CALIFORNIA COASTAL COMMISSION
SAN DIEGO AREA
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SAN DIEGO, CA 92108-4402
(619) 767-2370

Click for original staff report

F17a

Addendum

April 8, 2014

To: **Commissioners and Interested Persons**

From: **California Coastal Commission**
San Diego Staff

Subject: Addendum to **Item F17a**, City of Solana Beach Land Use Plan Amendment **#SOL-MAJ-1-13 (Bluff Top Development)** Revised Findings, for the Commission Meeting of April 11, 2014

Staff recommends the following changes be made to the above-referenced staff report:

1. On Page 12, Suggested Modification #3 shall be corrected as shown below; the key changes are the words "*The City shall*" in the first sentence should have been shown as new language and exhibit references have been added for additional clarification.

> ~~**"Figure 1A" shall be added as the first figure in Appendix B of the LUP (Reference Exhibit 6, provided by the City on 10/24/13). However, the figure shall be modified to**~~ **The City shall establish two different figures for options for shoreline protection in Appendix B of the LUP. The first figure shall** depict a seacave/notch infill **alternative** that consists solely of erodible concrete **(Figure 1A)** with comparable erosion parameters as the adjacent bluff and shall not include a higher strength concrete face on the seaward portion of the infill. The figure shall be ~~**re-**~~titled "~~**Preferred Solution –**~~Seacave/Notch Infill." **The second figure (Figure 1B) shall depict an erodible concrete infill alternative with a higher strength concrete face (Exhibit 6) and shall include notes consistent with the notes of the lower seawall alternative (shown in Exhibit 7 - Appendix B Figure 1 of the LUP). The Figures for Appendix B of the LUP shall then be renumbered accordingly.**

2. The description of 'Infill/Bluff Stabilization – Lower Seawall' on page 12 shall be revised as follows:

- **Infill/Bluff Stabilization – Lower Seawall (See Appendix B Figures 1B and 1C ~~1~~)** – This ~~**first**~~ solution is designed to address sea caves and undercut portions of the lower dense sandstone bluff where the clean sand lens is not yet exposed. If left uncorrected the sea cave/undercut will eventually lead to block failures of the lower sandstone, exposure of the clean sand lens and landward bluff retreat. This

failure exposes the clean sand lens of the upper bluff terrace deposits triggering rapid erosion and landward retreat of the upper bluff, which eventually endangers the structures at the top of the bluff. If treated at this stage, the bluff retention system will minimize the need for a future higher seawall and future upper bluff repair. **Figure 1B will consist of an erodible concrete infill with a higher strength concrete face on the seaward portion of the infill or will be** ~~**This stabilization method is**~~ designed as a structural wall and will be reinforced have structural tiebacks into the sandstone bedrock and will be required to have a textured face mimicking the existing material **(Figure 1C)**.

3. On Page 38, the seventh sentence of the first complete paragraph, under "Existing Shoreline Armoring Devices", shall be corrected as follows (new language is shown in underline and deletions are shown in strikeout):

Beginning in 2004~~5~~, the Commission, on a statewide basis, was better able to quantify the more complex scope of physically encroaching on the public beach and fixing the back of the beach (Ref: 3~~6~~-02-024/Ocean Harbor House).

4. On Page 40, the word "*depict*" in the fourth sentence of the last incomplete paragraph should not be shown in strike-out; it should read as follows:

~~A suggested modification to this LUP amendment requires that~~ The first new figure ~~Figure 1A~~ shall ~~be added to the LUP to~~ depict ~~the~~ a seacave/notch infill option that can be constructed pre-emptively, when the Factor of Safety is not near 1.0 and the bluff top structure is not imminently threatened.

5. On Page 41, the last paragraph shall be revised as follows:

Additional suggested modifications clarify that erodible concrete seacave/notch infills are generally not subject to the sand supply mitigation, public access and recreation mitigation, encroachment removal agreement, or authorization timeline policies of the LUP. The construction of a seacave/notch infill will help to prevent catastrophic bluff failure, but will still allow the bluff to erode landward, when maintained to do so. Seacave/notch infills are designed to erode at the same rate as the adjacent natural bluff, thus there will be no impacts to sand supply or to public access and recreation. Furthermore, since seacave/notch infills are designed to erode at the same rate as the natural bluff, if they function as designed, there will not be a need to physically remove the entire fill, and thus encroachment removal agreements and time limits for authorization are not needed. There may however be unique situations in which the design or maintenance of an erodible concrete seacave/notch infill effectively fixes the back of the beach and results in adverse impacts similar to those of a seawall. Thus, in some cases, sand supply mitigation, public access and recreation mitigation, encroachment/removal agreement, or authorization timeline policies of the LUP may apply and each proposal must be considered on a case-by-case basis.

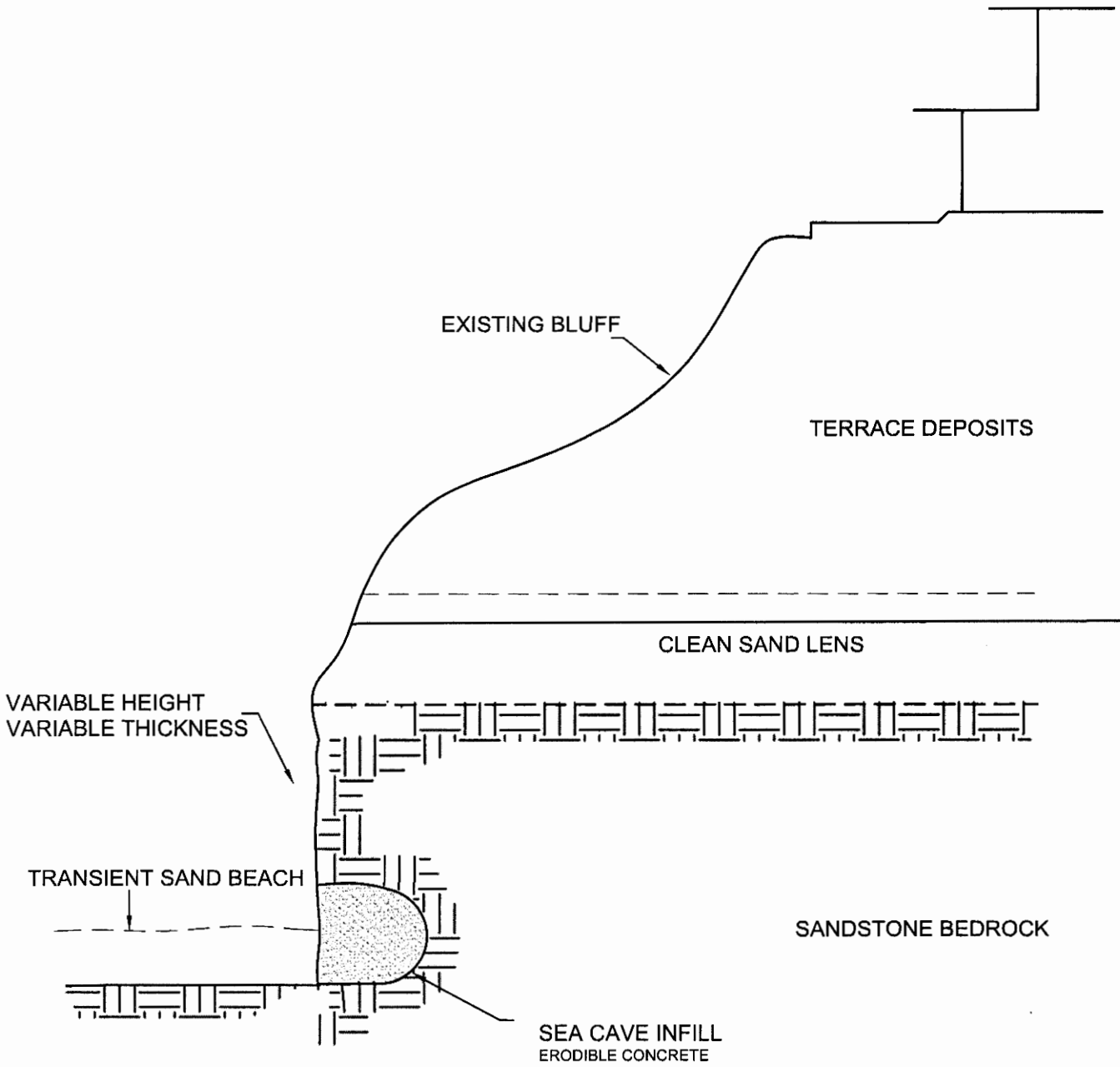
6. On Page 42, the first sentence in the first paragraph shall be shown as follows and underlined:

> Exhibit 6 shall also be modified to depict an erodible concrete infill with a higher strength concrete face and added to the LUP as the second new figure in Appendix B.

7. Exhibit #3 (Chapter 4 – Proposed Changes and Suggested Modifications) shall be added to the exhibit section of the electronic staff report. Changes by the city are shown in underline and in ~~strikeout~~. Commission Suggested Modifications are shown in **bold underline** and in **~~bold strikeout~~**. Exhibit #3 is available at our website www.coastal.ca.gov through a link in the electronic version of the Staff Report for this item.

8. The three attached Figures shall be included in Appendix B of the Land Use Plan.

(G:\San Diego\Reports\LCPs\Solana Beach\SOL-MAJ-1-13 Addendum Revised Findings.docx)



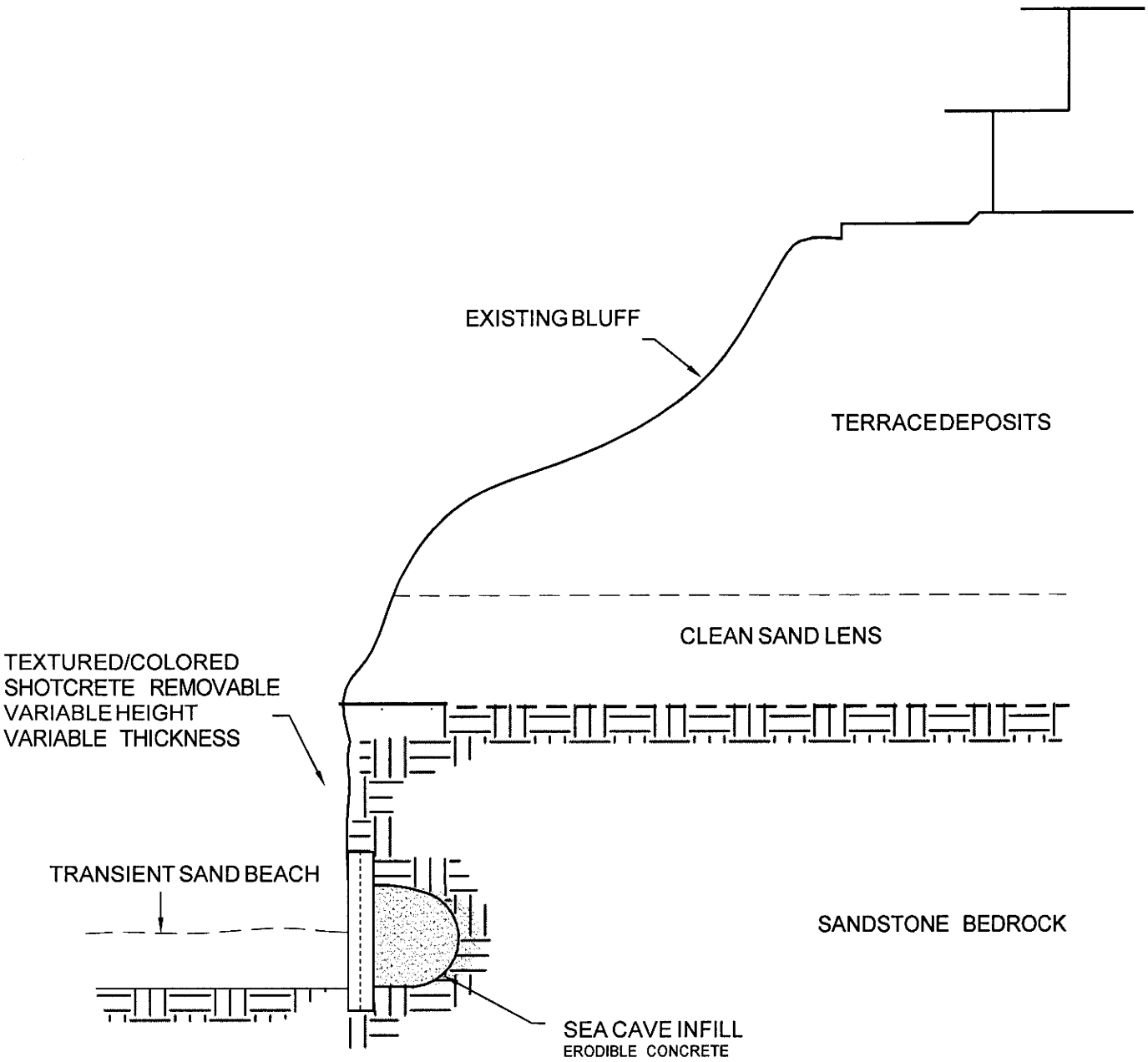
NOTES:

1. GEOTECHNICAL REPORT. (Required)
2. NOTCHED TO BEDROCK (4 DIRECTIONS)
3. MINIMIZE ALTERATION OF BLUFF-FACE ~~TO THE MAXIMUM EXTENT PRACTICAL/FEASIBLE~~ OR MIMIC EXISTING.
4. INCLUDE MONITORING FOR FUTURE MAINTENANCE AND REPAIR.
5. LOCATED AS LANDWARD AS POSSIBLE
6. NO SAND OR PUBLIC RECREATION FEES ASSESSED WITH THIS SOLUTION
7. ADDITIONAL ERODIBLE CONCRETE MAY BE REQUIRED AFTER SETTLING TO ASSURE MARGIN CONTACT WITH BLUFF

Seacave/Notch Infill

8

City of Solana Beach	Approved by CCC on 01/09/14 (LUPA)	**FIGURE NO. 1A**



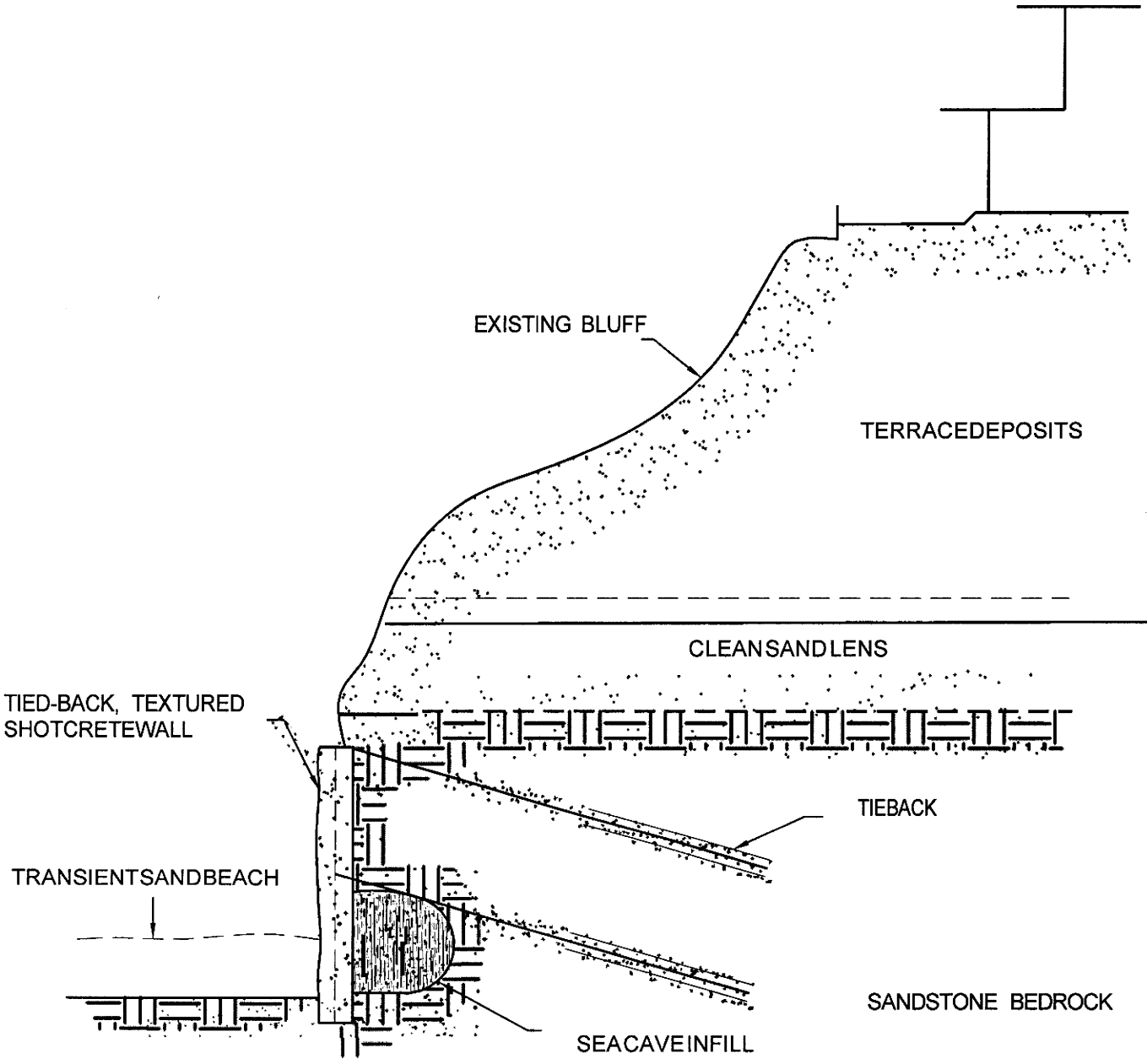
NOTES

1. FACTOR OF SAFETY NEAR 1.0.
2. GEOTECHNICAL REPORT
3. STRUCTURAL CALCULATIONS
4. LOCATED AS FAR LANDWARD AS POSSIBLE
5. MINIMIZE ALTERATION OF BLUFF-FACE OR MIMIC EXISTING.
6. INCLUDE DETAILED METHODOLOGY FOR MONITORING AND MAINTENANCE OVER THE LIFE OF THE DEVICE.
7. MINIMIZE THE NEED FOR ANY MAINTENANCE THAT NECESSITATES ADDITIONAL SEAWARD ENCROACHMENT OF THE DEVICE.
8. BLUFF FACE TO HAVE "NATURAL COLOR AND TEXTURE" (SBMC 17.62)

Seacave/Notch Infill with Concrete Facing

9

City of Solana Beach	Approved by CCC on 01/09/14 (LUPA)	FIGURE NO. 1B



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7. MINIMIZE THE NEED FOR ANY MAINTENANCE THAT NECESSITATES ADDITIONAL SEAWARD ENCROACHMENT OF THE DEVICE.
8. BLUFF FACE TO HAVE "NATURAL COLOR AND TEXTURE" (SBMC 17.62)

Infill/Bluff Stabilization - Lower Seawall

10

City of Solana Beach	Approved by CCC on 01/09/14 (LUPA)	FIGURE NO. 1C

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F17a

April 4, 2014

Delivered via email

To: Eric Stevens
California Coastal Commission
7575 Metropolitan Drive Ste 103
San Diego, CA 92108-4402

Re: Item F17a: REVISED FINDINGS ON CITY OF SOLANA BEACH LUP AMENDMENT No. SOL-MAJ-1-13 for Commission Meeting of April 11, 2014

Dear Mr. Stevens,

The Surfrider Foundation San Diego County Chapter recognizes beaches as a public resource held in the public trust. Surfrider Foundation is an organization representing 250,000 surfers and beach-goers worldwide that value the protection and enjoyment of oceans, waves and beaches. For the past decade, San Diego Chapter has reviewed and commented on coastal construction projects and policy in San Diego County. We appreciate the opportunity to provide comments to the California Coastal Commission about these important issues.

We commend the language in this staff report that balances the right of the public to access the beaches with the rights of private property owners.

Page 39:

> "The Commission still finds that the coastal resource impacts associated with shoreline armoring remains incompletely assessed....
>
> "As modified, Policy 4.17 is consistent with the public access policies of the Coastal Act, which require that development not interfere with the public's constitutional right of access the state's navigable waters, including the ocean shoreline. Protecting this constitutional right to access the shoreline in the city can be achieved, in part, through the provision of adequate mitigation for all impacts of existing and future shoreline armoring devices, the systematic removal of existing armoring devices and by limiting approval of future armoring devices through the movement of the line of bluff top development landward away from the eroding coastal bluffs so that this development does not require shoreline armoring devices that impede the public's right access the shoreline. ***Furthermore, the right of private property owners to protect existing structures does not compel the City to approve the construction or retention of private development, in the form of shoreline armoring, on public property if the rights of the public to access public trust lands cannot also be protected.***" (emphasis added)

The Surfrider Foundation is a non-profit grassroots organization dedicated to the protection and enjoyment of our world's oceans, waves and beaches through a powerful activist network. Founded in 1984 by a handful of visionary surfers in Malibu, California, the Surfrider Foundation now maintains over 250,000 supporters, activists and members worldwide. For an overview of the Surfrider Foundation San Diego Chapter's current campaigns, programs and initiatives go to www.surfridersd.org or contact us at info@surfridersd.org or (858) 622-9661.

Public Comment 11

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We also applaud the inclusion of Coastal Act Sections 30210, 30211, 30212, 30212.5, 30221, 30251, and 30253(c) in the discussion of public beach access, recreational use, and Chapter 4 Hazards and Shoreline/Bluff Development policies (pages 44-47).

In addition, we agree with the revised findings for the need for on-going reassessment of shoreline armoring and changed circumstances to ensure adequate mitigation of any impacts.

Pages 24-25:

> "Prior to 2005, the Commission only addressed the then quantifiable sand mitigation fee when it approved new shoreline armoring devices in Solana Beach....Inherent in the Commission's past calculation of the sand mitigation fee is the requirement that applicants return to the Commission in order mitigate the impacts of shoreline armoring devices for any impacts that may occur after the initial proposed design life. Given the significant impacts that existing and new seawalls can have on coastal resources, especially public access, recreation and sand supply, *it must be a high priority for the Commission and the City to ensure that all existing and new seawalls adequately mitigate for their impacts to sand supply, public access and recreation and any other impacts on coastal resources* so long as the seawalls exist and still serve the function of protecting the existing structure it was designed to protect....Policies of the City's LUP and Commission findings *for past shoreline armoring approvals provide for on-going reassessment of shoreline armoring devices and changed circumstances to assure all impacts are adequately mitigated.*" (emphasis added)

We would like to submit comments on the following areas:

1. Definition of 'significant alteration or improvement' is needed.

In its January 2014 action, the Commission approved the Land Use Plan Amendment with a suggested modification to the Land Use Plan (LUP) that replaced the existing fixed 20 year authorization period for shoreline armoring with policies to tie shoreline armoring authorization periods to the life of the structure requiring protection. Policy 4.17 was modified with the following language:

> "...any ***significant alteration or improvement*** to the existing structure shall trigger such review (i.e. the analysis of the seawall) and any unavoidable impacts shall be mitigated." (emphasis added)

The result of this revision is that "significant alteration or improvement" that extends the lifetime of the structure requiring protection would trigger additional mitigation on an existing seawall, including possible removal. However, the meaning of "significant alteration or improvement" is vague, and the LUP, as amended, lacks a definition of "significant alteration" or "improvement". If this is not addressed in the LUP, it definitely needs further clarification in the Local Implementation Plan (LIP).

Further references are made to "significant alteration or improvement" on the following pages:

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Page 23:

> "Pursuant to the modifications suggested by the Commission in its action approving the proposed Land Use Plan amendment, ***significant alteration or improvements*** and/or additions to such non-conforming structures shall include an analysis of the effect of those improvements on the economic life of the home and, by extension, the life of the shoreline device that is required to protect it in that non-conforming location. Options to modify, remove or replace the shoreline device shall be considered to avoid or minimize any impacts to coastal resources that have not been previously mitigated through approval of prior permits for development." (emphasis added)

Page 29:

> "Careful review of improvements to an existing blufftop residence that already requires a bluff retention device to protect it from erosion is particularly important. Retention of development too close to the bluff edge can lead to further landform alteration and impacts to public resources. Improvements that increase the economic life of the structure in a non-conforming and hazardous location can also reduce the incentive to move the structure landward to reduce risk and the need for protection. Therefore, ***significant improvements*** that extend the life of the structure in its current location should be limited and if approved, the need for additional mitigation and/or modification to the existing seawall should be evaluated." (emphasis added)

Page 38:

> "Additions and/or ***significant improvements*** to blufftop homes with existing armoring devices may extend the useful life of the homes indefinitely. In this scenario, if the addition or improvement did not qualify as redevelopment of the non-conforming homes, property owners could continue to enjoy the benefits of shoreline armoring devices, but may never adequately mitigate for the adverse impacts of these devices on coastal resources." (emphasis added)

Page 39:

> "Additions of less than 50% of the existing floor area of a home and/or ***significant improvements*** to a home that affect less than 50% of a major structural component would not be considered redevelopment. Alterations to a home below the redevelopment threshold would not require the home to be brought fully into conformance with current LUP standards. Thus, the home would not be required to be relocated landward to a location that does not rely on shoreline armoring. However, an addition of any size and/or a ***significant improvement*** may result in an extension of the useful life of a bluff top home which relies on existing shoreline armoring for protection. Therefore, revisions are needed to Policy 4.17 to require that the geologic analysis evaluate options to mitigate any previously unmitigated impacts of existing shoreline armoring devices and identify options to modify, remove, or replace shoreline armoring at the time of any addition to a

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bluff top home or at the time of a ***significant alteration*** to a bluff top home. In addition, existing armoring devices that are subject to re-evaluation pursuant to Policy 4.17 would be subject to the policies of the LUP that require the authorization period for shoreline armoring be tied to the life of the structure requiring protection, re-assessment of mitigation at 20 year intervals, and an assessment of the continued need for the shoreline armoring and any modifications that could reduce the armoring device's impact on coastal resources." (emphasis added)

As "significant alteration or improvement' is an important trigger for many aspects of the revised LUP, the definition of this terms needs to be clarified. Without clarification, there is too much uncertainty in terms of how this term may be interpreted by the city, developers, homeowners, and other stakeholders.

2. There is no definition of what constitutes erodible concrete and no data to support a conclusion that there is such a thing.

Revisions to LUP Chapter 4, Hazards and Shoreline Bluff Development, make repeated reference to a material called 'erodible concrete'. We have outlined in previous public comment and letters submitted to the Coastal Commission that 'erodible concrete' is a myth with no data to support the claim that it erodes at the same rate as the bluff. Erodible concrete lacks scientific evidence of erodibility.

References to 'erodible concrete are made in the following sections:

Pages 11-12

"...Chapter 4 Hazards and Shoreline Bluff Development:

"...Infill/Bluff Stabilization – Seacave/Notch Infill (See Appendix B Figure XX) – This first solution is designed to address sea caves and undercut portions of the lower dense sandstone bluff where the clean sand lens is not yet exposed. If left uncorrected, the sea cave/undercut will eventually lead to block failures of the lower sandstone, exposure of the clean sand lens and landward bluff retreat. This failure exposes the clean sand lens of the upper bluff terrace deposits triggering rapid erosion and landward retreat of the upper bluff, which eventually endangers the structures at the top of the bluff. If treated at this stage, the Bluff Retention Device will minimize the need for a future higher seawall and future upper bluff repair. This alternative is not designed as a structural wall, is not reinforced, does not include tiebacks, and ***uses only erodible concrete which shall erode at the same erosion rate as the surrounding natural bluff material***. The infill is required to maintain a textured and colored face mimicking the existing bluff material. ***Erodible concrete*** seacave/notch infills are designed to erode with the natural bluff and, when maintained to do so, are not subject to the sand supply mitigation, public access and recreation mitigation, encroachment/removal agreement, or authorization timeline policies of the LUP.

"...The City shall establish two different figures for options for shoreline protection in Appendix B of the LUP. The first figure shall depict a seacave/notch infill alternative that consists solely of ***erodible concrete*** with comparable erosion parameters as the adjacent bluff and shall not include

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a higher strength concrete face on the seaward portion of the infill. The figure shall be re-titled "Preferred Solution – Seacave/Notch Infill." The second figure shall depict an ***erodible concrete*** infill alternative with a higher strength concrete face (Exhibit 6) and shall include notes consistent with the notes of the lower seawall alternative (shown in Exhibit 7 - Appendix B Figure 1 of the LUP).

"...Infill/Bluff Stabilization – Lower Seawall (See Appendix B Figure XX and XX) – This solution is designed to address sea caves and undercut portions of the lower dense sandstone bluff where the clean sand lens is not yet exposed. If left uncorrected the sea cave/undercut will eventually lead to block failures of the lower sandstone, exposure of the clean sand lens and landward bluff retreat. This failure exposes the clean sand lens of the upper bluff terrace deposits triggering rapid erosion and landward retreat of the upper bluff, which eventually endangers the structures at the top of the bluff. If treated at this stage, the bluff retention system will minimize the need for a future higher seawall and future upper bluff repair. Stabilization will consist of an erodible concrete infill with a higher strength concrete face on the seaward portion of the infill or will be designed as a structural wall and will be reinforced, have structural tiebacks into the sandstone bedrock and will be required to have a textured face mimicking the existing material." (emphasis added)

Concrete has not been demonstrated to erode. In order for concrete to be removed without backhoes or similar equipment, it must be designed to be removed with minimal disruption. Literature from standard setting organizations (ACI 229R-99 from the American Concrete Institute as approved in 2005 http://www.azmag.gov/Documents/pdf/cms.resource/ACI229_-_CLSM46175.pdf) offers the following:

"4.3.7 Excavatability— The ability to excavate Controlled Low Strength Material (CLSM) is an important consideration on many projects. In general, CLSM with a compressive strength of 0.3 MPa (50 psi) or less can be excavated manually. Mechanical equipment, such as backhoes, are used for compressive strengths of 0.7 to 1.4 MPa (100 to 200 psi) (Fig. 4.1). The limits for excavatability are somewhat arbitrary, depending upon the CLSM mixture. Mixtures using high quantities of coarse aggregate can be difficult to remove by hand, even at low strengths. Mixtures using fine sand or only fly ash as the aggregate filler have been excavated with a backhoe up to strengths of 2.1MPa (300 psi). When the re-excavatability of the CLSM is of concern, the type and quantity of cementitious materials is important. Acceptable long-term performance has been achieved with cement contents from 24 to 59 kg/m3 (40 to 100 lb/yd3) and Class F fly ash contents up to 208 kg/m3 (350 lb/yd3). Lime (CaO) contents of fly ash that exceed 10% by weight can be a concern where long-term strength increases are not desired. Because CLSM will typically continue to gain strength beyond the conventional 28-day testing period, it is suggested, especially for high cementitious-content CLSM, that long-term strength tests be conducted to estimate the potential for re-excavatability. In addition to limiting the cementitious content, entrained air can be used to keep compressive strengths low."

No known installation has been built in Solana Beach that demonstrates the desired erosion characteristics or excavilibility. It would seem appropriate to create a standard based on measured data

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instead of accepting anecdotal claims of engineers in saying the concrete erodes at the same rate as the bluffs. Homogeneous fills do not mimic erosion rates in heavily faulted and geologically heterogeneous bluffs.

3. Seacave notchfills are constructed on public lands in Solana Beach and should be subject to mitigation and encroachment/removal agreements.

Seacave notchfills in Solana Beach are constructed on public lands. If the city wishes to charge fees for use of their land they should not be prohibited from doing so under the LUPA. In addition, seacave notchfills have the same impact in fixing the back beach. Some seacaves for example are up to 80 feet deep. The filling of these seacaves prevents 80ft of beach from being created when the cave collapses. Other caves/notches proposed for filling are on the order of 4-15ft. Given that the driplines of these caves notches remain in place, the net effect is fixing the beach at the dripline. Furthermore, if a the seacave notchfill is consistently maintained, it will have the same overall impact as a seawall in terms of fixing the back beach. Hence mitigation fees should be assessed for seacave notchfills, much as they are for seawalls. Chapter 4, Hazards and Shoreline Bluff Development, should be modified to reflect the reality of this situation.

Page 11:

> "Erodible concrete seacave/notch infills are designed to erode with the natural bluff and, when maintained to do so, are not subject to the sand supply mitigation, public access and recreation mitigation, encroachment/removal agreement, or authorization timeline policies of the LUP."

4. Bluff Top redevelopment should not be the only trigger for removal of a protective device.

We commend the staff for pointing out the possible future scenario of no public beaches in the city of Solana Beach:

Page 37:

> "As discussed previously, a possible future scenario for Solana Beach if the entire shoreline is armored is that, as sea level rises, there may no longer be a public beach. In the future, it may no longer be possible to provide adequate mitigation for the impacts that shoreline armoring causes to public beaches. Thus, while future beach replenishment projects may allow the continued provision of public beach even to the point that additional shoreline protection is not needed, it may also be possible that future beach replenishment projects are not successful and the beach is no longer accessible to the public due to rising water levels."

Given this possible scenario, bluff top redevelopment should not be the only trigger for removal of a protective device. If public beach access is lost in Solana Beach due to a combination of sea level rise and protective devices, sufficient mitigation will not be possible. Therefore loss of beach access should also be a trigger for removal of a protective device. However, as amended, policy 4.52 only ties permit

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expiration to blufftop redevelopment.

Page 37:

> "As amended by the City and through suggested modifications by the Commission, Policy 4.52 would read as follows:
>
> > *"Policy 4.52: All permits for bluff retention devices shall expire when the currently existing blufftop structure requiring protection is redeveloped (per definition of Bluff Top Redevelopment in the LUP), is no longer present, or no longer requires a protective device, whichever occurs first and a new CDP must be obtained. Prior to expiration of the permit, the bluff top property owner shall apply for a coastal development permit to remove, modify or retain the protective device. In addition, expansion and/or alteration of a legally permitted existing bluff retention device shall require a new CDP and be subject to the requirements of this policy"*

Thank you for reviewing our comments.

Sincerely,

Jim Jaffee
Co-chair of the Beach Preservation Committee, San Diego County Chapter of the Surfrider Foundation
Resident of Solana Beach

Kristin Brinner
Beach Preservation Committee Member, San Diego County Chapter of the Surfrider Foundation
Resident of Solana Beach

Julia Chunn-Heer
Policy Manager, San Diego County Chapter of the Surfrider Foundation

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CHAPTER 4—HAZARDS & SHORELINE / BLUFF DEVELOPMENT

A. Introduction

Within the City of Solana Beach there are three primary types of natural hazards including hillside-related geologic hazards, flooding hazards, and fire hazards. Hillside-related geologic hazards occur in the City due to the presence of steep slopes and coastal bluffs and are shown in Exhibits 4-1 – 4-5. Flood hazard areas in the City are related to the existence of the 100-year flood plain and are shown in Exhibit 4-6. Fire hazards in the City are related to the presence of a WUI which exists in much of the northern part of the City as shown in Exhibit 4-7. Policies related to each of these natural hazard areas are included in the LUP.

Over the past half-century, human actions have been the major influence affecting the City and the shoreline. Through urban development activities, including water reservoir and dam building, road building, residential and commercial development on coastal hillsides, flood control systems, and sand mining, natural sediment transport to the beach has been hindered or eliminated. All major coastal rivers in the region have at least one dam and reservoir and are bisected by at least one major roadway. Much of the sediment-laden fresh water that would naturally flow to coastal wetlands is diverted to farms and city water distribution systems. Dams and roads reduce the size of flood flows and thus reduce the flushing of sediment from estuaries, trapping the sand that would otherwise nourish coastal beaches.

Beach sand is a product of the weathering of the land. The primary natural source for the region's beaches is sediment carried from inland areas by rivers and streams. Coastal bluff erosion is another source of beach sand. Offshore sand supplies (relic or ancient beaches) may be a natural source of beach sand, but these resources are an under-examined component of the littoral sand budget. Beach sand is the primary buffer protecting sea cliffs and coastal development from erosion and storm damage. To offset the loss of natural sand sources no longer reaching the shoreline, previous projects have built man-made beaches by conducting beach nourishment projects. Most of the sand for this purpose has come from offshore borrow sites, as well as, harbor dredging projects in San Diego Bay and in Oceanside Harbor.

The natural sand cycle of sand movement is a seasonal process. For the San Diego region, beach sand loss typically occurs in the winter due to large storms and waves, followed by a period of sand gain during the summer's gentler storms and surf. During the winter, sand shifts from the beach above the mean sea level to offshore covered by seawater. These combined seasonal processes, including both winter and summer sand shifts, comprise a complete sedimentation cycle. A coastal segment that contains a complete sedimentation cycle is defined as a littoral cell. Along the San Diego region's coast there are three littoral cells that cycle sand on and off the beaches and along shore in a zig-zag pattern. Bounded on one side by the landward limit of the beach and extending seaward beyond the area of breaking waves (beyond the depth of closure), a littoral cell is the region where wave energy dissipat

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Littoral cells are physically interconnected; occurrences in one part of a littoral cell will ultimately have an impact on other parts. There are three littoral zones off of the San Diego region including the Oceanside Littoral Cell, the Mission Bay Littoral Cell, and the Silver Strand Littoral Cell.

Solana Beach is located within the southern half of the Oceanside Littoral Cell. Other than the San Elijo Lagoon this portion of the littoral cell it does not have any major river, stream, or other resources that continually or directly provide a sand supply to the beach. Sediment flowing through the lagoon is blocked by at least three transportation corridors, including I-5, the NCTD berm, and Highway 101. Thus, the City's beaches are experiencing a net loss of sand. The reach from southern Oceanside to northern Del Mar is dependent on longshore transport of sand from the north and south. Longshore sand transport is driven by waves breaking at an angle to the shoreline. Transport is generally southward in winter and northward in summer. Sand also moves onshore and offshore seasonally. Under the present conditions of sand starvation, the small contribution from cliff erosion in Solana Beach gets immediately swept away. Seacliff erosion is a natural process occurring throughout San Diego County generally and in Solana Beach specifically, which in the last several decades has been greatly accelerated by a variety of factors including the El Nino storms of 1997-1998. Armoring of the shoreline, sea level rise, the lack of sand replenishment due to the damming of and mining in coastal rivers that formerly carried to the ocean much greater amounts of sediment than are currently being delivered.

Throughout much of Solana Beach, horizontally-bedded clean sand beach deposits exist within the lower part of the coastal bluffs. The clean sand layer exposed within the coastal bluffs in Solana Beach, typically between elevation 25 feet and 35 feet (MSL), cannot stand vertical. Once exposed, tends to continually erode and slough undermining the overlying lightly cemented dune sands triggering additional failures higher up on the bluff face. Wherever these clean sands are exposed by a cliff failure, the bluff becomes unstable, and susceptible to additional accelerated failure. Ongoing and progressive upper-bluff failures continue to this day along the Solana Beach coastline. Overlying the beach sands are thick sand dune deposits, which comprise much of the middle Bay Point Formation in this area and likely part of a dune field that overran the beach deposits after the sea retreated. These clean relic beach sands have not been encountered in other Bay Point Formation exposures extending from the Point Loma Peninsula in central San Diego, up to the northerly limits of San Diego County.

It is this relatively unstable geologic environment that has necessitated shoreline stabilization along much of the City's coastline north of Fletcher Cove. The clean sand lens instability has prompted the City of Solana Beach to adopt "Preferred Bluff Stabilization Measures (LUP Appendix B)." Seacliff erosion is the primary reason why shoreline protection management remains a critical issue in Solana Beach.

Exhibit 4-1

Exhibit 4-2

Exhibit 4-3

Exhibit 4-4

Exhibit 4-5

Exhibit 4-6
Flood Map

Exhibit 7
WUI Map

1. Coastal Act Provisions

Under the Coastal Act, development is required to be sited and designed to minimize risks, assure stability and structural integrity, and neither create nor contribute significantly to erosion or require the construction of protective devices that would substantially alter the natural landforms along bluffs and cliffs (Section 30253). Section 30235 of the Coastal Act allows the construction of bluff retention devices where existing structures are threatened from erosion and when designed to eliminate or mitigate impacts on shoreline sand supply. The Coastal Act also provides that development damaged or destroyed by disasters can be rebuilt in the same location, exempt from a CDP, under certain conditions. Certain emergency actions are also exempt from permit requirements.

2. Land Use Plan Provisions

To ensure consistency with the Coastal Act, the policies contained below in the LUP are intended to facilitate development and redevelopment in a manner which minimizes impacts from hazards as well as impacts to coastal resources, including public access and recreation. The primary objectives of the City in reducing flood, fire and geologic hazards in the City include the establishment of policies that manage, reduce, minimize and/or avoid risks associated with known hazards in the City.

Reducing the potential adverse effects of shoreline hazards include implementing comprehensive and long-term shoreline management strategies, policies and programs that promote beach sand replenishment and retention to reduce the need for shoreline protection devices.

Where the clean sand lens is not exposed along the coastal bluff, seacave and infills may be considered as appropriate solutions that can avoid or postpone the need for larger shoreline protection device.

The LUP policies, goals, and requirements regarding natural hazards and shoreline and bluff development can be summarized as follows:

- Maintaining public ownership of the bluffs and beaches; Prohibiting new development that could require shoreline protection, and new land divisions which create new lots within high hazard areas;
- Requiring that new development on oceanfront bluffs be set back in accordance with all provisions of the LCP;
- Providing that applicants assume the risk of building in hazardous areas without the expectation that future bluff protection devices will be allowed;
- Acknowledging that the shoreline is inherently a changing, unstable area, and development along the shoreline should never be considered permanent.
- Regulating development to avoid the need for mid and upper bluff shoreline protection;

- Developing emergency permit procedures, follow-up actions and monitoring to ensure that the emergency response, whether temporary or permanent, is the least environmentally damaging alternative to the extent feasible;
- Providing for the development of long-term shoreline management policies; Including measures to establish periodic nourishment of the City's beaches which are vulnerable to direct wave attack and erosion to assure long-term maintenance of beach area for public recreational use;
- Monitoring the issue of potential future sea level rise, both in the short term via permitting actions and a long-term response to address future development impacts along the shoreline;
- Siting and designing development to avoid or minimize risk from geologic, flood and fire hazards;
- Implementing a HOZ program for siting and designing development and to minimize grading and vegetation clearance on steep slopes;
- Providing that development utilize adequate drainage and erosion control measures both during construction and as a long-term feature; and,
- Requiring that new development be sited and designed to avoid the impacts of fuel modification and brush clearance on native habitat and neighboring property, particularly parkland.

This LCP includes an LUP and Local Implementation Plan (LIP) which will contain LIP implementing ordinances, and other code amendments, as needed, to implement the LCP. The following policies and plans are intended to implement the LCP.

It is essential that the implementation of the programs recommended herein, and achievement of the goals set forth herein, be balanced between public and private interests. The City is committed to implementing the above stated goals and strategies of the LCP~~, including, without limitation, replenishment and retention of beach sand. Sand Mitigation Fees may be expended for sand replenishment and retention projects, and Public/Recreation Fees may be expended for public access and public recreation improvements.~~

This section addresses shoreline structures that alter natural shoreline processes. This section is intended to set the general policy framework for implementing the LCP.

The shoreline of Solana Beach is characterized by a narrow strip of sandy beach at the foot of coastal bluffs. This shoreline consists of public beach access points, public infrastructure improvements, private residences, the Fletcher Cove Community Center, Fletcher Cove Park, the City of Solana Beach Marine Safety Center, and other structures on the tops of the bluffs. Many improvements are situated within twenty-five feet of the bluff edge due to erosion or the siting of the original construction or both. The City's coastal bluff edge and 25' and 40' setback lines are shown in Exhibit 4-1, 4-2, 4-3, 4-4, and 4-5. Because of the narrowness of the beach and lack of a sand buffer, the bluffs are subjected to wave action, particularly during the winter months. Surficial

or subaerial erosion has also resulted from wind, rain, irrigation, storm water drainage, construction, elimination or reduction in upland sand sources to the coast, sand retention devices to the north of the City and climbing activity on the face of the bluff.

A variety of bluff retention devices including seacave or notch infills, have been constructed in the Solana Beach in an attempt to protect bluff homes. However, based on the need to encapsulate the clean sand lens once it becomes exposed, these small protective efforts are often expanded over time into larger 35-foot high seawalls, with mid-bluff reconstruction and upper bluff retaining walls that together cover a larger portion of the bluff face.

In compliance with the Coastal Act, the goal of the LCP is to limit bluff retention devices on the public bluffs and beach area while protecting public and private property rights to the extent required by law and the health, safety, and welfare of residents and the public. The City's shoreline has largely been built out, and many of the existing structures located along the City's bluff tops were built in a location that is now considered at risk from shoreline erosion. Thus, some amount of lower bluff protection has been and will continue to be unavoidable to protect existing structures in danger from erosion pursuant to Section 30235 of the Coastal Act. However, the LCP policies acknowledge that modifications to the building footprint and its foundation further inland on private property ~~will be considered feasible~~ must be analyzed as a potentially feasible alternatives to avoid additional mid and upper bluff stabilization and alteration of the natural landform on public property to protect private development. Such stabilization measures can have particularly extensive adverse impacts on the natural bluff landform and the scenic quality of the shoreline even beyond those associated with lower bluff protection. In all cases, impacts from these devices on public access, recreation, scenic resources and sand supply must be mitigated.

For all new development, the LCP requires that the development be designed so that it will neither be subject to nor contribute to bluff instability, and is sited safely without reliance on existing or future shoreline protection.

The City is currently engaged in local, regional, state, and federal efforts to implement a comprehensive and long-term beach sand replenishment program. The LCP includes an approval process that emphasizes preferred bluff retention solutions and conditions of approval requiring the bluff property owner to agree to certain requirements, including the payment of mitigation fees.

The City's preferred bluff retention systems are derived from the most recent designs approved by both the City and the CCC and are contained in LUP Appendix B. Although generalized these designs represent the retention systems preferred by the City and have been accepted by the CCC as reflected in recently approved permits.

The following describes the types of preferred bluff retention systems to protect the lower bluff only:

- **Infill/Bluff Stabilization – Seacave/Notch Infill (See Appendix B Figure 1A) – This first solution is designed to address sea caves and undercut portions of the lower dense sandstone bluff where the clean sand lens is not yet exposed. If left uncorrected, the sea cave/undercut will eventually lead to block failures of the lower sandstone, exposure of the clean sand lens and landward bluff retreat. This failure exposes the clean sand lens of the upper bluff terrace deposits triggering rapid erosion and landward retreat of the upper bluff, which eventually endangers the structures at the top of the bluff. If treated at this stage, the Bluff Retention Device will minimize the need for a future higher seawall and future upper bluff repair. This alternative is not designed as a structural wall, is not reinforced, does not include tiebacks, and uses only erodible concrete which shall erode at the same erosion rate as the surrounding natural bluff material. The infill is required to maintain a textured and colored face mimicking the existing bluff material. Erodible concrete seacave/notch infills are designed to erode with the natural bluff and, when maintained to do so, are not subject to the sand supply mitigation, public access and recreation mitigation, encroachment/removal agreement, or authorization timeline policies of the LUP.**

- **Infill/Bluff Stabilization – Lower Seawall (See Appendix B Figures 1B and 1C~~4~~)** – This ~~**first**~~ solution is designed to address sea caves and undercut portions of the lower dense sandstone bluff where the clean sand lens is not yet exposed. If left uncorrected the sea cave/undercut will eventually lead to block failures of the lower sandstone, exposure of the clean sand lens and landward bluff retreat. This failure exposes the clean sand lens of the upper bluff terrace deposits triggering rapid erosion and landward retreat of the upper bluff, which eventually endangers the structures at the top of the bluff. If treated at this stage, the bluff retention system will minimize the need for a future higher seawall and future upper bluff repair. **Figure 1B will consist of an erodible concrete infill with a higher strength concrete face on the seaward portion of the infill or will be** ~~**This stabilization method is**~~ designed as a structural wall and will be reinforced, have structural tiebacks into the sandstone bedrock and will be required to have a textured face mimicking the existing material **(Figure 1C)**.

- **Higher Seawall/Clean Sand Lens Encapsulation (See Appendix B Figure 2)** – If the clean sand lens has been exposed, it may be necessary to build a seawall high enough cover this segment of the bluff face. This method consists of a structurally engineered seawall (with tiebacks into the sandstone) approximately 35' high to protect and encapsulate the clean sand lens at the base of the terrace deposits. The wall is required to have a textured face

mimicking the existing material. If treated at this stage, the bluff retention system will minimize or prevent the need for future mid or upper stabilization.

The City's preference for protecting existing principal structures in danger from erosion is relocating/rebuilding the principal structure on the site to a location that is stable per ~~LUP~~ Policy 4.24. If all feasible alternatives to mid and upper bluff protection have been excluded, then the following types of upper bluff retention systems may be utilized with a lower seawall when collapse of the mid and upper bluff threatens an existing principal structure:~~:~~

~~The following describes types of the City's preferred upper bluff retention systems that may be utilized with a lower seawall when collapse of the mid and upper bluff threatens an existing principal structure:~~

- **Seawall and Upper Bluff Repair (See Appendix B Figure 3)** – This retention system is an all-encompassing bluff stabilization measure and shall only be used when bluff failures have caused exposure of the clean sand lens and significant erosion of the mid and upper bluff. Encapsulation of the clean sand lens is needed to protect the bluff top principal structure from potential damage. This repair consists of a structurally engineered seawall (with tiebacks into the sandstone) approximately 35' high to protect and encapsulate the clean sand lens at the base of the terrace deposits. The upper bluff is reconstructed at a stable angle by bringing in additional soil which is then reinforced with a geogrid fabric. The lower seawall is textured to simulate the existing bluff material and the upper soil is similar to the existing soil and is hydro-seeded **and planted with container plantings consisting of** ~~**with**~~ native, drought tolerant, non-invasive, and salt tolerant vegetation.

- **Upper Bluff Repair (See Appendix B Figure 4)** – This repair is used where there is a pre-existing lower bluff seawall, and/or infill/bluff repair and shall only be used when there is a need to stabilize the upper bluff terrace deposits to provide structural protection due to upper bluff failures or extreme erosion. When feasible, the building footprint and foundation should be moved inland and the bluffs left in a natural state. The repair is much like the upper bluff stabilization described in Preferred Solution #3~~)~~. It should ~~and~~ take~~ing~~ into account lateral migration of erosion from adjacent properties, which would involve benching and placing erodible concrete between the clean sand lens and the bluff face to assure that the clean sand erosion does not undermine the stability of the upper bluff and bluff top principal structure. The slope is then rebuilt and reinforced to create an adequate safety factor to protect the upper bluff structure.

  Caisson and Tieback Alternative (See Appendix B Figure 5) – This bluff retention system, consists of drilled reinforced concrete caissons (24 inches or greater in diameter). These structurally designed caissons are drilled down to or into the lower sandstone bedrock, shall be below grade, and as far landward as

possible to avoid exposure of the drilled caisson in the future. In many cases, to avoid future exposure, the structure requiring stabilization can also be moved further inland to a location that, in connection with the lower seawall, will assure stability of the structure and avoid alteration of the natural landform of the bluffs. In any event, it is required, as a condition of approval that the homeowner post a bond for a future reinforced concrete face to be constructed if the caissons are exposed. Additional tiebacks may be required at that time.

Prior to approval of any upper bluff retention system, a detailed alternative analysis must be performed, consistent with Policy 4.5<u>1</u>4. In addition, per Policy 4.5<u>1</u>4, on sites where there is existing lower bluff protection, no upper bluff retention system shall be approved unless it has been determined that removing and relocating/rebuilding the principal bluff top structure with a caisson foundation system in a location that will avoid future exposure and alteration of the natural landform is infeasible, resulting in a taking of private property for public use without just compensation.

Once the LCP is certified, the City will have jurisdiction to issue CDPs for projects landward of the MHTL, with the CCC retaining appeal jurisdiction only in those areas described in Section 30603 of the Coastal Act. Both before and after the certification of the LCP, the CCC retains original jurisdiction over development located on tidelands, submerged lands, filled and unfilled public trust lands). Accordingly, applications for all bluff retention devices to be sited seaward of the MHTL, within the Commission's original jurisdiction shall be submitted to the City for a major use permit and then to the Coastal Commission for a CDP.

All permits issued for developments within an area appealable to the CCC must be approved through a public hearing process. Appeal jurisdiction for the CCC is defined in Section 30603 of the Coastal Act and includes such geographic areas as those between the sea and the first public road paralleling the sea or within 300 feet of the inland extent of any beach or the MHTL where this is no beach, whichever is the greater distance; and any areas located within 300 feet of the top of the seaward face of any coastal bluff, or within 100 feet of any wetland, estuary, or stream; and any major public works project or major energy facility.

In cases where proposed development is bisected by the CDP jurisdiction boundary line, an applicant may, if all parties are in agreement (i.e., the City, the CCC, and the property owner), apply for a consolidated CDP from the CCC without needing to obtain a CDP from the City. Chapter 3 policies of the Coastal Act are the standard of review for such permits, with the City's certified LCP used for additional guidance.

To the extent an applicant proposes a bluff retention device which is designed in accordance with the preferred bluff retention solutions, the City will expedite processing and there will be a presumption of compliance of the design of the bluff retention device with the LCP. Nevertheless, the applicant will be required to establish the need for the bluff retention device in accordance with the findings stated below in Policies 4.4<u>7</u>5~~0~~,

4.4851 and 4.503.

The LCP contains provisions for imposing Sand Mitigation Fees and compliance with the City's Public Recreation Fees. Bluff property owners who construct bluff retention devices shall pay the City a Sand Mitigation Fee. The Sand Mitigation Fee formula is based on the CCC formula and is detailed in Appendix A.

In April 2010, the City completed a draft fee study and conducted a public hearing on the fee study to determine the amount of fees that maybe appropriately assessed as mitigation for the potential adverse effects on public recreation and public lands resulting from placing a bluff retention device on a public beach. The City received a substantial number of comments on the fee study from local stakeholders including property owners, surfers and CCC staff and the fee study remains a draft. Because this is a statewide issue, the City will provide this draft study and the data developed by the City to the CCC. The City will coordinate with the CCC and other state regulatory entities in developing a uniform statewide Public Recreation / Land Lease Fee.

Based on the October 2010 MHTL survey, the land on which bluff retention devices are proposed to be located may include public lands owned by the State of California, the City of Solana Beach or both. In addition, the location of the MHTL is constantly changing. The City is collecting a $1,000 per linear foot fee deposit to be applied towards a future Public Recreation/Land Lease Fee. Therefore, until such time as a final Public Recreation / Land Lease Fee is adopted by the City following Coastal Commission approval of such a payment and certification of an LUP amendment adding to the City's LCP, the City will continue to impose an interim fee deposit in the amount of $1,000 per linear foot to be applied as a credit toward the Public Recreation / Land Lease Fee. The City shall complete its Public Recreation/Land Lease fee study within 18 months of effective certification of the LUP. In association with approval of any bluff retention device on public land, the City will also require an encroachment/removal agreement to be renewed at least every 20 years. Additional mitigation for impacts to public access and recreation may also be required through site-specific review and approval of the coastal development permit.

The City will continue to aggressively pursue implementation of a comprehensive beach sand replenishment and retention program as the best approach to buffer bluffs from wave attack and reduce the need for bluff retention devices. Environmentally sound local, regional, state and federal beach sand replenishment and retention programs that the City is actively advancing include:

- Sand Compatibility and Opportunistic Use Program (SCOUP)
- Regional Beach Sand Project #2
- Regional Coastal Sediment Management Master Plan
- U.S. Army Corps Shoreline Protection Project for Solana Beach and Encinitas
- Southern California Reef Technology Project at Fletcher Cove

The City will continue to actively seek state and federal funding for expedited

implementation of these programs and has prioritized the creation of a wider beach and a beach profile that can feasibly be established and maintained on City beaches for shoreline protection and recreation benefits. In implementing sand replenishment and retention programs, care will be taken such that any such program shall not result in net material degradation of existing surfing or other recreational or wildlife resources including near shore habitat.

The sand replenishment and retention programs are funded from a combination of sources including CCC Sand Mitigation and Recreation Impact Fees held by SANDAG, City imposed mitigation fees, taxes, assessments, grants and federal appropriations. Goals, implementing plans and budgets for each program have been established, and are periodically reviewed by the City and are modified as needed.

A variety of sand retention systems will be carefully analyzed by the City, and may be evaluated by SANDAG before being deployed. The effectiveness of any such system, its potential environmental effects, the impact on recreational activities, aesthetics and safety, and other relevant issues will be addressed in compliance with CEQA and NEPA.

Beach replenishment and sand retention projects can be done concurrently or separately depending on funding resources and permitting constraints. Replenishment and retention are addressed separately below, but are being considered by the City in a coordinated fashion for maximum shoreline protection and recreational benefit.

The LCP includes standards that will be used to determine the need for bluff retention devices. Bluff retention devices shall provide for reasonable and feasible mitigation for their net impacts, such as the payment of mitigation fees.

Slope stability is a significant concern in Solana Beach along the entire coastal bluff area. These steep coastal bluffs have experienced loss of soil and rock resulting from a combination of natural forces and human activities. Ocean wave action weakens the base of the bluffs, particularly when high tides combine with high waves associated with Pacific Ocean storms.

Urban development on the bluff tops has placed increased loads on the geologic substructure. A combination of the lack from protective beach, saturation of bluff sands and increased subsurface flow resulting rain or from urban irrigation, contributes to weakening of the bluffs and surficial erosion. This erosion is generally experienced as sudden slippage rather than gradual movement. Loss of beach sand in recent years has further aggravated problems of slope instability. In response, shore protection devices have been used to abate further erosion, and to protect public recreational uses and private property.

Like much of southern California, Solana Beach lies within a region of high seismic activity. An offshore extension of the Rose Canyon fault lies approximately two miles

west of Solana Beach. This fault is considered active by the State of California and a strong earthquake along this fault would create moderate to severe ground shaking in the City. Seismically-induced ground shaking in hillside areas could result in slumping or landslides in areas of slope instability.

Certain parts of Solana Beach may be subject to liquefaction which occurs when poorly consolidated and saturated soils lose their strength due to seismic shaking. The potential for liquefaction in the City is greatest in the area between Stevens Avenue and Valley Avenue, and in the area north of Via del la Valle between Del Mar Downs and Stevens Avenue. These two areas are underlain by poorly consolidated alluvium and slope wash that could liquefy during an earthquake depending on groundwater elevations.

Flooding problems in Solana Beach have historically occurred in the area near Stevens Avenue and Valley Avenue. Although City drainage system facilities are adequately sized to handle flood flows, capacity problems with downstream flood control facilities south of Via de la Valle have occasionally caused floodwaters to back up into the Stevens Avenue/Valley Avenue area.

Flood hazard areas in Solana Beach have been mapped through the National Flood Insurance Program administered by the U.S. Department of Housing and Urban Development (HUD) and the Federal Emergency Management Agency (FEMA) and are shown in Exhibit 4-6. The Flood Insurance Rate Map (FIRM) for the area identifies areas exposed to potential 100-year and 500-year flooding, including coastal flood hazard areas. Given the extent of existing urban development in Solana Beach, additional flooding effects resulting from new development on downstream areas are likely to be minor.

Fire hazards in Solana Beach may be classified as either structural fires or vegetation fires. The Solana Beach Fire Department is responsible for responding to both types of fire. For structural fires, the department designates certain locations, such as schools and higher density residential development as potential high life safety hazard areas.

Many properties in the northern part of the City are located within the WUI and have been designated by the State as being in a high or very high fire hazard severity area and are shown in Exhibit 4-7. The CalFire maps are posted on the City's website at http://www.cityofsolanabeach.org/csite/cms/app_engine/assets/images/cd_wui.pdf.

Many of the northern-most line of homes in the City (closest to the San Elijo Lagoon) are contiguous to sensitive native habitat areas identified by the City as ESHA. One of the key goals of this Chapter of the LUP is to establish policies for the WUI that reduce fire hazard risk in the City to lives and property and also reduce the need for a 100-foot buffer between vegetation and homes thereby avoiding or reducing vegetation management practices. By establishing equivalent methods of fire risk reduction for homes in the WUI, and incorporating them into project design, the Fire Marshal is able

to reduce the need for fire-risk reduction related vegetation management for existing homes, remodels, and new development.

Thinning of plant materials and other vegetation management practices reduce the fire risk for existing and new structures. Creating a defensible space around a structure acts as a barrier between a structure and an advancing fire. Maintaining a defensible fire space around structures is essential, and in some cases required, for protection against fire.

Uncontrolled wildfires pose a serious threat to human lives and property, but are generally part of the natural disturbance cycle of adjacent wildlands. The propensity of wildlands to carry fire to surrounding developments usually necessitates the provision of fuel breaks in order to reduce or eliminate the likelihood of damage to property. Properly maintained fuel modification zones and fire breaks will reduce the incidence of fires spreading from developed areas to natural land and lower the potential impacts of unseasonable and frequent wildfires to listed species and their habitats.

The LUP contains policies which require that any new development is sited and designed to avoid the need for fuel modification within ESHA. One potential method of reducing fire risk to properties adjacent to the WUI is to install a non-combustible wall thereby reducing the vegetation management zone. ESHA protection policies are contained in Chapter 3. Additionally, the LUP contains policies that require mitigation for impacts resulting from the removal, conversion, or modification of natural vegetation that cannot be avoided through the implementation of project alternatives. The mitigation to be provided includes one of three measures: habitat restoration, habitat conservation, or in-lieu fee for habitat conservation.

The City has worked with CalFire, the San Elijo Lagoon Conservancy, CDFW, the County of San Diego and other relevant state and federal agencies to develop the *San Elijo Lagoon Ecological Reserve Vegetation Management Plan*. This Plan was adopted by the City and the County in January 2009 and is aimed at reducing wildfire risk in the City. Policies aimed at reducing wildfire risk in the City are included below.

B. Coastal Act Policies

Section 30235:
Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.

Section 30236:
Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (l) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

Section 30253:
New development shall do all of the following:

(a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

(b) 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.

(c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development.

(d) Minimize energy consumption and vehicle miles traveled.

(e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.

C. Land Use Plan Policies

1. General Development

Policy 4.1: The City of Solana Beach contains areas subject to natural hazards that present risks to life and property. These areas require additional development controls to minimize risks. Potential hazards in the City include, but are not be limited to, the following:

- Coastal Bluffs
- Slopes with low stability & and high landslide potential: Hillside areas that have the potential to slide, fail, or collapse.
- Seismic ground shaking: Shaking induced by seismic waves traveling through an area as a result of an earthquake on a regional geologic fault.
- Liquefaction: Areas where water-saturated artificial fill or sediment can potentially lose strength and fail during strong ground shaking.
- Flood prone areas most likely to flood during major storms.

- Wave action: The entire shoreline is subject to direct wave attack and damage from wave activity due to a lack of protective beach.
- Tsunami: Low lying shoreline areas subject to inundation by a sea wave generated by local or distant earthquake, submarine landslide, subsidence, or volcanic eruption.
- Fire hazard: Areas subject to major wildfires located in the City's WUI.

Policy 4.2: Minimize the exposure of new development to geologic, flood and fire hazards. The Hillside/Coastal Bluff Overlay (HOZ) policies) shall apply to all areas designated as within the HOZ on the City of Solana Beach LUP map (Exhibit 5-2) or where site-specific analysis indicates that the parcel contains slopes exceeding 25 percent grade.

Policy 4.3: Regulate development in hillside areas to preserve the natural topography and enhance scenic qualities of the City, protect native coastal vegetation, preserve existing watersheds, and reduce the potential for environmental hazards including soil erosion, siltation of coastal wetlands, landslides, adverse impacts due to runoff, and other impacts which may affect general safety and welfare.

Policy 4.4: Any projects that propose building within the HOZ, on bluff properties, or inland bluff projects must include a geologic reconnaissance report to determine the geologic stability of the area. When additional information is needed to assess stability, a preliminary engineering geology report must also be prepared identifying the results of subsurface investigation regarding the nature and magnitude of unstable conditions, as well as mitigation measures needed to reduce or avoid such conditions. (HOZ applies to areas with steep slopes greater than 25% as shown in Exhibit 5-2).

Policy 4.5: Development within flood prone areas subject to inundation or erosion shall be prohibited unless no alternative building site exists on the legal lot and proper mitigation measures are provided to minimize or eliminate risks to life and property from flood hazard. The City shall ensure that permitted development and fill in the 100-year floodplain will not result in an obstruction to flood control and that such development will not adversely affect coastal wetlands, riparian areas, or other sensitive habitat areas within the floodplain. (The Floodplain Overlay applies to areas within the 100-year floodplain as shown in Exhibit 4-6)

Policy 4.6: Permitted infill development in the 100-year floodplain shall be limited to structures capable of withstanding periodic flooding without requiring the construction of on or off-site flood protective works or channelization. Proposed development shall be required to incorporate the best mitigation measures feasible pursuant to Public Resources Code Section 30236.

Policy 4.7: New development shall provide adequate drainage and erosion control facilities that convey site drainage in a non-erosive manner in order to minimize hazards resulting from increased runoff, erosion, and other hydrologic impacts to streams.

Policy 4.8: Land divisions, including lot line adjustments, shall be prohibited unless all proposed parcels can be demonstrated to be safe from flooding, erosion, fire and geologic hazards and will provide a safe, legal, all-weather access road(s), which can be constructed consistent with all policies of the LCP.

Policy 4.9: Information should be provided to the public concerning hazards and appropriate means of minimizing the harmful effects of natural disasters upon persons and property relative to siting, design and construction.

Policy 4.10: On ancient landslides, unstable slopes, and other geologic hazard areas new development shall only be permitted where an adequate factor of safety can be provided.

Policy 4.11: Applications for new development for projects located within the HOZ, shall include a geologic/soils/geotechnical study that identifies any geologic hazards affecting the proposed project site, any necessary mitigation measures, and contains a statement that the project site is suitable for the proposed development and that the development will be safe from geologic hazard for the economic life of the structure. Such reports shall be signed by both a licensed Geotechnical Engineer and a certified engineering geologist, and be subject to review and approval by the City Public Works Director.

Policy 4.12: In the event that remediation or stabilization of landslides that affect existing structures or that threaten public health or safety is required multiple alternative remediation or stabilization techniques shall be analyzed to determine the least environmentally damaging alternative. Maximum feasible mitigation shall be incorporated into the project in order to minimize adverse impacts to resources and to preclude the need for future mitigation.

Policy 4.13: New development which does not conform to the provisions of the LCP shall be prohibited on property or in areas where such development would present an extraordinary risk to life and property due to an existing or demonstrated potential public health and safety hazard.

Non-Conforming Structures

Policy 4.14: Existing, lawfully established structures that are located between the sea and the first public road paralleling the sea (or lagoon) built prior to the adopted date of the LUP that do not conform to the provisions of the LCP shall be considered legal non-conforming structures. Such structures may be maintained and repaired, as long as the improvements do not increase the size or degree of non-conformity. ~~Minor~~ Aadditions and improvements to such structures that are not considered Bluff Top Redevelopment, as defined herein, may be permitted provided that such additions or improvements themselves comply with the current policies and standards of the LCP. Complete d~~D~~emolition and reconstruction or bluff top redevelopment is not permitted unless the

entire structure is brought into conformance with the policies and standards of the LCP. See also Policy 5.45 which addresses non-Bluff Properties.

2. Shoreline Development

Policy 4.15: Implement a City-wide, long-term comprehensive shoreline management strategy which includes, but is not limited to, the following:

- An examination of local and regional long-term erosion rates and trends in order to reflect and plan for shoreline changes.
- An examination of mean sea level elevation trends and future sea level rise projections in order to include these conditions in future erosion rates and to plan for potential shoreline changes.
- Standard plans defining the preferred bluff retention solutions that would be acceptable or preferable, and where appropriate, identification of the types of armoring that should be avoided for certain areas or beaches in order to minimize risks and impacts from armoring to public access and scenic resources along the shoreline and beach recreation areas.
- Standard feasibility analysis of alternatives as a required element of bluff retention device projects to ensure that mid and upper bluff retention devices are avoided to the extent feasible. The analysis should require, but not be limited to, the use of technical evaluations of the site (geotechnical reports, engineering geology reports, and wave run up reports etc.), an examination of all other options (partial relocation, removal of seaward portions of the structure, revised building footprint and foundation, sand replenishment, sand retention devices, or no action, etc.), and a conclusion that a bluff retention device would be the only feasible means for protecting the existing principal structure in danger from erosion. The analysis will take into consideration the age and size of the structure, the size of the lot, whether the existing principal structure was constructed prior to the Coastal Act, and previous permit actions on the site that require consideration of alternatives to shoreline and bluff protective devices.
- Standard conditions and monitoring requirements which include mechanisms to ensure shoreline protection effectiveness with provisions for the modification or removal of ineffective, obsolete or hazardous bluff retention devices.
- Conditions requiring removal of shoreline and bluff protective devices if no longer required to protect a principal residential structure.
- Procedures to address emergency conditions, such as: coordination with property owners; field inspections before and after storm seasons; guidance for types of preferred temporary emergency devices and a provision for their removal if a permit for a bluff retention device is not obtained.

Policy 4.16: Encourage SANDAG to maintain an inventory of available studies on local and regional coastal processes and beach resources for the purpose of advancing the SANDAG shoreline preservation strategies for the San Diego region. The City will consider participating in studies to fill information gaps on the regional effects of bluff

retention devices, on beach and bluff erosion, and methods to protect the shoreline, and counteract erosion.

Policy 4.17: New development shall be set back a safe distance from the bluff edge, with a reasonable margin of safety, to eliminate the need for bluff retention devices to protect the new improvements. All new development, including additions to existing structures, on bluff property shall be landward of the Geologic Setback Line (GSL) as set forth in Policy 4.25. This requirement shall apply to the principal structure and accessory or ancillary structures such as guesthouses, pools, tennis courts, cabanas, and septic systems, etc. Accessory structures such as decks, patios, and walkways, which are at-grade and do not require structural foundations may extend into the setback area no closer than five feet from the bluff edge. On lots with a legally established bluff retention device, the required geologic analysis shall describe the condition of the existing seawall; identify any impacts it may be having on public access and recreation, scenic views, sand supply and other coastal resources; and evaluate ~~opportunities~~ **options** to **mitigate any previously unmitigated impacts of the structure or** modify**,** ~~or~~ replace**, or remove** the existing protective device in a manner that would eliminate or reduce those impacts. **In addition, any significant alteration or improvement to the existing structure shall trigger such review (i.e. the analysis of the seawall) and any unavoidable impacts shall be mitigated.**

~~**Policy 4.18:** A legally permitted bluff retention device shall not be factored into setback calculations. Expansion and/or alteration of a legally permitted bluff retention device shall include a reassessment of the need for the shoreline protective device and any modifications warranted to the protective device to eliminate or reduce any adverse impacts it has on coastal resources or public access, including but not limited to, a condition for a reassessment and reauthorization of the modified device in 20 years.~~

Policy 4.18: A legally permitted bluff retention device shall not be factored into setback calculations. Expansion and/or alteration of a legally permitted bluff retention device shall include a reassessment of the need for the shoreline protective device and any modifications warranted to the protective device to eliminate or reduce any adverse impacts it has on coastal resources or public access, including but not limited to, a condition for a reassessment and reauthorization of the modified device pursuant to Policy 4.52.

Policy 4.18~~9~~: New shoreline or bluff protective devices that alter natural landforms along the bluffs or shoreline processes shall not be permitted to protect new development. A condition of the permit for all new development and blufftop redevelopment on bluff property shall require the property owner record a deed restriction against the property that expressly waives any future right that may exist pursuant to Section 30235 of the Coastal Act to new or additional bluff retention devices.

Policy 4.1920: Existing, legal non-conforming publicly-owned facilities that are coastal-dependent uses such as public access improvements and lifeguard facilities located within 40 feet of the edge of the bluff edge, may be maintained, repaired and/or replaced as determined necessary by the City. Any such repair or replacement of existing public facilities shall be designed and sited to avoid the need for shoreline protection to the extent feasible.

Policy 4.201: New accessory structures on bluff properties shall be constructed in a manner that allows easy relocation landward or removal should they become threatened by coastal erosion or bluff failure. The City shall also condition CDPs authorizing accessory structures with a requirement that the permittee (and all successors in interest) shall apply for a CDP to remove the accessory structure(s) if it is determined by a licensed Geotechnical Engineer that the accessory structure is in danger from erosion landslide or other form of bluff collapse.

Policy 4.212: No bluff retention device shall be allowed for the sole purpose of protecting an accessory structure.

Policy 4.223: Where setbacks and other development standards could preclude the construction of a home the City may consider options including but not limited to reduction of the two car onsite parking space requirement to a one car onsite parking requirement or construction within five feet of the public right of way front yard setback for all stories as long as adequate architectural relief (e.g., recessed windows or doorways or building articulation) is maintained as determined by the City. The City may also consider options including a caisson foundation with a minimum 40 foot bluff top setback to meet the stability requirement and avoid alteration of the natural landform along the bluffs. A condition of the permit for any such home shall expressly require waiver of any rights to new or additional buff retention devices which may exist and recording of said waiver on the title of the bluff property.

Policy 4.234: Where adherence to the LCP policies on geologic setbacks and other development standards would preclude construction of a new primary residence on a Bluff Top Property, even with reductions in the front yard setback and parking standards, the Bluff Top Ddevelopment project shall be reviewed as a site-specific LCP Amendment to allow the minimum development necessary to avoid a taking of private property for public use without just compensation.

Policy 4.25: All new bluff property development shall be set back from the bluff edge a sufficient distance to ensure that it will not be in danger from erosion and that it will ensure stability for its projected 75-economic life. To determine the GSL, applications for bluff property development must include a geotechnical report, from a licensed Geotechnical Engineer or a certified Engineering Geologist, that establishes the Geologic Setback Line (GSL) for the proposed development. This setback line shall establish the location on the bluff top stability where can be reasonably assured for the economic life of the development. Such assurance will take the form of a quantitative

slope analysis demonstrating a minimum factor of safety against sliding of 1.5 (static) or 1.2 (pseudostatic, k-0.15 or determined through analysis by the geotechnical engineer), using shear strength parameters derived from relatively undeformed samples collected at the site. In no case shall the setback be less than 40 feet from the bluff edge, and only if it can be demonstrated that the structure will remain stable, as defined above, at such a location for its 75-year economic life and has been sited safely without reliance on existing or future bluff retention devices, other than a caisson foundation.

Furthermore, all new development including, but not limited to principal structures, additions, and ancillary structures, shall be specifically designed and constructed such that it could be removed in the event of endangerment.

The predicted bluff retreat shall be evaluated considering not only historical bluff retreat data, but also acceleration of bluff retreat made possible by continued and accelerated sea level rise, future increase in storm or El Niño events, the presence of clean sands and their potential effect on the pattern of erosion at the site, an analysis of the ongoing process of retreat of the subject segment of the shoreline, and any known site-specific conditions. To the extent the MEIR or geology reports previously accepted by the City address the issues referenced above and remain current, technical information in the MEIR and previously accepted geology reports may be utilized by an applicant. Any such report must also consider the long-term effects of any sand replenishment and/or retention projects to the extent not addressed in the MEIR or the EIR for the specific application.

Policy 4.256: With respect to bluff properties only, the City will require the removal or capping of any permanent irrigation system within 100 feet of the bluff edge in connection with issuance of discretionary permits for new development, redevelopment, or shoreline protection, or bluff erosion, unless the bluff property owner demonstrates to the satisfaction of the Public Works Director, or the CCC if the project is appealed, that such irrigation has no material impact on bluff erosion (e.g., watering hanging plants over hardscape which drains to the street).

Policy 4.267: Require all bluff property landscaping for new development to consist of native, non-invasive, drought-tolerant, fire-resistant, and salt-tolerant species.

Policy 4.278: All storm water drain systems that currently drain or previously drained towards the west over the bluff shall be capped. These systems should be redesigned to drain directly, or through a sump system, and then pumped to the street in compliance with SWP 2007-0001 and consistent with SUSMP requirements. This policy shall be implemented as a condition of approval for all discretionary permits issued for bluff properties or within 5 years of adoption of the LCP, whichever is sooner.

Policy 4.289: A bluff home may continue its legal non-conforming status; however, a bluff top redevelopment shall constitute new development and cause the pre-existing non-conforming bluff home to be brought into conformity with the LCP. Entirely new bluff

homes shall also conform to the LCP.

Policy 4.2930: Limit buildings and structures on the sloped face and toe of the bluff to lifeguard towers, subsurface public utility drainage pipes or lines, bluff retention devices, public stairs and related public infrastructure which satisfy the criteria established in the LCP. No other permanent structures shall be permitted on a bluff face. Such structures shall be maintained so that they do not contribute to further erosion of the bluff face and are to be visually compatible with the surrounding area to the maximum extent feasible.

3. Shoreline Erosion and Protective Structures

Policy 4.301: Assess potential environmental effects associated with beach sand replenishment and sand retention projects as required under CEQA and NEPA.

Policy 4.312: When bluff retention devices are unavoidable, encourage applicants to pursue preferred bluff retention designs as depicted in Appendix 2 of the LUP when required to protect an existing principal structure in danger from erosion. All future bluff retention device applications should utilize these designs as the basis of site-specific engineering drawings to ensure consistency with the LUP.

Policy 4.323: The City Manager, through City Staff, shall be responsible for: (a) contracting for the construction, routine maintenance, and repair of approved publicly owned bluff retention devices, if any; (b) approving permits for maintenance and repair activities of all private bluff retention devices with the bluff property owners responsible for and paying for all costs thereof; (c) monitoring and enforcing permit conditions, LUP and implementing ordinances requirements, and mitigation requirements which include aesthetic treatments, and payment of mitigation fees or fee deposits; (d) overseeing annual inspections of all bluff retention devices and notifying bluff property owners (and/or any assessing entity) of work which must be completed by the bluff property owner to ensure compliance with the aesthetic, structural and safety criteria set forth in the implementing ordinances; (e) preparing and submitting an annual status report on LCP related matters to the City Council; and (f) contracting for and removing bluff publicly owned retention devices where such removal is warranted and is in conformance with the LCP.

Policy 4.334: Identify, evaluate and pursue all feasible potential sources of revenue for funding the City's shoreline management policies and programs as contained in the LUP. Fundamental fairness dictates that the costs of the LCP's programs be allocated and shared in proportion to the benefits realized by the affected parties, including the public, the City, and the bluff property owners, respectively. Potential sources of funding may include, without limitation:

- Regional Sediment Management and opportunistic sand funding sources.
- Use of monies held by SANDAG from previous CCC sand and recreation mitigation fees collected for bluff retention devices in the City.

- City assessed Sand Mitigation Fees, which may be expended for sand replenishment and retention projects.
- City fees directly related to actual costs incurred by the City shall be established for the processing and issuance of permits, the use of City facilities and staff, and reasonable third party costs.
- Government grants (e.g., Federal Land and Water Conservation Fund, Army Corps of Engineers, Coastal Conservancy, State Tidelands Oil Revenue Fund, Oceanside Harbor mitigation fund, State Parks Bond, Open Space Bond Act, Park Land Bond Act, etc.).
- Bond financing.
- Parking revenues, beach fees, etc.
- Two percent of the existing, and any dedicated increases in, the transient occupancy tax; sales tax; or other dedicated taxes.
- Environmental mitigation fees (paid by third parties such as Caltrans, port districts, utility companies, developers, etc.).
- Funds from other parties responsible for loss of sand on the beach (e.g., water districts, sand mining companies, Caltrans, Amtrak, NCTD and any/all other property owners in the watershed, etc.) utilizing assessment districts or other equitable funding mechanisms.

Policy 4.345: Establishment of an assessing entity, as subject to the approval of the majority of affected property owners, with such funds utilized solely to benefit those properties.

Policy 4.356: Ensure that rules governing any assessing entities, are established and bound based on applicable State laws, regulations and requirements associated with the specific assessing entity.

Policy 4.367: Establish a Shoreline ~~District~~ Account which will serve as the primary account where all funds generated pursuant to the Hazards & Shoreline/Bluff Development Chapter of the LUP will be held. The City should invest the Shoreline ~~District~~ Account funds prudently and expend them for purposes outlined in the LCP including, without limitation:

- Sand replenishment and retention studies and projects;
- Updating the October 2010 MHTL Survey;
- Preparation of other shoreline surveys and monitoring programs;
- Opportunistic beach nourishment programs and development of stockpile locations;
- Repair and maintenance of bluff retention devices subject to reimbursement by the affected non-compliant bluff property owners;
- Public recreation improvements;
- Repair and replacement of beach access infrastructure;
- Insurance premiums; and
- Shoreline related litigation.

~~Sand Mitigation Fees must be expended for sand replenishment and potentially retention. Recreation Fees must be expended for public access, and public recreation improvements.~~

The City may use the funds in the Shoreline Account, subject to the restrictions of any terms of the funding sources, to pay for projects such as beach sand replenishment and retention structures, public recreation and public beach access improvement projects, feasibility and impact studies, operating expenses, insurance, and litigation; and to pay to conduct surveys and monitoring programs.

~~**Policy 4.38:** As part of the LCP Local Implementation Plan (LIP), the City of Solana Beach will establish a two-tiered permit application process to distinguish between projects that may be processed administratively by the City and those requiring discretionary actions(s) by the City. Projects that cannot be considered minor and projects located within the "appealable zone" will require a public hearing and will be treated as discretionary actions.~~

Policy 4.37~~9~~: Maximize the natural, aesthetic appeal and scenic beauty of the beaches and bluffs by avoiding and minimizing the size of bluff retention devices, preserving the maximum amount of unaltered or natural bluff face, and minimizing encroachment of the bluff retention device on the beach, to the extent feasible, while ensuring that any such bluff retention device accomplishes its intended purpose of protecting existing principal structures in danger from erosion.

Policy 4.38~~40~~: Provide for reasonable and feasible mitigation for the impacts of all bluff retention devices which consists of the payment of Sand Mitigation Fees and Public Recreation Fees to the City or other assessing agency.

Policy 4.39~~41~~: Maintain adequate signage to warn the public of the dangers associated with bluff collapse to minimize public and private safety risks inherent in the ongoing existence of unprotected, and unstable natural bluffs.

~~**Policy 4.42:** Ensure the private and public interest in protecting and preserving private property rights under the state and federal Constitutions, the Coastal Act, and local ordinances, such that regulations are not overreaching and no private owner is denied reasonable use of his, her or its bluff property. In accordance with Public Resources Code Section 30010, this Policy is not intended to increase or decrease the rights of any owner of property under the Constitution of the State of California or the United States.~~

Policy 4.40~~3~~: Ensure that each bluff property owner is able to enjoy reasonable use of his/her or its property as required by law, and where setbacks cause reasonable use to be difficult to achieve, acquisition of the bluff property by the City should be encouraged, if feasible.

Policy 4.414: The City, and in cases of original jurisdiction the CCC, shall regulate every bluff retention device including initial approval, construction, maintenance and repair activities for the life of the device.

Policy 4.425: Allow reasonable use of City property by a bluff property owner during the construction of a bluff retention device. For example, the City could allow use of City parking lots (with the exception of the Fletcher Cove parking lot) or other appropriate properties for staging areas and reasonable access to City ramps and the beach if reasonable impacts to public access and recreation can be avoided or minimized so as to have little material impact. However, except in emergency situations, no work on the beach shall occur on weekends, holidays or between Memorial Day weekend and Labor Day. In no case shall equipment be stored on the sandy beach overnight. The Fletcher Cove Park access ramp and all public parking spaces within Fletcher Cove shall remain open and available to public use during construction. Access corridors shall be located in a manner that has the least impact on public access to and along the shoreline.

Policy 4.436: Acknowledge the importance of balancing the rights of private property owners with minimizing, and potentially eliminating, the need for future bluff retention devices by the provision of alternate forms of protection such as a wide sandy beach, thereby reducing the impacts of such devices and achieving a more natural and attractive beach and bluff compared to what exists now.

Policy 4.447: The City has adopted preferred bluff retention solutions (see Appendix B) to streamline and expedite the City permit process for bluff retention devices. The preferred bluff retention solutions are designed to meet the following goals and objectives:

1. Locate bluff retention devices as far landward as feasible;
2. Minimize alteration of the bluff face;
3. Minimize visual impacts from public viewing areas; ,
4. Minimize impacts to adjacent properties including public bluffs and beach area; and,
5. Conduct annual visual inspection and maintenance as needed.

The bluff property owner's licensed Civil or Geotechnical Engineer must examine the device for use in the specific location and take responsibility for the design as the Engineer of Record.

The Bluff Property Owner shall arrange for and pay the costs of:

1. The licensed Geotechnical or Civil Engineer;
2. The bluff retention device;
3. A bond to ensure completion of the bluff retention device;
4. Appropriate mitigation; and
5. All necessary repairs, maintenance, and if needed removal.

Applicants who seek permits to install a preferred bluff retention solution can do so on a streamlined basis, relying on previously approved standards and designs, and shall receive expedited processing from the City. As technology develops, the City will consider other preferred bluff retention solutions that meet the goals and policies of the LCP, as an amendment to the LUP or within the LIP.

Applications for coastal development permits for all bluff retention devices where any portion of which will be sited seaward of the MHTL, shall be submitted first to the City for approval of a major use permit and then to the CCC for a coastal development permit. The CCC has original jurisdiction for the portion of the bluff retention device that will be sited seaward of the MHTL. Such developments shall be subject to this LCP for the portions within the City's jurisdiction. Chapter 3 of the Coastal Act will be the standard of review for the portion within the CCC's jurisdiction. For beachfront development that will be subject to wave action periodically, unless the State Lands Commission determines that there is no evidence that the proposed development will encroach on tidelands or other public trust interests, the City shall reject the application on the grounds that it is within the original permit jurisdiction of the CCC and shall direct the applicant to file his or her application with the CCC.

Policy 4.458: The City shall allow applicants proposing to install something other than a preferred bluff retention solution to apply for such an alternate design, but said applicants will not be eligible for the expedited processing and other benefits associated with preferred bluff retention solutions. Such non-standard designs shall, in most instances, undergo a more complete CEQA review as applicable, and would not enjoy the imprimatur of pre-approval associated with a preferred bluff retention solution.

Policy 4.469: All proposed development on a beach or along the shoreline, including a shoreline protection structure located within the jurisdiction of the State Lands Commission: (1) must be reviewed and evaluated in writing by the State Lands Commission and (2) may not be permitted if the State Lands Commission determines that the proposed development is located on public tidelands or would adversely impact tidelands unless State Lands Commission approval is given in writing.

Policy 4.4750: A Seacave/Notch Infill shall be approved only if all the findings set forth below can be made and the stated criteria satisfied. ~~**The permit shall be valid for a period of 20 years commencing with the** date of CDP approval~~ **building permit completion certification date** ~~**and subject to an encroachment removal agreement approved by the City.**~~

A. Based upon the advice and recommendation of a licensed Geotechnical or Civil Engineer, the City makes the findings set forth below:

   1. The Seacave/Notch Infill is more likely than not to delay the need for a larger coastal structure or upper bluff retention structure, that would, in the foreseeable future, be necessary to protect and existing principal structure,

City facility, and/or City infrastructure, from danger of erosion. Taking into consideration any applicable conditions of previous permit approvals for development at the site, a determination must be made based on a detailed alternatives analysis that none of the following alternatives to the coastal structure are currently feasible, including:

- Controls of surface water and site drainage;
- A smaller coastal structure; or
- Other non-beach and bluff face stabilizing measures, taking into account impacts on the near and long term integrity and appearance of the natural bluff face, and contiguous bluff properties; and,

2. The bluff property owner did not create the necessity for the Seacave/Notch Infill by unreasonably failing to implement generally accepted erosion and drainage control measures, such as reasonable management of surface drainage, plantings and irrigation, or by otherwise unreasonably acting or failing to act with respect to the bluff property. In determining whether or not the bluff property owner's actions were "reasonable," the City shall take into account whether or not the bluff property owner acted intentionally, with or without knowledge, and shall consider all other relevant credible scientific evidence as well as relevant facts and circumstances.

3. The location, size, design and operational characteristics of the proposed seacave/notch infill will not create a significant adverse effect on adjacent public or private property, natural resources, or public use of, or access to, the beach, beyond the environmental impact typically associated with a similar bluff retention device and the seacave/notch infill is the minimum size necessary to protect the principal structure, has been designed to minimize all environmental impacts, and provides mitigation for all coastal and environmental impacts as provided for in this LCP.

B. The Seacave/Notch Infill shall be designed and constructed:

1. To avoid migration of the Seacave/Notch Infill onto the beach;

2. To be re-contoured to the face of the bluff, as needed, on a routine basis, through a CDP or exemption, to ensure the seacave/notch infill conforms to the face of the adjoining natural bluff over time, and continues to meet all relevant aesthetic, and structural criteria established by the City;

3. To serve its primary purpose which is to delay the need for a larger coastal structure, and designed to be removable, to the extent feasible, provided all other requirements under the LCP are satisfied; and,

4. To satisfy all other relevant LCP and City Design Standards, set forth for ~~**coastal structures**~~ **bluff retention devices**.

~~C. The Bluff Property Owner shall arrange for and pay the costs of:~~

~~1. The licensed Geotechnical or Civil Engineer; and~~

~~2. The Seacave/Notch Infill~~

~~3. Appropriate mitigation~~

~~4.~~1. ~~All necessary repairs, maintenance, and if needed removal.~~

C. ~~D. **Only to the extent the City finds that the Seacave/Notch Infill encroaches on the public beach or upon the bluff face such that coastal resources are adversely impacted, then the City shall impose a Sand Mitigation Fee upon the bluff property owner.**~~

Policy 4.~~4851:~~ Coastal structures shall be approved by the City only if all the following applicable findings can be made and the stated criteria satisfied. The permit shall be valid **until the currently existing structure requiring protection is redeveloped (per definition of Bluff Top Redevelopment in the LUP), is no longer present, or no longer requires a protective device, whichever occurs first** ~~**for a period of 20 years commencing with the building permit completion certification date** date of CDP approval~~ and subject to an encroachment~~/~~removal agreement approved by the City.

A. Based upon the advice and recommendation of a licensed Geotechnical or Civil Engineer, the City makes the findings set forth below.

1. A bluff failure is imminent that would threaten a bluff home, city facility, city infrastructure, and/or other principal structure.

2. The coastal structure is more likely than not to preclude the need for a larger coastal structure or upper bluff retention structure. Taking into consideration any applicable conditions of previous permit approvals for development at the subject site, a determination must be made based on a detailed alternatives analysis that none of the following alternatives to the coastal structure are currently feasible, including:

   - A Seacave/Notch Infill;
   - A smaller coastal structure; or
   - Other remedial measures capable of protecting the bluff home, city facility, non-city-owned utilities, and/or city infrastructure, which might include or other non-beach and bluff face stabilizing measures, taking into account impacts on the near and long term integrity and appearance of the natural bluff face, and contiguous bluff properties;

3. The bluff property owner did not create the necessity for the coastal structure by unreasonably failing to implement generally accepted erosion and drainage control measures, such as reasonable management of surface drainage, plantings and irrigation, or by otherwise unreasonably acting or

failing to act with respect to the bluff property. In determining whether or not the bluff property owner's actions were reasonable, the City shall take into account whether or not the bluff property owner acted intentionally, with or without knowledge, and shall consider all other relevant credible scientific evidence, as well as, relevant facts and circumstances.

4. The location, size, design and operational characteristics of the proposed coastal structure will not create a significant adverse effect on adjacent public or private property, natural resources, or public use of, or access to, the beach, beyond the environmental impact typically associated with a similar coastal structure and the coastal structure is the minimum size necessary to protect the principal structure, has been designed to minimize all environmental impacts, and provides mitigation for all coastal and environmental impacts, as provided for in this LCP.

B. The coastal structure shall meet City Design Standards, which shall include the following criteria to ensure the coastal structure will be:

1. Constructed to resemble as closely as possible the natural color, texture and form of the adjacent bluffs;

2. Landscaped, contoured, maintained and repaired to blend in with the existing environment;

3. Designed so that it will serve its primary purpose of protecting the bluff home or other principal structure, provided all other requirements under the implementing ordinances are satisfied, with minimal adverse impacts to the bluff face;

4. Reduced in size and scope, to the extent feasible, without adversely impacting the applicant's bluff property and other properties; and

5. Placed at the most feasible landward location considering the importance of preserving the maximum amount of natural bluff and ensuring adequate bluff stability to protect the bluff home, City facility, or City infrastructure.

C. Mitigation for the impacts to shoreline sand supply, public access and recreation and any other relevant coastal resource impacted by the coastal structure is required and shall be assessed in 20-year increments, starting with the building permit completion certification date. Property owners shall apply for a CDP amendment prior to expiration of each 20-year mitigation period, proposing mitigation for coastal resource impacts associated with retention of the coastal structure beyond the preceding 20-year mitigation period and shall include consideration of alternative feasible measures in which the permittee can modify the coastal structure to lessen the coastal

structure's impacts on coastal resources. Monitoring reports to the City and the Coastal Commission shall be required every five years from the date of CDP issuance until CDP expiration, which evaluate whether or not the coastal structure is still required to protect the existing structure it was designed to protect. The permittee is required to submit a CDP application to remove the authorized coastal structure within six months of a determination that the coastal structure is no longer required to protect the existing structure it was designed to protect.

Policy 4.4952: The bluff property owner shall pay for the cost of the coastal structure or Infill and pay a Sand Mitigation Fee and a Public Recreation Fee per LUP Policy 4.3840. These mitigation fees are not intended to be duplicative with fees assessed by other agencies. It is anticipated the fees assessed as required by this LCP will be in conjunction with, and not duplicative ~~with~~ of, the mitigation fees typically assessed by the CCC and the CSLC for impacts to coastal resources from shoreline protective devices.

Sand Mitigation Fee - to mitigate for actual loss of beach quality sand which would otherwise have been deposited on the beach. For all development involving the construction of a bluff retention device, a Sand Mitigation Fee shall be collected by the City which shall be used for beach sand replenishment and/or retention purposes. The mitigation fee shall be deposited in an interest-bearing account designated by the City Manager of Solana Beach in lieu of providing sand to replace the sand that would be lost due to the impacts of any proposed protective structure. The methodology used to determine the appropriate mitigation fee has been approved by the CCC and is contained in LUP Appendix A. The funds shall solely be used to implement projects which provide sand to the City's beaches, not to fund other public operations, maintenance, or planning studies.

Sand Mitigation Fees must be expended for sand replenishment and potentially for retention projects as a first priority and may be expended for public access and public recreation improvements as secondary priorities where an analysis done by the City determines that there are no near-term, priority sand replenishment Capital Improvement Projects (CIP) identified by the City where the money could be allocated. The Sand Mitigation funds shall be released for secondary priorities only upon written approval of an appropriate project by the City Council and the Executive Director of the Coastal Commission.

Public Recreation Fee – Similar to the methodology established by the CCC for the sand mitigation fee, the City and the CCC are jointly developing a methodology for calculating a statewide public recreation fee. To assist in the effort, the City has shared the results of their draft study with the CCC to support their development of a uniform statewide Public Recreation / Land Lease Fee. Until such time as an approved

methodology for determining this fee has been established, and the methodology and payment program has been incorporated into the LCP through an LCP amendment, the City will collect a $1,000 per linear foot interim fee deposit. In the interim period, CCC will evaluate each project on a site-specific basis to determine impacts to public access and recreation, and additional mitigation may be required. The City shall complete its public recreation/land lease fee study within 18 months of effective certification of the LUP.

Project applicants have the option of proposing a public recreation/access project in lieu of payment of Public Recreation Fees (or interim deposits) to the City. At the City's discretion, these projects may be accepted if it can be demonstrated that they would provide a directly-related recreation and/or access benefit to the general public.

Public Recreation Fees must be expended for public access and public recreation improvements as a first priority and for sand replenishment and retention as secondary priorities where an analysis done by the City determines that there are no near-term, priority public recreation or public access CIP identified by the City where the money could be allocated. The Public Recreation funds shall be released for secondary priorities only upon written approval of an appropriate project by the City Council and the Executive Director of the Coastal Commission.

Policy 4.503: The erosion rate, being critical to the fair and accurate calculation of the Sand Mitigation Fee shall be reviewed, after notice and public hearing, at least every ten years, and more often if warranted by physical circumstances, such as major weather events, or large-scale sand replenishment projects and possible changes in coastal dynamics due to, among others, climate change, and future changes in sea level. If warranted, the erosion rate should be adjusted by the City with input from a licensed Civil or Geotechnical Engineer based upon data that accurately reflects a change in the rate of erosion of the bluff. Any such change shall be subject to the public hearing and a vote of the City Council.

Policy 4.514: An upper bluff system shall be approved only if all the following applicable findings can be made and the stated criteria will be satisfied. The permit shall be valid **until the currently existing structure requiring protection is redeveloped (per definition of Bluff Top Redevelopment in the LUP), is no longer present, or no longer requires a protective device, whichever occurs first** ~~for a period of 20 years commencing with the building permit completion certification date~~ ~~date of CDP approval~~ and subject to an encroachment**/removal** agreement approved by the City.

A. Based on the advice and recommendation of a licensed Geotechnical or Civil Engineer, the City makes the findings set forth below.

1. A bluff failure is imminent that would threaten a bluff home, city facility, city infrastructure, and/or other principal structure in danger from erosion. ~~and, that~~

2. The bluff home, city facility, city infrastructure, and/or principal structure is more likely than not to be in danger within one year after the date an application is made to the City.

Taking into consideration any applicable conditions of previous permit approval for development at the subject site, determination must be made based on a detailed alternatives analysis that none of the following alternatives to the upper bluff system are then currently feasible, including:

- No upper bluff system;
- Vegetation;
- Controls of surface water and site drainage;
- A revised building footprint and foundation system (e.g., caissons) with a setback that avoids future exposure and alteration of the natural landform;
- A smaller upper bluff system;
- Other remedial measures capable of protecting the bluff home, city facility, non-city-owned utilities, and/or city infrastructure which might include tie-backs, other feasible non-beach and bluff face stabilizing measures, taking into account impacts on the near and long term integrity and appearance of the natural bluff face, the public beach, and, contiguous bluff properties; ~~and,~~ or
- Removal and relocation of all, or portions, of the affected bluff home, city facilities or city infrastructure.

3. The bluff property owner did not create the necessity for the upper bluff system by unreasonably failing to implement generally accepted erosion and drainage control measures, such as reasonable management of surface drainage, plantings and irrigation, or by otherwise unreasonably acting or failing to act with respect to the bluff property. In determining whether or not the bluff property owner's actions were reasonable, the City shall take into account whether or not the bluff property owner acted intentionally, with or without knowledge, and shall consider all other relevant credible scientific evidence as well as relevant facts and circumstances.

4. The location, size, design and operational characteristics of the proposed upper bluff system will not create a significant adverse effect on adjacent public or private property, natural resources, or public use of, or access to, the beach, beyond the environmental impact typically associated with a similar upper bluff system and the upper bluff system is the minimize size necessary to protect the existing principal structure, has been designed to minimize all environmental impacts, and provides mitigation for all coastal and environmental impacts, as provided for in this LCP.

B. The upper bluff system shall meet City Design Standards applicable to bluff retention devices, including ensuring the natural bluff face is preserved to the greatest extent feasible, by using soft systems such as Geogrid, Geoweb,

and planted with native species. The upper bluff system shall be designed to minimize alterations of natural landforms and shall not have a material adverse visual impact. The upper bluff slope shall be designed to have both vertical and horizontal relief.

C. All upper bluff systems shall be subject to the same permitting time frames as specified for a coastal structure, and may be subject to removal based upon the same time frames and similar criteria set forth for removal of coastal structures, as reasonably determined by the City.

D. Mitigation for the impacts to shoreline sand supply, public access and recreation and any other relevant coastal resource impacted by the upper bluff system is required and shall be assessed in 20-year increments, starting with the building permit completion certification date. Property owners shall apply for a CDP amendment prior to expiration of each 20-year mitigation period, proposing mitigation for coastal resource impacts associated with retention of the upper bluff system beyond the preceding 20-year mitigation period and shall include consideration of alternative feasible measures in which the permittee can modify the upper bluff system to lessen the upper bluff system's impacts on coastal resources. Monitoring reports to the City and the Coastal Commission shall be required every five years from the date of CDP issuance until CDP expiration, which evaluate whether or not the upper bluff system is still required to protect the existing structure it was designed to protect. The permittee is required to submit a CDP application to remove the authorized upper bluff system within six months of a determination that the upper bluff system is no longer required to protect the existing structure it was designed to protect.

Policy 4.525: All permits for bluff retention devices shall expire ~~**20 years after** approval of the CDP,~~ ~~**the building permit completion certification date,**~~ **when the currently existing blufftop structure requiring protection is redeveloped (per definition of Bluff Top Redevelopment in the LUP), is no longer present, or no longer requires a protective device, whichever occurs first** and a new CDP must be obtained. Prior to expiration of the permit, the bluff top property owner shall apply for a coastal development permit to remove, modify or retain the protective device. In addition, expansion and/or alteration of a legally permitted existing bluff retention device shall require a new CDP **and be subject to the requirements of this policy.**

The CDP application shall include a re-assessment of need for the device, the need for any repair or maintenance of the device, and the potential for removal based on changed conditions. The CDP application shall ~~evaluate~~ include an evaluation of:

- ~~the~~The age, condition and economic life of the existing principal structure;
- changed geologic site conditions **including but not limited to, changes relative to sea level rise,** ~~**including**~~ implementation of ~~**the City's long-term USACE beachnourishment program or similar**~~ **a** long-term, large scale sand replenishment or shoreline restoration program; and
- any impact to **coastal resources, including but not limited to** public access and recreation.

~~relative to sea level rise and the age, condition, and economic life of principal structure including whether it was an existing structure on January 1, 1977 (prior to implementation of the Coastal Act). Prior to expiration of the permit, the bluff top property owner shall apply for a coastal development permit to either remove or retain the protective device.~~ The CDP shall include a condition **requiring** ~~**of**~~ reassessment ~~**and reauthorization**~~ **of the impacts** of the device in 20-year**s mitigation periods pursuant to Policies 4.48 and 4.51**.

No permit shall be issued for retention of a bluff retention device unless the City finds that the bluff retention device is still required to protect an existing principal structure **in danger from erosion**, that it will minimize ~~avoid~~ further alteration of the natural landform of the bluff, and that adequate mitigation for **coastal resource** impacts**, including but not limited to impacts** to the public beach has been provided.

Policy 4.536: Any bluff retention device shall be reasonably maintained and repaired by the bluff property owner on an "as needed" basis, at the bluff property owner's expense, in accordance with the implementing ordinances and any permit issued by the City. Any authorized assessing entity in which the project lies shall ensure such payments are reimbursed to the City if the bluff property owner fails to perform such work and the City elects to do so, subject to mandatory reimbursement. However, in all cases, after inspection, it is apparent that repair and maintenance is necessary, including maintenance of the color of the structures to ensure a continued match with the surrounding native bluffs, the bluff property owner or assessing entity shall contact the City or CCC office to determine whether permits are necessary, and, if necessary, shall subsequently apply for a coastal development permit for the required maintenance.

Policy 4.5~~47~~: To achieve a well maintained, aesthetically pleasing, and safer shoreline, coordination among property owners regarding maintenance and repair of all bluff retention devices is strongly encouraged. This may also result in cost savings through the realization of economies of scale to achieve these goals by coordination through an assessing entity. All bluff retention devices existing as of the date of certification of the LCP, to the extent they do not conform to the requirements of the LCP, shall be deemed

non-conforming. A bluff property owner may elect to conform his/her/its bluff property or bluff retention device to the LCP at any time if the City finds that an existing bluff retention device that is required to protect existing principal structures in danger from erosion is structurally unsound, is unsafe, or is materially jeopardizing contiguous private or public principal structures for which there is no other adequate and feasible solution, then the City may require reconstruction of the bluff retention device.

Policy 4.558: A program should be developed in conjunction with state and federal agencies, to provide incentives to relocate existing development out of hazardous areas and to acquire bluff properties that have been damaged by storm activities, where relocation of development to a safer location on the site is not feasible and additional protection measures are not feasible.

Policy 4.569: Siting and design of new shoreline development and bluff retention devices shall take into account predicted future changes in sea level. In particular, an acceleration of the historic rate of sea level rise shall be considered and based upon up-to-date scientific papers and studies, agency guidance (such as the 2010 Sea Level Guidance from the California Ocean Protection Council), and reports by national and international groups such as the National Research Council and the Intergovernmental Panel on Climate Change. Consistent with all provisions of the LCP, new structures shall be set back a sufficient distance landward to eliminate or minimize, to the maximum extent feasible, hazards associated with anticipated sea level rise over the expected economic life of the structure.

Policy 4.5760: Development on the bluffs, including the construction of a bluff retention device, shall include measures to ensure that:

- No stockpiling of dirt or construction materials shall occur on the beach;
- All grading shall be properly covered and sandbags and/or ditches shall be used to prevent runoff and siltation;
- Measures to control erosion shall be implemented at the end of each day's work;
- No machinery shall be allowed in the intertidal zone at any time to the extent feasible;
- All construction debris shall be properly collected and removed from the beach. Shotcrete/concrete shall be contained through the use of tarps or similar barriers that completely enclose the application area and that prevent shotcrete/concrete contact with beach sands and/or coastal waters.

Policy 4.5861: All new swimming pools and in-ground spas on bluff property shall contain double wall construction with drains and leak detection systems. All new swimming pools and in-ground spas shall be located landward of the geologic setback line.

Policy 4.5962: Existing bluff retention devices which are not considered preferred bluff retention solutions and do not conform to the provisions of the LCP, including the

structural or aesthetic requirements may be repaired and maintained to the extent that such repairs and/or maintenance conform to the provisions of the LCP.

4. Beach Sand Replenishment and Retention

Policy 4.603: Establish a wide, safe, sand beach to: (a) maintain, and when feasible, provide increased public access and recreational opportunities; (b) minimize impacts on sensitive marine resources; (c) protect water quality; (d) mitigate adverse impacts of bluff retention devices.

Policy 4.614: Continue to coordinate with SANDAG, the USACE, the State Lands Commission, California Department of Boating and Waterways, and others to establish and fund programs for periodic sand nourishment of beaches which are vulnerable to wave damage and erosion. Beach nourishment programs should include measures to minimize potential adverse biological resource impacts from deposition of material, including measures such as timing or seasonal restrictions and identification of environmentally preferred locations for deposits. Any program for beach sand nourishment shall not be effective until certified as an amendment to the LCP by the CCC or permitted as an independent project subject to a CDP.

Policy 4.625: Subject to coastal development permit requirements, the beneficial reuse and placement of sediments removed from erosion control or flood control facilities at appropriate points along the shoreline may be permitted for the purpose of beach nourishment. Any beach nourishment program for sediment deposition shall be designed to minimize adverse impacts to beach, intertidal and offshore resources, shall incorporate appropriate mitigation measures, and shall consider the method, location, and timing of placement. Sediment removed from catchment basins may be disposed of in the littoral system if it is tested and found to be of suitable grain size and type and a coastal development permit for such disposal has been obtained. The program shall identify and designate appropriate beaches or offshore feeder sites in the littoral system for placement of suitable materials from catchment basins.

Policy 4.636: Implement a series of projects implemented within the regulatory and permitting framework of the SCOUP program to provide data for planning of a long-term beach replenishment and retention program. This series of SCOUP projects may be used to determine the quantity and quality of sand needed to effectively widen the beach without being detrimental to offshore biological resources. Quantities of sand in the pilot projects and the specific sand placement locations will be determined based on the assessment of opportunities and constraints within the City.

Policy 4.647: Pursue a demonstration/temporary pilot project for a sand retention device such as a submerged, or emergent reef, groin field, or short T-head groin or other structure if approved through the coastal development permit and/or Federal consistency review by the CCC. The environmental, recreational, and aesthetic effects of any sand retention structure will be considered in its planning and design in

compliance with CEQA and NEPA. The City will also consider any implementation of sand replenishment and retention structures in a regional context and in cooperation with other cities' beach sand retention efforts.

Policy 4.658: Monitor SCOUP projects according to their regulatory permit requirements by using standardized aerial photography, LIDAR, and/or other appropriate technologies as they become available and accepted for use in monitoring beach conditions, examining several beach profiles and the condition of the beach sand retention structures, sediment sampling, and evaluation of effects on the beach and near shore ecology. Any such SCOUP project will also be monitored for recreational resource impacts, turbidity, sediment compatibility, traffic, and hazardous materials. These data will be analyzed to identify the effectiveness of any such sand replenishment and retention efforts at the end of the SCOUP program. The level of effect on sensitive biological resources (e.g., surfgrass, threatened or endangered species) and other effects on high quality hard bottom reefs will be quantified, and rates, and patterns of sand loss, and deposition will be determined. If feasible, changes in beach user patterns will also be identified and reported.

Policy 4.669: Develop a long-term beach replenishment program based on data and analysis from the Regional Beach Sand Project (RBSP) and SCOUP programs. Longer-term projects will be implemented at regular intervals in the future as determined by sand loss rates or as needed after severe storm seasons. Planning and budgeting will be established to carry out the program to a pre-determined date. The City should take into account climate change research and projections of future sea level rise using the most relevant, valid, and peer-reviewed data sets relative to long term planning assumptions to ensure regional planning consistency. The most relevant research into design and maintenance plans for the long-term beach sand replenishment and retention program should also be considered. The effectiveness of any such program will be reassessed after a specified period, but at least every five years, to identify any needed modifications.

Policy 4.6770: Participate in and encourage other long-term beach sand replenishment and retention programs at the federal, state, and regional level.

Policy 4.6871: Install or maintain a sand retention structure or structures based on analysis of the performance of any temporary structures. The design of a long-term structure or structures will be based on the monitoring results of the pilot project and of projects at other locations. The environmental and aesthetic effects of any long-term structure will be fully taken into account in its planning, design, and implementation.

~~**Policy 4.72:** Use the funds in the Shoreline District Account to pay for projects such as beach sand replenishment and retention structures, including feasibility and impact studies, operating expenses, insurance, litigation; and to pay to conduct surveys and monitoring programs. Sand Mitigation Fees may only be expended for sand~~

~~replenishment and potentially retention projects, and Land Lease/Recreation Fees may be expended for public access and public recreation improvements.~~

Policy 4.69~~73~~: Inform applicants, for new development in the City and in surrounding areas that do not have permitted SCOUP programs, of the City's SCOUP program and encouraged them to participate. Development on upland sites that will result in 5,000 cubic yards, or more, of export should be required to test the material for suitability for beach deposition. If suitable, the material should be placed on the beach via the SCOUP program.

5. Fire Hazard Management in the Wildland Urban Interface

Policy 4.704: All new development in the WUI or adjacent to ESHA shall be sited and designed to minimize required fuel modification to the maximum extent feasible in order to avoid environmentally sensitive habitat disturbance or destruction, removal or modification of natural vegetation, while providing for fire safety

Policy 4.71~~5~~: All discretionary permit applications for projects shall be reviewed by the City's Fire Marshal to determine if any thinning or clearing of native vegetation is required to determine if any thinning or clearing of native vegetation is required. The Fire Marshal may reduce the 100' fuel management requirement for existing development, when equivalent methods of wildfire risk abatement are included in project design.

Policy 4.72~~6~~: Equivalent methods of fire risk reduction shall be determined on a case-by-case basis by the Fire Marshal and may include the following, or a combination of the following, but are not limited to:

- Compliance with Building Code and Fire Code requirements for projects located in the WUI (State Fire Code Chapter 7A);
- Installation of a masonry or other non-combustible fire resistant wall up to six feet in height;
- Exterior sprinklers to be used in an emergency for fire suppression;
- Boxed eaves;
- Reduced landscaping that is compliant with the County of San Diego fire hazard risk reduction plant list and planting guidelines;
- Other alternative construction to avoid the need for vegetation thinning, pruning or vegetation removal.

Policy 4.73~~7~~: Within the WUI (Exhibit 4-7), the area within 100 feet of a habitable structure is divided into two zones as follows. Zone 1 is located from 0 - 30 feet from the residence and Zone 2 located from 30-100 feet from the residence.

Policy 4.748: Required fuel modification that may take place in both zones is defined as follows: In Zone 1, thin, prune or remove and replace vegetation and in Zone 2 thinning

of non-natives and removal of dead vegetation. Vegetation shall be thinned to a height of 18 inches. Root systems and stumps will be left in place to minimize soil disturbance and soil erosion. All fuel modification work will be done by hand crews only.

Policy 4.759: The City Fire Marshal retains the discretion to reduce or expand the fire zones on a case-by-case basis, with specific findings due to factors that may include, but are not limited to: building material, topography, vegetation load, and type.

Policy 4.7680: Fuel Modification Requirements for Existing Development - The City shall encourage property owners to implement fire risk reduction alternatives, including those listed in Policy 4.726 as a priority over fuel modification in ESHA. However, the City Fire Marshal may require fuel modification to occur adjacent to existing development as outlined in the established zones. If fuel modification is required by the Fire Marshal for existing development that would encroach into ESHA, the alternative that has the least impact on ESHA shall be implemented where feasible.

Policy 4.7781: Fuel Modification Requirements for Additions to Existing Structures – Where a new addition would encroach closer than 100 feet to an ESHA, the City Fire Marshal shall review the project for fuel modification requirements. If a 100 foot fuel modification zone would encroach into ESHA, the additions shall not be permitted unless the addition would not encroach any closer to ESHA than existing principal structures on either side of the development.

Policy 4.7882: Fuel Modification Requirements for New Development – New development, including but not limited to subdivisions and lot line adjustments shall be sited and designed so that no brush management or the 100 ft. fuel modification encroaches into ESHA.

Policy 4.7983: For purposes of this section, "encroachment" shall constitute any activity which involves grading, construction, placement of structures or materials, paving, removal of native vegetation including clear-cutting for brush management purposes, or other operations which would render the area incapable of supporting native vegetation or being used as wildlife habitat, including thinning as required in Zone 2. Modification from Policy 4.7882 may be made upon the finding that strict application of this policy would result in a taking of private property for public purposes without just compensation.

Policy 4.804: If fuel modification is required by the Fire Marshal, a fuel modification plan will be required to be submitted to the City as part of the application for any development located in WUI Fire Hazard Severity Zones (Exhibit 4-7). Applications shall include a site plan describing and quantifying the potential thinning, pruning or removal of brush, if any, that would be required to provide fire safety for the project or would be needed to accommodate any/all project elements.

Policy 4.815: All discretionary permit applications for projects in the City's WUI shall be required to include landscape plan that has been prepared in accordance with the County of San Diego "Suggested Plant List for a Defensible Space" http://www.sdcounty.ca.gov/dplu/docs/SuggestedPlants.pdf and planting guidelines emphasizing the use of fire-resistant, native, non-invasive, drought-tolerant and salt-tolerant species. These plants grow close to the ground, have a low sap or resin content, grow without accumulating dead branches, needles or leaves, are easily maintained and pruned. Any new vegetation planted must meet Planning Department guidelines.

Policy 4.826: Any required thinning of flammable vegetation in the WUI shall be conducted by hand crews between September 15 through February 15. To minimize impacts to habitat, sensitive plant spcies will not be thinned or removed. Sensitive species such as Quercus Dumosa (Coastal Scrub Oak), Ceanothus Verrucosus (Coastal White Lilac), Arcto staphylos Glandulosa (Del Mar Manzanita) and Corethrogyne Filaginifolia var. Linifolia (Del Mar Sand-Aster) will not be thinned or disturbed in any way.

6. Emergency Actions and Response

Policy 4.837: The City Manager or his/her designee may grant an emergency permit, which shall include an expiration date of no more than one year and the necessity for a subsequent regular CDP application, if the City Manager or his/her designee finds that:

(1) An emergency exists that requires action more quickly than permitted by the procedures for a CDP and the work can and will be completed within thirty (30) days unless otherwise specified by the terms of the permit.

(2) Public comment on the proposed emergency action has been reviewed, if time allows.

(3) The work proposed would be consistent with the requirements of the certified LCP.

(4) The emergency action is the minimum needed to address the emergency and shall, to the maximum extent feasible, be the least environmentally damaging temporary alternative.

Policy 4.848: An emergency permit shall be valid for 60 days from the date of issuance unless otherwise specified by the City Manager or his/her designee, but in no case more than one year. Prior to expiration of the emergency permit, if required, the permittee must submit a regular, CDP application for the development even if only to remove the development undertaken pursuant to the emergency permit and restore the site to its previous condition.

Policy 4.859: All emergency permits shall be conditioned and monitored to insure that all authorized development is approved under a regular coastal development permit in a timely manner, unless no follow up permit is required.

Policy 4.8690: Maintain the permit tracking and monitoring system to identify and prevent the illegal and unpermitted construction of bluff retention devices as a component of the code enforcement program.

CALIFORNIA COASTAL COMMISSION
SAN DIEGO AREA
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SAN DIEGO, CA 92108-4402
(619) 767-2370

March 28, 2014

F17a

TO: COMMISSIONERS AND INTERESTED PERSONS

FROM: SHERILYN SARB, DEPUTY DIRECTOR, SAN DIEGO COAST DISTRICT
DEBORAH LEE, DISTRICT MANAGER, SAN DIEGO COAST DISTRICT
ERIC STEVENS, COASTAL PROGRAM ANALYST, SD COAST DISTRICT

SUBJECT: REVISED FINDINGS ON CITY OF SOLANA BEACH LUP AMENDMENT No. SOL-MAJ-1-13 for Commission Meeting of April 11, 2014

SUMMARY OF COMMISSION ACTION

At the Commission meeting of January 9, 2014, the Commission reviewed an amendment to the City of Solana Beach Land Use Plan (LUP). This item was first brought forward to the Commission at its November 2013 hearing; and, at that hearing, the Commission denied certification of the Land Use Plan Amendment (LUPA) as submitted. The Commission subsequently continued the hearing on adopting the LUP amendment, with modifications, to consider the recently issued Draft Sea Level Rise Guidance Document. In its January 2014 action, the Commission approved the Land Use Plan Amendment with suggested modifications that cover a broad range of topics, and include such things as replacing the existing fixed 20 year authorization period for shoreline armoring with policies to tie shoreline armoring authorization periods to the life of the structure requiring protection; clarifications to existing seacave/notch infill options; options to convert private bluff face stairways to public access upon redevelopment; clarification on allowable improvements to existing non-conforming structures that are not located between the sea and the first public road; and changes to the definition of "Bluff Top Development".

At the Commission hearing, revisions were made to the staff recommendation, thus requiring revised findings. The revisions consist of modifications to Policy 4.17 to clarify that all proposals for additions and/or significant improvements/modifications to bluff top structures may affect the length of time a seawall protecting that structure will remain. Therefore, the policy revisions require an assessment of the impacts associated with retention of the existing shoreline protection in connection with review of any significant improvements and/or additions that may affect the economic life of an existing blufftop structure. Review of any existing shoreline protection will be required to assess the continued need for and impacts of retention of the existing shoreline armoring on public access, shoreline sand supply, visual resources, and ecology and evaluate options to mitigate or avoid any previously unmitigated impacts. In addition, the Commission added the public access and recreation policies of Chapter 3 to the Hazards section of the findings

to emphasize these policies are also considered in addition to Sections 30235 and 30253 in assessing the hazards, risks and impacts to both public resources and private property associated with shoreline and blufftop development.

In addition, the Commission directed that a second erodible concrete infill alternative with a higher strength concrete face be added as an option for stabilization. This stabilization alternative will, however, fix the back of the beach and must be subject to the same analysis and mitigation requirements as the proposed lower seawall stabilization alternative.

The appropriate resolution and motion begins on Page **10**. The suggested modifications begin on Page **10** and they have a separate legend. For the text of the revised findings, additions to reflect the Commission's action are shown in underlined text and deletions to reflect the Commission's action are shown in ~~strike-through~~ text.

COMMISSION VOTES

City of Solana Beach LUP Amendment No. 1-13, approval as submitted:

Commissioners Voting "No": Bochco, Brennan, Cox, Garcia, Groom, McClure, Mitchell, Vargas, Shallenberger, Zimmer, Chair Kinsey

Commissioners Voting "Yes": None

City of Solana Beach LUP Amendment No. 1-13, approve if modified:

Commissioners Voting "Yes": Bochco, Brennan, Cox, Duclos, Groom, McClure, Mitchell, Shallenberger, Zimmer, Chair Kinsey

Commissioners Voting "No": None

Commissioners Eligible to vote on revised findings: Bochco, Cox, Duclos, Groom, McClure, Mitchell, Shallenberger, Zimmer, Chair Kinsey

BACKGROUND

The subject Land Use Plan Amendment (LUPA) was submitted and filed as complete on August 27, 2013. At the November 2013 Commission meeting, the applicant verbally agreed to a one-year time extension. Thus, the date by which the Commission must take action is November 25, 2014.

The subject submittal consists of amendments to only the Land Use Plan portion of the City's LCP. Future certification of an Implementation Plan will be required to fully certify the City's LCP.

SUMMARY OF LUP AMENDMENT

The proposed LUP Amendment (LUPA) #SOL-MAJ-1-13 (Coastal Bluff Development) would amend portions of the recently certified Land Use Plan (LUP) policies and text. The majority of the changes are to Chapter 4 (Hazards and Shoreline/Bluff Development). In addition, the City has proposed changes to portions of Chapter 2 (Public Access and Recreation), Chapter 5 (New Development), Chapter 7 (Public Works), and Chapter 8 (Definitions).

Exhibit 1 shows all of the changes that are proposed by the City to LUP Chapters 2, 4, 5, 7, and 8.

The City proposes to modify the existing LUP policies (Policy Nos. 4.18, 4.47, 4.48, and 4.51) that mandate a 20 year authorization for shoreline armoring by changing the starting date of the 20 year authorizing to the building permit completion certification date rather than the date of the CDP approval. The City is also proposing changes to the LUP policy that establishes the 20 year authorization period for bluff retention devices (Policy 4.52). The existing policy requires that an analysis be done at the end of the 20 year authorization period to determine the continued need for the device and the potential for removal, based on factors that include changed geologic site conditions relative to sea level rise, the age, condition, and economic life of the principal structure on the bluff top and whether the principal structure was existing prior to the implementation of the Coastal Act. The City's changes require an applicant to also analyze the need for repair and maintenance of the bluff retention device in addition to the possibility for removal.

The policy, as revised by the City, would require that the analysis of the device after the 20 year authorization period be based on changed geologic site conditions relative to beach replenishment activities, however, reference to sea level rise and whether the existing structure existed prior to the implementation of the Coastal Act have been removed. Lastly, the City proposes that the applicant only show that the device will "minimize further alteration of the natural landform of the bluff" in place of the current language that requires an applicant to show that the device will "avoid further alteration of the natural landform of the bluff."

In addition, the City has proposed a change to the Land Use Provisions section in Chapter 4 relating to relocation of the threatened portions of existing bluff top homes. The proposal clarifies that for threatened bluff top structures, modification to the building footprint and its foundation further inland "…must be analyzed as a potentially feasible alternative…" in place of the current LUP language that states the option "…will be considered a feasible alternative…" In addition, the City proposes to add language to further clarify the intent of the existing certified LUP relating to the City's preference that mid and upper bluff retention systems only be utilized to protect existing structures in

danger from erosion, if all feasible alternative to mid and upper bluff protection have first been excluded.

In Chapter 4, the City also proposes to allow the use of Public Access/Recreation fees for beach replenishment projects if no near term public access/recreation project can be identified and to allow the use of Sand Replenishment fees for Public Access/Recreation projects if no near term sand replenishment project can be identified. In addition, Public Access/Recreation fees are proposed to be allowed to fund a specific improvement project in lieu of a deposit into the Shoreline District Account.

The proposed changes to Chapter 2 of the LUP relate primarily to existing private stairways on the bluff face. The City's changes clarify the options for private stairways if they are proposed to be redeveloped in the future, and include a possible conversion to public stairways. The proposed changes to Chapter 5 of the LUP require that the policies of the LUP be consistent with the Constitution of the State of California and the United States and clarify that existing non-conforming structures not located between the sea and first public road paralleling the sea can be maintained and repaired so long as the improvements do not increase the degree of non-conformity. The proposed change to Chapter 7 of the LUP was merely to remove any mention of port facilities, due to the fact that the City does not have a port facility within its boundaries. The City's changes to Chapter 8 of the LUP relate to the definition of bluff top redevelopment and propose to replace the reference to interior load-bearing walls in the definition to major structural components, and that alteration to the major structural components are not additive between individual major structural components. In addition, the City proposes to add a definition for "Caisson Foundation" and for "Cantilever"; however, the City is not proposing any changes to existing policies relating to these types of development.

The proposed changes to Chapter 4 also include a change to Exhibit Nos. 4-1 through 4-5, which show the approximate bluff edge, 25' setback, 40' setback, and the Geologic Setback Line (GSL). The proposed change replaces the current description of the Geologic Setback Line (GSL) in the key for each exhibit. The description currently states "*=RECOMMENDED COASTAL COMMISSION SETBACK (40' + 75yrs @ .4ft/yrs).*" The proposed new language states "*=GSL (APPROX.) GSL – GEOLOGIC SETBACK LINE; ACTUAL GEOLOGIC SETBACK LINE TO BE DETERMINED IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN POLICY SECTION 4.25 OF THE CITY OF SOLANA BEACH LUP*."

Exhibit Nos. 4-1 through 4-5 of the certified LUP can be accessed via the following webpage on pages 3-7. A high speed internet connection is recommended to view this site. In addition, reduced black and white versions of Exhibit Nos. 4-1 through 4-5 are included as Exhibit 2 to this report.

http://solana-beach.hdso.net/LCPLUP/LCPLUP-Chapter4.pdf

SUMMARY OF ~~STAFF RECOMMENDATION~~ MODIFICATIONS

At the November 2013 ~~last~~ hearing, the Commission denied the proposed LUP amendment as submitted. Staff is recommending approval of the LUP amendment with suggested modifications.

The City's LUP amendment, as submitted, relates almost entirely to the single family homes and condominium complexes on the bluff top, at or near the bluff edge, along the shoreline in the City of Solana Beach. The City's LUP, as certified by the Commission, identifies the elements of a comprehensive shoreline management plan for the City of Solana Beach. In terms of an overview, the following modifications are needed to approve the LUP amendment consistent with the Chapter 3 policies of the Coastal Act. The outstanding issues and concerns are cited here, along with a brief summation of proposed modifications:

- Staff is recommending that minor clarifications be made to Policy 2.60.5 to ensure that all of the private stairways which currently encroach on public beach area are subject to the requirements of the LUP to convert to public stairways if the stairways are replaced or redeveloped in the future (Suggested Modification 1).

- Subsequent to the certification of the City's LUP, it became apparent that some uncertainty remained regarding the intent of the LUP policies related to seacave and notch infills. The modifications suggested by staff to the description of seacave/notch infill and the related policy do not change the intent of the certified LUP. The changes are proposed to provide additional clarity regarding the options available to address coastal bluff stability (Suggested Modifications 2, 3, and 4) and include two new Figures for stabilization options involving erodible concrete.

- Replacement text stating "encroachment/removal agreement" has been made to the LUP in all places where "encroachment/removal agreement" or "encroachment agreement" is used. This change addresses a concern by the City that encroachment agreements are only required where private development occurs on public property or in the public right-of-way, while a removal agreement can be required where private development occurs on private property (Suggested Modification 5).

- It has been the experience of the Commission that when the mid and upper coastal bluff is reconstructed with a geogrid structure, hydroseeding alone is not an effective method to vegetate the bluff. Staff is recommending that, consistent with standard Commission practice on CDPs, container planting be used in addition to hydroseeding of coastal bluffs, following construction of mid and upper bluff geogrid structures (Suggested Modification 6).

- The vast majority of the seawalls, if not all the seawalls in Solana Beach, are located on either City-owned beach or public tidelands. In addition, the majority of the bluff area in Solana Beach seaward of the bluff edge and to the north of Fletcher Cove is also publicly-owned land. One concern regarding a possible future scenario for Solana Beach is, if the entire shoreline is armored and sea level rises, there may no longer be a public beach. In the future, it may no longer be possible to provide adequate mitigation for the impacts that shoreline armoring causes to public beaches.

  A long-term goal to address sea level rise would be to provide for removal of existing shoreline armoring when the development requiring protection no longer exists or has been moved further landward, to allow the bluff to naturally erode landward and create additional public beach area. In association with new development or redevelopment, pursuant to the current LUP, the applicant must waive any rights to new or additional protective devices. This requires an acknowledgment by the property owner that the residence will be removed incrementally as portions become threatened, rather than rely on protective devices that alter the natural landform of the public bluff and prevent formation of the public beach.

  The proposed LUP amendment has provided an opportunity to more clearly address the potential redevelopment of properties in Solana Beach with particular attention to establishing a linkage between any existing protective device and the existing residential structure it was designed to protect. A key component of the approved LUP is that existing shoreline armoring must be reassessed every 20 years and that the shoreline armoring is subject to an encroachment removal agreement approved by the City.

  Staff is recommending that in place of a fixed 20 year authorization period, that the timeframe for authorization of permits for new seawalls, or alterations or expansion of existing seawalls, be as long as the structure requiring protection still exists. Also the property owner would be required to provide mitigation for impacts, including but not limited to, public access and sand supply, for 20-year mitigation periods. Reassessment of the approved protective structure would occur at the end of the original and subsequent 20-year mitigation periods.

  As revised, the policies would provide a way to address inherent uncertainties, including those related to the lifetime of development being protected by the armoring, changed circumstances and mitigation requirements. As modified, <u>in review of any proposals for significant alteration or improvements and/or additions to an existing blufftop structure that is protected by a shoreline protective device, assessment of the effect of those improvements on the economic life of the existing blufftop structure and the life of the shoreline protective device will be required to address any additional impacts on coastal resources that cannot be avoided and were not mitigated in any prior permitting action. In addition,</u> through waiver of any rights to new protective structures

upon redevelopment of the property and the encroachment removal agreement from the City, removal of existing seawalls and seawalls that may be constructed in the future remains a viable option in the future to assure the use of the entire public beach is not lost as a result of continued sea level rise and the shoreline armoring that protects private bluff top structures (Suggested Modifications 6.5~~7~~-11).

- The City has proposed amendments to the existing definition of 'Bluff Top Redevelopment' to remove reference to interior load-bearing walls and instead to focus on major structural elements of the home. Suggested modifications clarify that alterations are cumulative for individual major structural components and that additions are also cumulative over time. The City also proposes to add a definition of 'Cantilever' to the LUP to allow a maximum 10 foot western cantilever to bluff top development provided that the foundational support is located landward of the geologic setback line/rear yard setback. The Commission supports the City's proposed 'Cantilever' addition. However, a suggested modification replaces the term "rear yard setback" with "bluff edge setback (minimum 40 feet)" in order to clarify the definition and be consistent with the certified LUP (Suggested Modifications 12 and 13).

Exhibit 3 includes all of the changes that are proposed by the City and all of the suggested modifications by Staff shown within the entirety of Chapter 4 of the LUP.

ADDITIONAL INFORMATION

Further information on the Solana Beach LUP amendment SOL-MAJ-1-13 may be obtained from Eric Stevens, Coastal Planner, at (619) 767-2370.

PART I. OVERVIEW

A. LCP HISTORY AND SUBMITTAL

The City of Solana Beach is within the area that was covered by the County of San Diego Local Coastal Program, which covered the north central coast of San Diego County including the areas of Solana Beach, Leucadia, Encinitas, Cardiff, and other unincorporated communities.

The County LCP Land Use Plan, which comprised approximately 11,000 acres, was approved by the San Diego Regional Coast Commission on March 13, 1981. Subsequently, on May 21, 1981, the State Commission certified the LUP with suggested modifications. After three resubmittals, the Commission certified the LUP on August 23, 1984. On September 26, 1984, the Commission certified, with suggested modifications, the Implementation Plan portion of the County's LCP. Subsequently, the County resubmitted for Commission review the Implementation Plan incorporating the Commission's previously suggested modifications, with the exception of that portion of the plan dealing with the coastal bluff areas. On November 22, 1985, the Commission voted to certify the Implementation Plan for the County, except for coastal bluff lots affected by the Coastal Development Area Regulations, where certification was deferred.

On July 1, 1986 and October 1, 1986, the Cities of Solana Beach and Encinitas incorporated, reducing the remaining incorporated area of the County within the coastal zone to less than 2,000 acres. Because of these incorporations, the County indicated that it did not plan to assume coastal permit-issuing authority for the remaining acreage, and the County LCP never became "effectively certified."

The Commission, Commission staff, and the City of Solana Beach then collaborated to develop a Land Use plan for over a decade. At the Commission meeting of March 7, 2012, the Commission reviewed the City of Solana Beach LUP. In its action, the Commission denied as submitted, then approved the land use plan with suggested modifications that cover a broad range of topics, and include such things as standards for bluff top development, additional definitions, clarifications in language to ensure protection for visitor-serving commercial uses, overnight accommodations, environmentally sensitive habitat, visual resources, water quality, and shoreline sand supply. The LUP includes a comprehensive set of policies that address proposals for improvements to and redevelopment of the existing homes located along the blufftop, including long-term shoreline and blufftop development standards that deter the complete armoring and hardening of the City's bluffs, require alternatives analysis and site reassessment when considering any approval or reauthorization of lower, mid or upper bluff protective work; restrict additions and improvements to non-conforming structures that perpetuate an inappropriate line of development in a hazardous location; and clarify what legitimate repair/maintenance activities can continue on non-conforming blufftop residences. Revised findings were adopted by the Commission on June 14, 2012.

The Land Use Plan was subsequently adopted by the Solana Beach City Council on February 27, 2013 with all of the suggested modifications approved by the Commission.

The Solana Beach City Council then approved an amendment to the Land Use Plan at a hearing on May 22, 2013, which is now before the Commission for review (Exhibit 4).

The current submittal is comprised in a binder, entitled Draft Amendment Local Coastal Program Land Use Plan City of Solana Beach, and dated July 11, 2013; the binder includes two separate documents incorporating proposed LUP changes. The first document incorporates changes to the LUP that were circulated for a 6-week public comment period and approved by the Council on May 22, 2013 and the second document incorporates the changes approved by the Council and additional changes to the LUP made by the City Manager subsequent to Council adoption of the LUP. On September 11, 2013 the Council passed a resolution which authorized the City Manager to revise or amend the LUP amendment language and also mandated that any suggested modifications adopted by the Commission would not take effect until such time that the LUP amendment returned to the Council for Council approval (Exhibit 5). Following the Council's resolution, on September 12, 2013, the City provided Commission staff with proposed LUP amendment language incorporating both the changes approved by the Council and additional changes proposed by the City Manager. On October 24, 2013, the City provided updated proposed LUP amendment language that consisted of the deletion of various changes that had been proposed in the previous submittal. As a result of the Council's action on September 11, 2013, the Commission will review the proposed LUP amendment provided by the City on October 24, 2013 that includes both the changes approved by the Council on May 22, 2013 and the subsequent changes made by the City Manager (Exhibit 1).

B. STANDARD OF REVIEW

The standard of review for land use plans, or their amendments, is found in Section 30512 of the Coastal Act. This section requires the Commission to certify an LUP or LUP amendment if it finds that it meets the requirements of Chapter 3 of the Coastal Act. Specifically, it states:

Section 30512

> *(c) The Commission shall certify a land use plan, or any amendments thereto, if it finds that a land use plan meets the requirements of, and is in conformity with, the policies of Chapter 3 (commencing with Section 30200). Except as provided in paragraph (1) of subdivision (a), a decision to certify shall require a majority vote of the appointed membership of the Commission.*

Therefore, the Commission shall take action by a majority vote of the appointed membership of the Commission.

C. PUBLIC PARTICIPATION

The City has held City Council meetings with regard to the subject amendment request. All of those local hearings were duly noticed to the public. Notice of the subject amendment has been distributed to all known interested parties.

PART II. LOCAL COASTAL PROGRAM SUBMITTAL - RESOLUTION

Following a public hearing, staff recommends the Commission adopt the following resolution and findings. The appropriate motion to introduce the resolution and a staff recommendation are provided just prior to the resolution.

I. MOTION: ***I move that the Commission adopt the revised findings in support of the Commission's action on January 9, 2014 concerning the City of Solana Beach LUP Amendment No.1-13.***

STAFF RECOMMENDATION: CERTIFICATION IF MODIFIED AS SUGGESTED:

Staff recommends a **YES** vote on the motion. Passage of this motion will result in the adoption of revised findings as set forth in this staff report. The motion requires a majority vote of the members from the prevailing side present at the January 9, 2014 hearing, with at least three of the prevailing members voting. Only those Commissioners on the prevailing side of the Commission's action are eligible to vote on the revised findings. The Commissioners eligible to vote are:

Commissioners Bochco, Cox, Duclos, Groom, McClure, Mitchell, Shallenberger, Zimmer, Chair Kinsey

RESOLUTION TO CERTIFY SUBMITTED LAND USE PLAN AMENDMENT IF MODIFIED AS SUGGESTED:

The Commission hereby adopts the findings set forth below for the City of Solana Beach LUP Amendment No.1-13 on the grounds that the findings support the Commission's decision made on January 9, 2014.

PART III. SUGGESTED MODIFICATIONS

Staff recommends the following suggested modifications to the proposed Land Use Plan amendment be adopted. The **bold underline** sections represent language that the Commission suggests be added, and the ~~**bold strikethrough**~~ sections represent language which the Commission suggests be deleted from the language as originally submitted. Language shown in underline and ~~strikethrough~~ represents the language that the City proposes to change through the LUPA.

Language shown in **~~bold underline and bold strikethrough~~** is a change proposed by the City and deleted by Commission. LUP Policy numbers are also shown in **bold underline**, but are not Commission changes. Some headings are also shown in **bold**, but are not Commission changes.

Language shown in **bold double underline** represents language that the Commission suggests be added through revised findings, and language shown in **~~bold double strikethrough~~** represents language which the Commission suggests be deleted through revised findings.

Chapter 2 Public Access and Recreation

1. Policy 2.60.5 shall be revised as follows:

Policy 2.60.5: Upon application for a **coastal development** permit for the replacement of a private beach stairway or replacement of greater than 50% thereof, private beach accessways **shall ~~may~~** be converted to public accessways where feasible and where public access can be reasonably provided. The condition to convert the **private** stairway to a public stairway **shall ~~may~~** only be applied where all or a portion of the stairway utilizes public land **, private land subject to a public access deed restriction** or **private land subject to** a public access easement.

Chapter 4 Hazards and Shoreline Bluff Development

2. The following paragraph shall be added prior to the first bullet point on page 13:

- **Infill/Bluff Stabilization – Seacave/Notch Infill (See Appendix B Figure ~~1A~~XX) – This first solution is designed to address sea caves and undercut portions of the lower dense sandstone bluff where the clean sand lens is not yet exposed. If left uncorrected, the sea cave/undercut will eventually lead to block failures of the lower sandstone, exposure of the clean sand lens and landward bluff retreat. This failure exposes the clean sand lens of the upper bluff terrace deposits triggering rapid erosion and landward retreat of the upper bluff, which eventually endangers the structures at the top of the bluff. If treated at this stage, the Bluff Retention Device will minimize the need for a future higher seawall and future upper bluff repair. This alternative is not designed as a structural wall, is not reinforced, does not include tiebacks, and uses only erodible concrete which shall erode at the same erosion rate as the surrounding natural bluff material. The infill is required to maintain a textured and colored face mimicking the existing bluff material. Erodible concrete seacave/notch infills are designed to erode with the natural bluff and, when maintained to do so, are not subject to the sand supply mitigation, public access and recreation mitigation, encroachment/removal agreement, or authorization timeline policies of the LUP.**

3. ~~**"Figure 1A" shall be added as the first figure in Appendix B of the LUP (Reference Exhibit 6, provided by the City on 10/24/13). However, the figure shall be modified to**~~ The City shall **establish two different figures for options for shoreline protection in Appendix B of the LUP. The first figure shall** depict a seacave/notch infill **alternative** that consists solely of erodible concrete with comparable erosion parameters as the adjacent bluff and shall not include a higher strength concrete face on the seaward portion of the infill. The figure shall be re-titled "Preferred Solution – Seacave/Notch Infill." **The second figure shall depict an erodible concrete infill alternative with a higher strength concrete face (Exhibit 6) and shall include notes consistent with the notes of the lower seawall alternative (shown in Exhibit 7 - Appendix B Figure 1 of the LUP). The Figures for Appendix B of the LUP shall then be renumbered accordingly.**

4. The description of 'Infill/Bluff Stabilization' on page 13 shall be revised as follows:

- **Infill/Bluff Stabilization – Lower Seawall (See Appendix B Figure ~~1~~XX and XX)** – This ~~**first**~~ solution is designed to address sea caves and undercut portions of the lower dense sandstone bluff where the clean sand lens is not yet exposed. If left uncorrected the sea cave/undercut will eventually lead to block failures of the lower sandstone, exposure of the clean sand lens and landward bluff retreat. This failure exposes the clean sand lens of the upper bluff terrace deposits triggering rapid erosion and landward retreat of the upper bluff, which eventually endangers the structures at the top of the bluff. If treated at this stage, the bluff retention system will minimize the need for a future higher seawall and future upper bluff repair. **Stabilization will consist of an erodible concrete infill with a higher strength concrete face on the seaward portion of the infill or will be** ~~**This stabilization method is**~~ designed as a structural wall and will be reinforced, have structural tiebacks into the sandstone bedrock and will be required to have a textured face mimicking the existing material.

5. At the request of the City, on pages 15 and 31 of Chapter 4 of the LUP, "encroachment removal agreement" shall be modified to instead state "encroachment /removal agreement" and on page 34 of Chapter 4 the LUP, "encroachment agreement" shall be modified to instead state "encroachment /removal agreement".

6. The last sentence of the description of 'Seawall and Upper Bluff Repair' on page 13 shall be revised as follows:

- …The lower seawall is textured to simulate the existing bluff material and the upper soil is similar to the existing soil and is hydro-seeded **and planted with container plantings consisting of** ~~**with**~~ native, drought tolerant, non-invasive, and salt tolerant vegetation.

6.5. Policy 4.17 shall be revised as follows:

Policy 4.17: New development shall be set back a safe distance from the bluff edge, with a reasonable margin of safety, to eliminate the need for bluff retention devices to protect the new improvements. All new development, including additions to existing structures, on bluff property shall be landward of the Geologic Setback Line (GSL) as set forth in Policy 4.25. This requirement shall apply to the principal structure and accessory or ancillary structures such as guesthouses, pools, tennis courts, cabanas, and septic systems, etc. Accessory structures such as decks, patios, and walkways, which are at-grade and do not require structural foundations may extend into the setback area no closer than five feet from the bluff edge. On lots with a legally established bluff retention device, the required geologic analysis shall describe the condition of the existing seawall; identify any impacts it may be having on public access and recreation, scenic views, sand supply and other coastal resources; and evaluate ~~**opportunities**~~ **options** to **mitigate any previously unmitigated impacts of the structure or** modify**, ~~or~~** replace**, or remove** the existing protective device in a manner that would eliminate or reduce those impacts. **In addition, any significant alteration or improvement to the existing structure shall trigger such review (i.e. the analysis of the seawall) and any unavoidable impacts shall be mitigated.**

7. Policy 4.18 shall not be deleted, as proposed by the City, and the original policy shall instead be revised as follows:

Policy 4.18: A legally permitted bluff retention device shall not be factored into setback calculations. Expansion and/or alteration of a legally permitted bluff retention device shall include a reassessment of the need for the shoreline protective device and any modifications warranted to the protective device to eliminate or reduce any adverse impacts it has on coastal resources or public access, including but not limited to, a condition for a reassessment and reauthorization of the modified device ~~**in 20 years**~~ **pursuant to Policy 4.52.**

8. Policy 4.47 shall be revised as follows:

Policy 4.47: A Seacave/Notch Infill shall be approved only if all the findings set forth below can be made and the stated criteria satisfied. ~~**The permit shall be valid for a period of 20 years commencing with the** date of CDP approval **building permit completion certification date and subject to an encroachment removal agreement approved by the City.**~~

A. Based upon the advice and recommendation of a licensed Geotechnical or Civil Engineer, the City makes the findings set forth below:

1. The Seacave/Notch Infill is more likely than not to delay the need for a larger coastal structure or upper bluff retention structure, that would, in the foreseeable future, be necessary to protect an~~d~~ existing principal structure, City facility, and/or City infrastructure, from danger of erosion. Taking into

consideration any applicable conditions of previous permit approvals for development at the site, a determination must be made based on a detailed alternatives analysis that none of the following alternatives to the coastal structure are currently feasible, including:

- Controls of surface water and site drainage;
- A smaller coastal structure; or
- Other non-beach and bluff face stabilizing measures, taking into account impacts on the near and long term integrity and appearance of the natural bluff face, and contiguous bluff properties; and,

2. The bluff property owner did not create the necessity for the Seacave/Notch Infill by unreasonably failing to implement generally accepted erosion and drainage control measures, such as reasonable management of surface drainage, plantings and irrigation, or by otherwise unreasonably acting or failing to act with respect to the bluff property. In determining whether or not the bluff property owner's actions were "reasonable," the City shall take into account whether or not the bluff property owner acted intentionally, with or without knowledge, and shall consider all other relevant credible scientific evidence as well as relevant facts and circumstances.

3. The location, size, design and operational characteristics of the proposed seacave/notch infill will not create a significant adverse effect on adjacent public or private property, natural resources, or public use of, or access to, the beach, beyond the environmental impact typically associated with a similar bluff retention device and the seacave/notch infill is the minimum size necessary to protect the principal structure, and has been designed to minimize all environmental impacts, and provides mitigation for all coastal and environmental impacts as provided for in this LCP.

B. The Seacave/Notch Infill shall be designed and constructed:

1. To avoid migration of the Seacave/Notch Infill onto the beach;

2. To be re-contoured to the face of the bluff, as needed, on a routine basis, through a CDP or exemption, to ensure the seacave/notch infill conforms to the face of the adjoining natural bluff over time, and continues to meet all relevant aesthetic, and structural criteria established by the City;

3. To serve its primary purpose which is to delay the need for a larger coastal structure, and designed to be removable, to the extent feasible, provided all other requirements under the LCP are satisfied; and,

4. To satisfy all other relevant LCP and City Design Standards, set forth for ~~**coastal structures**~~ **Bluff Retention Devices**.

~~C. The Bluff Property Owner shall arrange for and pay the costs of:~~

~~1. The licensed Geotechnical or Civil Engineer; and~~

~~2. The Seacave/Notch Infill~~

~~3. Appropriate mitigation~~

~~4. All necessary repairs, maintenance, and if needed removal.~~

~~CD.**Only to the extent the City finds that the Seacave/Notch Infill encroaches on the public beach or upon the bluff face such that coastal resources are adversely impacted, then the City shall impose a Sand Mitigation Fee upon the bluff property owner.**~~

9. Policy 4.48 shall be revised as follows:

Policy 4.48~~51~~: Coastal structures shall be approved by the City only if all the following applicable findings can be made and the stated criteria satisfied. The permit shall be valid **until the currently existing structure requiring protection is redeveloped (per definition of Bluff Top Redevelopment in the LUP), is no longer present, or no longer requires a protective device, whichever occurs first** ~~**for a period of 20 years commencing with the building permit completion certification date** date of CDP approval~~ and subject to an encroachment~~-~~/removal agreement approved by the City.

[…]

C. Mitigation for the impacts to shoreline sand supply, public access and recreation and any other relevant coastal resource impacted by the coastal structure is required and shall be assessed in 20-year increments, starting with the building permit completion certification date. Property owners shall apply for a CDP amendment prior to expiration of each 20-year mitigation period, proposing mitigation for coastal resource impacts associated with retention of the coastal structure beyond the preceding 20-year mitigation period and shall include consideration of alternative feasible measures in which the permittee can modify the coastal structure to lessen the coastal structure's impacts on coastal resources. Monitoring reports to the City and the Coastal Commission shall be required every five years from the date of CDP issuance until CDP expiration, which evaluate whether or not the coastal structure is still required to protect the existing structure it was designed to protect. The permittee is required to submit a CDP application to remove the authorized coastal structure within six months of a determination that the coastal structure is no longer required to protect the existing structure it was designed to protect.

10. The first paragraph of Policy 4.51 shall be revised as follows:

Policy 4.514: An upper bluff system shall be approved only if all the following applicable findings can be made and the stated criteria will be satisfied. The permit shall be valid **until the currently existing structure requiring protection is redeveloped (per definition of Bluff Top Redevelopment in the LUP), is no longer present, or no longer requires a protective device, whichever occurs first** ~~for a period of 20 years commencing with the building permit completion certification date~~ ~~date of CDP approval~~ and subject to an encroachment ~~/~~**/removal** agreement approved by the City.

[…]

D. Mitigation for the impacts to shoreline sand supply, public access and recreation and any other relevant coastal resource impacted by the upper bluff system is required and shall be assessed in 20-year increments, starting with the building permit completion certification date. Property owners shall apply for a CDP amendment prior to expiration of each 20-year mitigation period, proposing mitigation for coastal resource impacts associated with retention of the upper bluff system beyond the preceding 20-year mitigation period and shall include consideration of alternative feasible measures in which the permittee can modify the upper bluff system to lessen the upper bluff system's impacts on coastal resources. Monitoring reports to the City and the Coastal Commission shall be required every five years from the date of CDP issuance until CDP expiration, which evaluate whether or not the upper bluff system is still required to protect the existing structure it was designed to protect. The permittee is required to submit a CDP application to remove the authorized upper bluff system within six months of a determination that the upper bluff system is no longer required to protect the existing structure it was designed to protect.

11. Policy 4.52 shall be revised as follows:

Policy 4.525: All permits for bluff retention devices shall expire ~~**20 years after**~~ ~~approval of the CDP~~, ~~**the building permit completion certification date,**~~ **when the currently existing blufftop structure requiring protection is redeveloped (per definition of Bluff Top Redevelopment in the LUP), is no longer present, or no longer requires a protective device, whichever occurs first** and a new CDP must be obtained. Prior to expiration of the permit, the bluff top property owner shall apply for a coastal development permit to remove, modify or retain the protective device. In addition, expansion and/or alteration of a legally permitted existing bluff retention device shall require a new CDP **and be subject to the requirements of this policy.**

The CDP application shall include a re-assessment of need for the device, the need for any repair or maintenance of the device, and the potential for removal based on changed conditions. The CDP application shall ~~evaluate~~ include an evaluation of:

- ~~the~~The age, condition and economic life of the existing principal structure;

- changed geologic site conditions **including but not limited to, changes relative to sea level rise, ~~including~~** implementation of **~~the City's long-term USACE beach nourishment program or similar~~** **a** long-term, large scale sand replenishment or shoreline restoration program; and

- any impact to **coastal resources, including but not limited to** public access and recreation.

~~relative to sea level rise and the age, condition, and economic life of principal structure including whether it was an existing structure on January 1, 1977 (prior to implementation of the Coastal Act). Prior to expiration of the permit, the bluff top property owner shall apply for a coastal development permit to either remove or retain the protective device.~~ The CDP shall include a condition **requiring ~~of~~** reassessment **~~and reauthorization~~ of the impacts** of the device in 20-year**~~s~~ mitigation periods pursuant to Policies 4.48 and 4.51**.

No permit shall be issued for retention of a bluff retention device unless the City finds that the bluff retention device is still required to protect an existing principal structure **in danger from erosion**, that it will minimize ~~avoid~~ further alteration of the natural landform of the bluff, and that adequate mitigation for **coastal resource** impacts**, including but not limited to impacts** to the public beach has been provided.

Chapter 8 –Definitions

12. The definition of 'Bluff Top Redevelopment' shall be revised as follows:

Bluff Top Redevelopment: Shall apply to **~~structures~~ proposed development** located between the sea **~~and the inland extent of the sea~~** and the first public road paralleling the sea (or lagoon) that consist**s** of **alterations including** (1) additions **to an existing structure,~~;~~** (2) exterior and/or interior renovations**~~;~~** (3) **and/**or demolition of an existing bluff home or other principal structure**, or portions thereof,** which results in:

~~(1) Alteration of 50% or more of an existing structure, including but not limited to, alteration of 50% or more of exterior walls, interior load-bearing walls, or a combination of both types of walls, or a 50% increase in floor area.; or~~

~~(2) Demolition, renovation or replacement of less than 50% of an existing structure where the proposed remodel would result in cumulative alterations exceeding 50% or more of the existing structure from the date of certification of the LUP.~~

(**~~1~~a**) Alteration of 50% or more of major structural components **including exterior walls, floor and roof structure, and foundation,** ~~;~~ or ~~(2)~~ a 50% increase in floor

area. Alterations are not additive **~~or cumulative~~** between individual major structural components; however, changes to individual major structural components are cumulative over time from the date of certification of the LUP.

(b) Demolition, renovation or replacement of less than 50% of a major structural component where the proposed alteration would result in cumulative alterations exceeding 50% or more of a major structural component, taking into consideration previous alterations approved on or after the date of certification of the LUP; or an alteration that constitutes less than 50% increase in floor area where the proposed alteration would result in a cumulative addition of greater than 50% of the floor area, taking into consideration previous additions approved on or after the date of certification of the LUP.

13. The definition of 'Cantilever' shall be revised as follows:

Cantilever: A projecting or overhanging structure of up to 10 feet in depth on the west side of a Bluff Home that is supported at one end and carries a load at the other end or along its length. Cantilever construction allows for structures to project seaward of the GSL or **~~rear yard~~ bluff edge** setback **(minimum 40 feet)** without external bracing. All foundation footings and structural supports for cantilevered square footage shall be located landward of the geologic setback line **~~/rear yard~~ or bluff edge** setback **(minimum 40 feet)**. No newly constructed cantilevered square footage is permitted to project over the bluff edge.

PART IV. FINDINGS FOR DENIAL OF CERTIFICATION OF THE SOLANA BEACH LAND USE PLAN AMENDMENT, AS SUBMITTED, AND APPROVAL, AS MODIFIED

For the text of the revised findings, additions to reflect the Commission's action are shown in underlined text and deletions to reflect the Commission's action are shown in ~~strike-through~~ text.

The Commission finds and declares as follows:

1. Hazards/Shoreline Protection

a. Plan Summary. The City of Solana Beach has approximately 1.4 miles of shoreline consisting of steep bluffs, and bluff stability is a significant concern along the entire coastal bluff area. The shoreline policies are intended to regulate the construction of shoreline protective devices and to allow appropriate protection for existing bluff top structures, consistent with Coastal Act requirements, as implemented through the LUP.

The City is primarily proposing to amend LUP policies related to shoreline protection and development. The bulk of the policies dealing with shoreline development are contained in Chapter 4 (Hazards & Shoreline/Bluff Development) of the LUP, although some relevant policies are in Chapter 5 (New Development) and in Chapter 8

(Definitions). The current LUP policies address preferred types of bluff retention devices, sand mitigation fees and a public recreation payment, non-conforming structures, bluff top development strategies, standards for new bluff top development, policies on additions to existing structures on bluff tops, repair and maintenance of bluff top structures, and policies for demolition and reconstruction of blufftop homes. The LUP also provides criteria for when and how various types of shoreline protective devices can be approved.

The adopted revised findings staff report for the currently certified Solana Beach LCP Land Use Plan approved by the Commission June 14, 2012 can be found here:

http://documents.coastal.ca.gov/reports/2012/6/Th24a-6-2012.pdf

b. Applicable Coastal Act Policies

Section 30235

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

Section 30253

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 30210

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

Section 30211

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

(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 accessways 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. […]

Section 30212.5

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 30221

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

c. Conformity with Chapter 3 Policies.

As background, in Chapter 8 (Definitions), the City defines “Bluff Retention Devices” as including all forms of shoreline protection, from seacave/notch infills, to seawalls, to mid and upper bluff protection. “Seacave/Notch Infill” refers to filling of a seacave, notch, joint, fault, rupture or crack in the bluff, “Coastal Structures” refers only to structures

located at the base of the bluff (seawall, revetment, or riprap), and "Upper Bluff System" is a device to retain the portion of the bluff located above areas subject to erosion. This staff report uses the City's terminology as appropriate, although "shoreline protection" and "shoreline armoring" are also used throughout the LUP and this report to generically refer to all forms of shoreline and bluff structures used to protect existing blufftop structures from erosion.

Ownership

Although, site specific anomalies may exist along the coast in Solana Beach, the area seaward of the toe of the bluff is public along the City's entire coastline and the area located between the bluff edge and the toe of the bluff south of Fletcher Cove is private, while the area located between the bluff edge and the toe of the bluff north of Fletcher Cove is for the most part, public[1] (Exhibit 11).

Throughout the majority of Solana Beach, the area between the toe of the bluff and the ocean is most likely Public Trust Lands. Public Trust Lands can include, but are not limited to tide lands[2] and submerged lands. Public Trusts Lands can also include historic tidelands and submerged lands that are presently filled or reclaimed and which were subject to the Public Trust at any time (Public Resources Code 13577). In the City of Solana Beach, the Mean High Tide Line (MHTL) is at the toe of the bluff. The City has received substantial beach nourishment over the past decade which has raised the sand

[1] In 1988 the City of Solana Beach approved a resolution to allow the transfer of publicly owned coastal bluff face to each blufftop homeowner whenever development on the blufftop lot was proposed (Resolution No. 88-45). The purpose of the resolution was to transfer the liability associated with the eroding bluff and any future shoreline device to the blufftop homeowner. Since 1988, the City has created and quitclaimed approximately 6 or 7 bluff face lots to the blufftop property owners. Land divisions such as the "carving out" of lots from publicly owned land constitutes development under the Coastal Act and requires a coastal development permit. The Commission has approved approximately two coastal development permits for these quitclaimed lots (Ref: CDP Nos. 6-91-129/Steinberg; 6-92-082/Vicker). However, coastal development permits have not been approved for the majority of these quitclaimed lots and, therefore, the majority of these quitclaimed lots are unpermitted. The Commission subsequently stopped approving such transfer and gift of public land by the City due to Coastal Act consistency concerns related to scenic resources, public access, recreation and shoreline sand supply (Ref: CDP #6-06-104/Vams, LLC).

[2] Tidelands include "those lands lying between the lines of mean high tide and mean low tide which are covered and uncovered successively by the ebb and flow thereof." (*Lechuza Villas West v. CA Coastal Commission* (1997) 60 Cal.App.4th 218, 235). The State owns all tidelands and holds such lands in trust for the public. (*Id.; State of Cal. Ex rel. State Lands Com. V. Superior Court* (1995) 11 Cal.4th 50, 63; California Civil Code section 670). "The owners of land bordering on tidelands take to the ordinary high water mark. The high water mark is the mark made by the fixed plan of high tide where it touches the land; as the land along a body of water gradually builds up or erodes, the ordinary high water mark necessarily moves, and thus the mark or line of mean high tide, i.e., the legal boundary, also moves." (*Lechuza*, 60 Cal.App.4th at 235). In other words, the boundary between private property and public tidelands is an ambulatory line. (*Id*. at 242.)

level on the beach and resulted in the high tide not reaching the toe of the bluff as frequently in some locations. In these locations, the beach replenishment projects do not change the MHTL and the MHTL is still likely at the toe of the bluff. Public Resources Code 13577 defines the MHTL "…as the statistical mean of all the high tides over the cyclical period of 18.6 years…" Based on the location of the MHTL, any existing or future seawall or seacave/notch infill is likely on public land.

Consistency with the "California Coastal Commission Draft Sea-Level Rise Policy Guidance"

On October 14, 2013, the Commission released a document titled "California Coastal Commission Draft Sea-Level Rise Policy Guidance" out for public review. The information in the guidance document is rooted in certain fundamental guiding principles, many of which derive directly from the requirements of the Coastal Act. In this respect, the principles are not new, but rather generally reflect the policies and practices of the Commission since its inception in addressing coastal hazards and the other resource and development policies of the Act. The draft guidance document acknowledges that climate change is causing the sea level to rise along the coast of California and that the Commission and coastal communities must prepare for the effects of sea-level rise. The guidance document further recognizes the potential risks to the State of California's economy, which includes coastal tourism, commercial fisheries, coastal agriculture, and ports. Furthermore, the guidance document recognizes the risks to coastal property, coastal infrastructure, and public beaches and recreational resources. The document includes pro-active steps that can be taken by the Commission, local governments, permit applicants and other interested parties to prepare for sea level rise in the context of the LCP and the CDP process.

The guidance document is particularly relevant to the subject LCP amendment in terms of shoreline armoring. As discussed in the guidance document, shoreline armoring has the potential to lead to loss of public beaches as the sea level rises and beaches are no longer able to retreat landward. Siting new development in locations that will not require a seawall in the future and limiting the retention of existing seawalls and the construction of new seawalls, when feasible, will help to ensure maximum public access to the coast. Furthermore, the guidance document stresses the importance of ensuring that property owners assume the risk of development in hazardous areas throughout the life of the development, which includes risks to both private property and to adjacent coastal resources that may be adversely impacted.

In order to ensure that coastal resources are protected, adequate mitigation for all impacts to public coastal resources must be provided (i.e. public access, sand supply, biological value, visual aspects, etc.). Section IV of the guidance document, which is intended to aid the Commission and local governments in addressing sea level rise in local coastal programs, identifies adaptation measures to minimize risks of new development. The adaptation measures include, in part, adding conditions to shoreline protective devices that limit authorization for the device to the life of the existing development being protected and requiring mitigation for unavoidable public resource impacts of shoreline structures. Additional adaptation measures are contained in Appendix C of the guidance

document and include, in part, conditionally permitting shoreline protection structures to require removal or modification of armoring in the future if the need for protection or site conditions change; discouraging the use of 'hard' protection unless no other feasible alternative is available and requiring designs that address or can be adapted to changing sea level; offering incentives for removal of 'hard' structures and/or incorporating removal of 'hard' structures into Capital Improvement Plans; allowing permits to be re-opened after a specified time to assess effectiveness in light of sea level rise or in the event that the structure may no longer be useful or appropriate in the future; and requiring that property owners waive rights to future shoreline protection and instead require removal or relocation of structures built in hazardous areas if threatened by erosion/sea level rise in the future. The City's certified LUP and the proposed LUP amendment, as modified, incorporate many of the adaptation measures contained within the "California Coastal Commission Draft Sea-Level Rise Policy Guidance."

Shoreline Hazards

The bluffs and beaches in the City of Solana Beach are public natural resources and a source of public recreational opportunities, public accessways, natural habitat, and an important part of the City's natural beauty. Solana Beach's shoreline has been almost completely built out; there is only one vacant bluff top lot in the entire City. Most of the existing structures located along the City's bluff tops were built in a location that is now considered at risk from shoreline erosion. This is due in part to the distinctive geology of Solana Beach's shoreline.

New Development/Redevelopment of Blufftop Lots - Current Development Patterns:

Due to the fact that many if not all of the existing single family bluff top homes are now located too close to the bluff edge, if they remain in their existing location, they are currently or will likely ultimately be subject to threat from coastal bluff erosion. The LUP, as certified, contains policies which encourage moving the line of residential development further landward to avoid armoring of the coastal bluff from top to toe. Through review of the historic pattern of development, it is clear there are limitations to the extent of improvements that should be permitted to existing structures in their current location. Extensive renovation within the existing footprint would perpetuate the need for bluff retention devices to stabilize the structure in that location. A preferred scenario is to gradually move the line of development inland, through removal of threatened portions, or complete redevelopment of the structures, to avoid impacts to the adjacent coastal resources of the beach and bluffs associated with shoreline armoring. Pursuant to the modifications suggested by the Commission in its action approving the proposed Land Use Plan amendment, significant alteration or improvements and/or additions to such non-conforming structures shall include an analysis of the effect of those improvements on the economic life of the home and, by extension, the life of the shoreline device that is required to protect it in that non-conforming location. Options to modify, remove or replace the shoreline device shall be considered to avoid or minimize any impacts to coastal resources that have not been previously mitigated through approval of prior permits for development.

The City has provided Exhibit 8 to illustrate three examples of existing bluff top homes with the largest, average, and smallest front yard setback from the street and rear setback from the bluff edge.

There are currently 53 bluff top single family residences in the City of Solana Beach all located north of Fletcher Cove Beach Park. Of the 53 homes, approximately 35 homes (~70%) have a lower seawall at the base of the bluff. Of the 35 homes with a lower seawall, approximately 15 have some form of mid or upper bluff armoring consisting of a geogrid structure and/or a below-grade upper bluff retention device. In addition, 2 homes have a below-grade upper bluff retention device and no seawall. Approximately 16 homes (~30%) have only seacave or notch infills or a natural bluff with no seawall or mid or upper bluff protection. In addition, there is one vacant undeveloped bluff top lot with only a seacave/notch infill at the base of the bluff (Exhibit 9).

There are 9 bluff top Condominium complexes in the City of Solana Beach all south of Fletcher Cove Beach Park. Of the 9 complexes, 6 complexes (~67%) have a full or partial lower seawall at the base of the bluff. Of the 6 complexes with a lower seawall, 3 have some form of mid or upper bluff armoring consisting of a geogrid structure, retaining wall and/or below-grade upper bluff retention device. Three complexes (~33%) have only seacave or notch infills or a natural bluff with no seawall or mid or upper bluff protection (Exhibit 9).

Based on a general analysis of permits issued by the Commission for shoreline armoring and the use of current aerial photos of the bluff, staff found that approximately 50% of the shoreline of Solana Beach is actually armored. This figure is lower than what might be expected from the information presented in the preceding two paragraphs due to the fact that the entire beach frontage of Fletcher Cove Beach Park is not armored and 5 out of the 6 condominium complexes only have partial seawalls that do not cover their entire frontage.

Nearly all of the existing shoreline armoring devices in the City were approved and constructed after implementation of the Coastal Act. An objective of the certified LUP is to provide for adequate mitigation for sand supply, public access and recreational impacts, and habitat impacts to the beach ecology that result from the construction of shoreline armoring devices. The majority of the past approvals by the Commission for seawalls only required that the applicant pay a sand mitigation fee, which the Commission began to assess in Solana Beach in 1999. However, less than half of the existing seawall approvals were required to pay a mitigation fee for public access and recreation impacts, which the Commission did not begin to assess in Solana Beach until 2005.

Prior to 2005, the Commission only addressed the then quantifiable sand mitigation fee when it approved new shoreline armoring devices in Solana Beach. However, the Commission typically included findings for those new shoreline armoring approvals that acknowledged that the shoreline armoring device has significant adverse impacts on the beach environment, which are ongoing for the life of the device, which cannot be fully mitigated through a one-time sand mitigation payment. In addition, the Commission has

acknowledged that impacts can change over time or become more significant as the area of beach available for public access continues to erode. The sand mitigation payment required by the Commission was based on a proposed design life of the shoreline armoring device, which was typically 20 to 30 years. Inherent in the Commission's past calculation of the sand mitigation fee is the requirement that applicants return to the Commission in order mitigate the impacts of shoreline armoring devices for any impacts that may occur after the initial proposed design life. Given the significant impacts that existing and new seawalls can have on coastal resources, especially public access, recreation and sand supply, it must be a high priority for the Commission and the City to ensure that all existing and new seawalls adequately mitigate for their impacts to sand supply, public access and recreation and any other impacts on coastal resources so long as the seawalls exist and still serve the function of protecting the existing structure it was designed to protect. It is important the full risks and costs of developing in hazardous locations, including impacts (costs) to public coastal resources, be borne by the development itself. Policies of the City's LUP and Commission findings for past shoreline armoring approvals provide for on-going reassessment of shoreline armoring devices and changed circumstances to assure all impacts are adequately mitigated.

The City has provided aerial map exhibits of the entire shoreline showing the coastal bluff edge, a 25 ft. setback, a 40 ft. setback, and the approximate Geologic Setback (GSL) Line (http://solana-beach.hdso.net/LCPLUP/LCPLUP-Chapter4.pdf). The GSL line is the cumulative setback distance of 75 years-worth of projected erosion of 0.4 feet per year and a location where development can be safely sited with an industry standard Factor of Safety of 1.5. These aerial maps have been provided as exhibits to the staff report (Exhibit 2). On the aerial map exhibits, the GSL is only an approximation and is shown as an approximate 70 ft. setback from the bluff edge.

The City has also previously provided a survey showing the approximate size of existing bluff top homes and garages to determine an average home size. The City found that the average bluff top home in Solana Beach is approximately 2,000 sq. ft. plus a 400 sq. ft. garage. In order to obtain this size home, a footprint of approximately 1,200 sq. ft. would be needed for a two-story structure. The City has indicated that given the size of the existing lots and geologic constraints, strict compliance with the LUP policies on geologic setbacks and other development standards would preclude construction of a new primary residence on many lots, even with reductions in the front yard setback and parking standards, as described in Policy 4.24. The Commission acknowledges an analysis must be done on a case-by-case basis, taking into account the size and configuration of the particular lot, geologic conditions, past permit special conditions on the site and the proposed new structure in question before redevelopment potential and reasonable use for any lot can be determined. Using these scaled exhibits, Coastal Commission staff was able to approximate the following information:

- Approximately 1/3 or 17 of the 53 existing single family homes are currently located 25 ft. or greater from the bluff edge and 2 of the homes are currently located 40 ft. or greater from the bluff edge.

- Approximately half or 26 of the 54 single family properties have an average distance of at least 15 ft. between the GSL line and the western edge of the side walk that is adjacent to the front property line.
- Approximately 1/6 or 9 of the 54 single family residential properties would be able to achieve a building footprint of at least 1,200 sq. ft. if the entire footprint was located landward of the GSL. The building footprint is based on the assumption that 5 ft. front and side yard setbacks would be used. If an additional 400 sq. ft. footprint due to cantilever is used, then approximately 15 of the 54 single family properties could achieve a reasonable sized structure with all foundational support landward of the GSL.
- Approximately 2/3 or 35 of the 54 single family residential properties would be able to achieve a building footprint of at least 1,200 sq. ft. if the entire footprint was located landward of a 40 ft. setback line. The building footprint is based on the assumption that 5 ft. front and side yard setbacks would be required. A first and second floor cantilever would provide an additional footprint of 400 sq. ft. and an additional 800 sq. ft. of living area with a 50 ft. wide lot. Thus, if the maximum cantilever area is constructed, even greater than 2/3 (approximately 47) of the 53 homes could achieve a reasonable sized structure with all foundational support landward of a 40 ft. setback line.

The City has stated that local requirements for private view protection may prevent some bluff top property owners from constructing a two story home; however, the City has provided data stating that 33 of the 53 existing homes are two stories. Private view protection is not required pursuant to the Coastal Act and any such impacts must be weighed against the need to reduce risk for structures in hazardous areas and to avoid encroachment on the coastal resources including the beach and bluff while still providing the property owners a reasonable use of their bluff top property. Therefore, redevelopment including a second story and possibly a cantilevered area with structural foundation at the established blufftop setback line appear to be possible to increase the size of a redeveloped home.

The City has also provided data showing the age of bluff top homes and whether or not a home has been remodeled and or added sq. ft. in the past. The data is summarized as follows (**this data has not been verified by Commission staff):

- The average year built is 1970
- The oldest home was built in 1949 and the newest home was built in 1998
- 3 of the homes have been re-constructed in the past 20 years
- 29 of the homes have either remodeled or constructed an addition to the original home
- 24 of the homes have not remodeled or constructed any additions

Based on the information above, it is clear that the City's inventory of bluff top homes is reaching the point when substantial improvements or complete redevelopment may be considered by the property owner. LUP Policy 4.17 and 4.24, as certified, require new development and additions to existing development on bluff top lots to be setback

landward of the Geologic Stability Line (GSL) such that it does not rely on new or existing bluff retention devices. In addition, the LUP policies, as certified, encourage a revised building footprint at least 40 ft. inland from the bluff edge, on caissons, as a preferred alternative to additional mid and upper bluff protective devices. Furthermore, review of substantial improvements to the portion of the structure seaward of the GSL will be required to limit construction that will result in extending the life of the existing residence in a hazardous location and, thus, the seawall on the public beach required to protect it.

The Commission's adopted Revised Findings for certification of the Solana Beach LCP Land Use Plan, as approved on June 14, 2012, state:

> *"Thus, as modified, LUP policies make it clear that once a lower seawall has been constructed, mid and upper bluff protection devices cannot be approved unless a detailed alternatives analysis determines that there are no feasible alternatives. Specifically, Policy 4.56 requires consideration of a revised building footprint and foundation system (e.g., caissons) with a setback that avoids future exposure and alteration of the natural landform as an alternative to mid and upper bluff protective devices, and a determination that such an alternative is not feasible.*
>
> *Caissons are foundation systems created by drilling holes and filling them with concrete. The caissons can be drilled to bedrock or deep into the underlying strata, as necessary, depending on the soil type and the required factor of safety for the site. The piers provide stability and support for the above structures, such that even on the small lots that exist along the Solana Beach shoreline, the structures they support could be sited in a location that would be safe from the threat of erosion for the life of the structure. The drawbacks of caissons are that even though initially placed below ground, when they are constructed close to the edge of a bluff, should the bluff continue to erode, the piers can become exposed, revealing a concrete structure representing exactly the type of visual blight and substantial alteration of the natural landforms of the bluff that section 30253 of the Coastal Act prohibits.*
>
> *Therefore, as modified, the LUP permits the use of caisson foundations as an alternative to mid and upper bluff protection when the caissons are used to re-site/re-build new development set back in a location safe from erosion for 75 years, and far enough inland from the bluff edge such that it can reasonably be expected that the caissons will never be exposed. In other words, once a site is protected by a seawall and thus, no longer threatened by marine erosion, should the existing principal structure be further threatened by the instability of the upper bluff, rather than approve mid or upper bluff protection, the City must determine that moving and/or rebuilding the existing structure on a safer inland location on the lot, is not a feasible alternative.*

Policy 4.27, as modified, requires that all new bluff property development be set back from the bluff edge a sufficient distance to ensure it will not be in danger for erosion and that it will ensure stability for its projected 75-year economic life. Typically, as described in Policy 4.27, determining this location involves a quantitative slope analysis demonstrating a minimum factor of safety. In no case can the setback be less than 40 feet from the bluff edge, and only if it can be demonstrated that the structure will remain stable, as defined above, at such a location for its 75-year economic life and has been sited safely without reliance on existing or future bluff retention devices. Because the shoreline lots in Solana Beach are narrow, there are many lots for which it would be difficult, if not impossible, to build on and meet this criteria.

However, Policy 4.25, as modified, allows the City to consider as an option for new structures, the use of a caisson foundation with a minimum 40 foot bluff top setback, if caissons would allow the structure to meet the stability requirement and avoid alteration of the natural landform along the bluffs, i.e., exposure of the caissons in the future. The Commission's engineer has reviewed the LUP and the geologic conditions of many lots on the Solana Beach shoreline. He has concluded that in many cases, once the lower bluff and clean sands lens is encapsulated by a seawall, it is likely that the upper bluff will be able to reach a stable angle of repose at approximately 35 degrees (as measured from the top of the seawall). At this point, the bluff may remain relatively stable for years. Therefore, under this scenario, it can reasonably be assumed that a caisson foundation located inland of the 35 degree line, will not become exposed.

To be clear—Policy 4.27, as modified, requires new development to be sited without reliance on existing bluff retention devices; the siting of a new structure cannot depend on the presence of an existing seawall to determine a safe location. But for a blufftop lot that already has a seawall, this policy may allow construction of a new home, albeit most likely a smaller home, because the caissons would allow the new home to be sited safely, while the presence of the seawall would ensure that the caissons will not be exposed in the future. Currently, the only option for some bluff top property owners is to maintain their existing residence in place, because there is no safe location to relocate on the site if caissons are not used. In any case, as modified, the LUP requires that before any application for mid or upper bluff protection can be approved, the City must determine that relocating/rebuilding the structure a minimum of 40 feet back, with caissons, is not a feasible alternative. Again, the intent of this policy is to encourage, incentivize, and require blufftop property owners to evaluate rebuilding a new safe structure, rather than maintaining an existing structure in a hazardous location that requires alteration of the public bluffs."

Therefore, the LUP, as certified, provides opportunities for redevelopment of the blufftop parcels taking into consideration existing geologic constraints and hazardous conditions. Modifications to the building footprint and its foundation further inland on private property must be analyzed as a potentially feasible alternative once a seawall is permitted to protect an existing structure. If erosion continues, other options must be considered by the property owner as feasible alternatives to additional armoring and additional impacts to coastal resources. Careful review of improvements to an existing blufftop residence that already requires a bluff retention device to protect it from erosion is particularly important. Retention of development too close to the bluff edge can lead to further landform alteration and impacts to public resources. Improvements that increase the economic life of the structure in a non-conforming and hazardous location can also reduce the incentive to move the structure landward to reduce risk and the need for protection. Therefore, significant improvements that extend the life of the structure in its current location should be limited and if approved, the need for additional mitigation and/or modification to the existing seawall should be evaluated.

Provisions of Certified LUP - Protection of Existing Structures - Shoreline Armoring

Coastal Act Sections 30235 and 30253 acknowledge that seawalls, revetments, cliff retaining walls, groins and other such structural or "hard" methods designed to forestall erosion also alter natural landforms and natural shoreline processes. Accordingly, with the exception of coastal dependent uses, Section 30235 limits the construction of shoreline protective works to those required to protect existing structures or public beaches in danger from erosion. The Coastal Act provides these limitations because shoreline structures can have a variety of negative impacts on coastal resources including, but not limited to, adverse effects on sand supply, public access, coastal views, natural landforms, beach habitat and ecology and overall shoreline beach dynamics on and off site, including ultimately resulting in the loss of beach.

Section 30235 mandates that shoreline armoring must be "required" to protect the existing threatened structures. In other words, shoreline armoring shall only be permitted if it is the only feasible alternative capable of protecting the existing endangered structures.[3]

Coastal Act Sections 30210, 30211, 30212, 30212.5, and 30221 require that public access and use of the coast shall be maximized, that development shall not interfere with the public's right to access the coast and use of dry sand beaches, and that oceanfront land suitable for recreational activities shall be protected. As stated elsewhere in this report, the physical encroachment of a protective structure on the beach reduces the beach area available for public use and is therefore a significant adverse impact. Furthermore, when the back beach is fixed with a shoreline armoring device, passive erosion is halted and additional public beach area can no longer be created.

[3] Coastal Act Section 30108 defines feasibility as follows: "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

The LUP policies, as certified, are designed to guide development such that impacts from shoreline protection are avoided whenever possible, and that when shoreline protection is unavoidable, it is limited to the greatest extent feasible to lower bluff protection only. Also, the impacts from shoreline protection must always be fully mitigated. Furthermore, LUP policies, as certified, require that new development be sited in a location that will not require reliance on shoreline armoring.

On a bluff top property that does not have any form of shoreline armoring, Policy 4.47 would allow seacave/notch fill projects to be approved, even when an existing principal structure is *not* in imminent danger or meeting the standard for construction of a seawall. Such projects would function as preventative measures that, on the whole, will serve to minimize impacts to coastal resources.

In addition, as certified, LUP policies make it clear that once a lower seawall has been constructed, mid and upper bluff protection devices cannot be approved unless a detailed alternatives analysis determines that there are no feasible alternatives. Specifically, Policy 4.51 requires consideration of various alternatives, which include the planting of vegetation, control of surface water and site drainage, other non-beach and bluff face stabilization measures, and a smaller coastal structure. Another alternative is removal and relocation of all, or portions, of the affected structure. Under this alternative, if only the seaward most portion of the structure is threatened by upper bluff erosion, removal of the threatened portion would be considered a feasible alternative to additional armoring. An additional alternative includes relocating/rebuilding the structure further inland from the bluff edge, with caissons so the entire structure is stable. The intent of this policy is to encourage and require blufftop property owners to evaluate the potential for a safer structure in a more landward location, rather than maintaining an existing structure in a hazardous location that requires alteration of the public bluffs to provide protection in that location.

As certified, LUP Policies 4.47, 4.48, and 4.51 require that as a condition of approval for a bluff retention device (i.e. seacave/notch infill, lower seawall, upper bluff system), the applicant shall be subject to an encroachment removal agreement approved by the City along with the CDP authorization for the shoreline armoring device. In addition, Policy 4.52 requires that the device only be authorized for 20 years, at which time the property owner must assess the possibility of removal and a new CDP for retention of the device shall only be issued if it is still required to protect an existing structure, will avoid further alternation of the natural landform of the bluff, and adequate mitigation for impacts to public beach has been provided.

Duration of Shoreline Armoring Authorization

The City is proposing changes to the LUP policy that establishes the 20 year authorization period and reassessment requirement for bluff retention devices (Policy 4.52). The existing LUP policy, as certified, requires that an analysis be done at the end of the 20 year authorization period to determine the continued need for the device and the potential for removal, based on factors that include changed geologic site conditions relative to sea level rise, the age, condition, and economic life of the principal structure

on the bluff top and whether the principal structure was existing prior to the implementation of the Coastal Act. The City's proposed changes require an applicant to also analyze the need for repair and maintenance of the bluff retention device in addition to the possibility for removal. Further, the proposed policy would require that the analysis of the device after the 20 year authorization period be based on changed geologic site conditions relative to beach replenishment activities (specifically referencing an Army Corps project that has been approved by the Commission, but has not yet been implemented), while reference to sea level rise and whether the existing structure existed prior to the implementation of the Coastal Act has been removed. The City also proposes that the applicant only show that the device will "*minimize further alteration of the natural landform of the bluff*" in place of the current language that requires an applicant to show that the device will "*avoid further alteration of the natural landform of the bluff*." In addition, the City has amended multiple policies related to the 20 year authorization period for shoreline armoring devices to require that the timeline for mitigation and authorization begin on the building permit completion certification date instead of the date of CDP approval. The proposed change to the start date would delay the start of authorization lime limits and would also delay mitigation payments.

The Commission is suggesting modifications to the LUP policies that would tie authorization of the bluff retention device to the life of the structure requiring protection. The majority of the shoreline armoring in the City has been approved and constructed pursuant to a permit from the Coastal Commission. A typical condition of approval for a seawall permit addresses future response to erosion and requires the applicant to acknowledge that the Commission will consider removal of the structures, including portions of the home or the entire home, as preferred and practical alternatives to bluff and shoreline protective devices. Specifically, the special condition indicates that should additional protection be contemplated in the future, the applicant is required to submit an analysis of alternatives to bluff protective works that may be considered by the Commission, including relocation of the principal structure, relocation of portions of the structure that are threatened, structural underpinning, or other remedial measures identified to stabilize the residence that do not include additional bluff or shoreline protective devices. A sample of the Special Condition is included below and was excerpted from the 6-08-073/Cumming, Burgh & DiNoto Commission staff report for the construction of a seawall and geogrid structure below three homes at 365-371 Pacific Avenue in Solana Beach.

> *8. <u>Future Response to Erosion</u>. If in the future the permittees seek a coastal development permit to construct additional bluff or shoreline protective devices, the permittee will be required to include in the permit application information concerning alternatives to the proposed bluff or shoreline protection that will eliminate impacts to scenic visual resources, recreation and shoreline processes. Alternatives shall include, but not be limited to: relocation of all or portions of the principal structure that are threatened, structural underpinning, and other remedial measures capable of protecting the principal structure and providing reasonable use of the property, without constructing bluff or shoreline stabilization devices. The information concerning these alternatives must be sufficiently detailed to*

enable the Coastal Commission or the applicable certified local government to evaluate the feasibility of each alternative, and whether each alternative is capable of protecting existing structures that are in danger from erosion. No additional bluff or shoreline protective devices shall be constructed on the adjacent public bluff face above the approved seawall or on the beach in front of the proposed seawall unless the alternatives required above are demonstrated to be infeasible. No shoreline protective devices shall be constructed in order to protect ancillary improvements (patios, decks, fences, landscaping, etc.) located between the principal residential structures and the ocean.

In certain more recent CDP approvals, the Commission has required a fixed armoring authorization term, such as twenty years. The concept is based on addressing certain inherent uncertainties associated with the length of time shoreline protection might exist in any particular case without major repairs or replacement in a dynamic coastal environment, and to address the changing and somewhat uncertain nature of decisions related to shoreline armoring, such as the state of the art for design of such devices, sea level rise and other physical changes, legislative change, or new judicial determinations. For example, with respect to sea level rise and other physical changes, there is a growing body of evidence that there has been an increase in global temperature and that acceleration in the rate of sea level rise can be expected to accompany this increase in temperature (some shoreline experts have indicated that sea level could rise by as much as 5.5 feet by the year 2100)[4]. On the California coast the effect of a rise in sea level will be the landward migration of the intersection of the ocean with the shore, leading to a faster loss of the beach, as the beach is squeezed between the landward migrating ocean and the fixed backshore. This will expose the back bluff or seawall to more frequent wave attack, increasing the rate of erosion of unarmored bluffs and potentially reducing available usable beach area.

A sample of a previously applied Special Condition requiring that an applicant obtain an amendment within 20 years of approval of a seawall is included below and was excerpted from the staff report for CDP 6-09-033/Garber et. al. for the construction of a seawall below five homes at 211-231 Pacific Avenue in Solana Beach[5].

3. Extension of Seawall Authorization or Seawall Removal. Prior to the expiration of the twenty year authorization period for the permitted seawall, the property owners shall submit to the Commission an application for a coastal development permit amendment to either remove the seawall in its entirety, change or reduce its size or configuration, or extend the length of time the seawall is authorized. Provided a complete application is received before the 20-year permit expiration, the expiration date shall be

[4] The 2012 National Research Council's Report, *Sea Level Rise for the Coasts of California, Oregon and Washington: Past Present and Future*, is currently considered the best available science on sea-level rise for California. The NRC report predicts that for areas south of Cape Mendocino, sea level may increase between 16.56 and 65.76 inches between 2000 and 2100 (NRC, 2012).

[5] The Commission has approved three permits for shoreline armoring with an authorization duration of 20 years in the City of Solana Beach (Ref: CDP Nos. 6-09-033/Garber et. al.; 6-13-025/Koman et. al.; and 6-02-084-A3/Scism). Any changes to the 20 year authorization duration in these permits would need to be approved through a CDP amendment by the Commission.

automatically extended until the time the Commission acts on the application. Sufficient information shall accompany any amendment application to conform with the permit filing guidelines at the time and to allow the Commission to consider the following in review of the proposed permit amendment:

1) *An analysis, based on the best available science and updated standards, of beach erosion, wave run-up, sea level rise, inundation and flood hazards prepared by a licensed civil engineer with expertise in coastal engineering and a slope stability analysis, prepared by a licensed Certified Engineering Geologist and/or Geotechnical Engineer or Registered Civil Engineer with expertise in soils, in accordance with the procedures detailed in the Local Coastal Program (LCP), if certified or the City Zoning Code;*
2) *An evaluation of alternatives that will increase stability of the existing principal structure for its remaining life, or re-site new development to an inland location, such that further alteration of natural landforms and/or impact to adjacent tidelands or public trust lands is avoided;*
3) *An analysis of the condition of the existing seawall and any impacts it may be having on public access and recreation, scenic views, sand supplies, and other coastal resources;*
4) *An evaluation of the opportunities to remove or modify the existing seawall in a manner that would eliminate or reduce the identified impacts, taking into consideration the requirements of the LCP, if certified, and the protection required for remaining properties subject to this coastal development permit;*
5) *For amendment applications to extend the authorization period, a proposed mitigation program to address unavoidable impacts identified in subsection (3) above;*
6) *The surveyed location of all property lines and the mean high tide line by a licensed surveyor along with written evidence of full consent of any underlying land owner, including, but not limited to the City, State Parks, or State Lands Commission, of the proposed amendment application. If application materials indicate that development may impact or encroach on tidelands or public trust lands, written authorization from the underlying property owner and the State Lands Commission of the proposed amendment shall be required prior to issuance of the permit amendment to extend the authorization period.*

In August of 2013, the Commission approved a CDP for extensive shoreline armoring fronting an existing condominium complex in Pacifica (2-10-039/Land's End Associates), which required that the armoring only be authorized until the time that existing structures requiring armoring are redeveloped, no longer present, or no longer require armoring. The Commission also found that it was appropriate to require mitigation for the impacts of the armoring on public access and sand supply for a 20-year period and at the end of the 20-year period to require the applicant to obtain a CDP amendment to either remove the armoring or propose additional mitigation. The

aforementioned condition is as follows:

1. ***Duration of Armoring Approval.***

a. Authorization Expiration. *This CDP authorizes the armoring (consisting of the seawall, riprap toe protection, riprap wedges (at the upcoast and downcoast edges of the seawall), and the grade beam and caisson buried wall until the time when the currently existing structures requiring armoring are: (i) redeveloped as that term is defined in Special Condition 11; (ii) no longer present; or no longer require armoring, the Permittee shall submit a complete CDP amendment application to the Coastal Commission to remove the armoring.*

b. Modifications. *If, the Permittee applies for a CDP or an amendment to this permit to enlarge the armoring or to perform repair work affecting more than 50 percent of the armoring the Permittee shall provide additional mitigation for the impacts of the enlarged or reconstructed armoring on public views, public recreational access, shoreline processes, and all other affected coastal resources that have not already been mitigated through this permit.*

c. Amendment Required Proposing Mitigation for Retention of Armoring Beyond 20 Years. *If the Permittee intends to keep the armoring in place after August 15, 2033, the Permittee must submit a complete CDP amendment application prior to August 15, 2033 proposing mitigation for the coastal resource impacts associated with the retention of the armoring beyond 20 years (including, in relation to any potential modifications to the approved project desired by the Permittee at that time that may be part of such CDP application).*

The Commission is suggesting modifications to the proposed LUPA policies that require, in place of a fixed 20 year authorization period, that the timeframe for authorization of permits for new bluff retention devices, or alterations or expansion of existing devices, be as long as the structure requiring protection still exists or the structure no longer needs the protection for some reason[6]. This more fully conforms to section 30235 of the Coastal Act as the 20 year authorization period does not take into account situations where a property owner may receive approval of a new seawall to protect an existing structure in danger of erosion, and then demolishes and rebuilds that structure before the 20 year authorization period has ended. In such a situation, the seawall would have authorization to remain even though the existing structure it was designed to protect is no

[6] This authorization and the 20-year mitigation periods are in addition to the standard CDP permit condition which mandates that a CDP will expire if development has not commenced within 2 years of approval and that development shall be pursued in a diligent manner and completed in a reasonable period of time.

longer on-site, which would not be consistent with section 30235 of the Coastal Act, and would effectively make the seawall a legal non-conforming structure. Furthermore, the 20 year authorization period in the currently certified LUP doesn't specifically require removal of a seawall upon expiration of the 20 year period. In addition, while not necessarily a Chapter 3 issue, processing such applications would take significant staff time and resources away from other pending matters. Thus, the most supportable criteria for determining the authorization period of a seawall that is consistent with section 30235 is to tie the authorization period to the existing structure that requires protection by the seawall. Upon redevelopment of the property, the seawall would either be removed or, if removal is not appropriate for any reason, the terms of authorization of retention of the protective device would be reassessed through a new CDP which would address any rights to retention, and removal of the device in the future would remain a viable option. Therefore, the following findings support the suggested modifications to the shoreline armoring authorization period.

Section 30235 only authorizes shoreline protection devices when necessary to protect an existing structure in danger of erosion, and shoreline protective devices are no longer authorized by Section 30235 after the existing structures they protect are redeveloped, no longer present, or no longer require armoring. Although shoreline armoring in this case cannot be found consistent with all other applicable provisions of the Coastal Act, Coastal Act provision 30235 mandates that shoreline armoring shall be approved when required to protect existing structures if specified criteria are met.

The only applicable basis for the Commission to approve shoreline armoring that is otherwise inconsistent with the Coastal Act is when it is required to protect an existing structure in danger from erosion. If there was no existing structure in danger from erosion and the armoring was not required to protect it, the seawall would be denied. That a project satisfies the tests of Section 30235, and thereby must be authorized despite its other impacts that cannot be fully mitigated, therefore presumes the existence of a legally authorized existing structure that the armoring is required to protect.

Accordingly, one reason to limit the length of a shoreline protective device's development authorization is to ensure that the armoring being authorized by Section 30235 is only being authorized as long as it is required to protect a legally authorized existing structure. If an applicant must seek reauthorization of the armoring before the structure that it was constructed to protect is demolished or redeveloped, then Section 30235 instructs the Commission to approve the shoreline protective device if it is still required to protect an existing structure in danger of erosion. However, once the existing structure that the armoring is required to protect is demolished or redeveloped, the armoring is no longer authorized by the provisions contained in Section 30235 of the Coastal Act. Accordingly, if there is no existing structure in danger from erosion, then the Commission cannot approve an otherwise inconsistent shoreline protective device relying on the provisions of Section 30235 of the Coastal Act.

Another reason to limit the authorization of shoreline protective devices is to ensure that the Commission can properly implement Coastal Act Section 30253 together with Section 30235. If a landowner is seeking new development on a blufftop lot, Section

30253 requires that such development be sited and designed such that it will not require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. Sections 30235 and 30253 prohibit such armoring devices for new development and require new development to be sited and designed so that it does not require the construction of such armoring devices. These sections do not permit landowners to rely on such armoring devices when siting new structures on bluff tops and/or along shorelines. If a shoreline protective device exists in front of a lot, but is no longer required to protect the existing structure it was authorized to protect, it cannot accommodate future redevelopment of the site in the same location relying on the provisions of 30235. Otherwise, if a new structure is able to rely on shoreline armoring which is no longer required to protect an existing structure, then the new structure can be sited without a sufficient setback, perpetuating an unending construction/redevelopment loop that prevents proper siting and design of new development, as required by Section 30253. By limiting the length of development authorization of a new shoreline protective device to the existing structure it is required to protect, the Commission can more effectively apply Section 30253 when new development is proposed.

Suggested modifications by the Commission would require the property owner to provide mitigation for impacts, including, but not limited to, public access and sand supply, for 20-year periods. Mitigation reassessment for shoreline armoring devices would occur at the end of each 20-year mitigation period. Mitigation for impacts resulting from shoreline armoring devices, in part, calculates passive erosion and sand retention impacts, both of which are tied to the future rates of erosion and are time dependent. These impacts will continue to occur, though, for the full time that the approved armoring system is in place, including beyond twenty years if it continues to exist or be necessary to protect the existing endangered structure.

In siting new development, proposed setbacks attempt to anticipate future acceleration of erosion through using the highest historic erosion rate or by developing relationships between erosion and sea level. And, on an eroding coastline, if the actual erosion rate is lower than the predicted erosion rate, the result is only that the development will be safe from erosion for a longer time period than initially predicted. However, for shoreline armoring mitigation, the Commission has often based the fee calculations upon average or moderate historic erosion rates due to the typically shorter mitigation time period used. While the erosion rates currently used for mitigation calculations can be expected to provide a reasonable estimate of future erosion for the coming one or two decades, projections much farther into the future are far more uncertain; and the uncertainty concerning future erosion only increases with time. Using a time period of twenty years for the mitigation calculations ensures that the mitigation will cover the likely initial impacts from shoreline armoring devices, and then allows a recalculation of the impacts based on better knowledge of future erosion rates and associated impacts accruing to the armoring when the twenty years is up. Efforts to mitigate for longer time periods would require the use of much higher erosion rates and would bring a higher amount of uncertainty into a situation.

Suggested modifications require the property owner to submit a complete permit amendment application to propose mitigation for impacts attributable to shoreline armoring devices beyond the 20-year period upon which initial impact mitigation is based. And as such, additional mitigation will be required after the initial 20-year period. As modified, the policies would provide a way to address inherent uncertainties, including those related to the lifetime of development being protected by the armoring, changed circumstances and updated mitigation requirements (Suggested Modifications 9-11).

As indicated above, the Commission is suggesting modifications that would tie the length of authorization of the protective device to the bluff top structure the armoring is approved to protect, consistent with the requirements of Section 30235. In addition, suggested modifications add back sea level rise as an important parameter that must be analyzed. As discussed previously, a possible future scenario for Solana Beach if the entire shoreline is armored is that, as sea level rises, there may no longer be a public beach. In the future, it may no longer be possible to provide adequate mitigation for the impacts that shoreline armoring causes to public beaches. Thus, while future beach replenishment projects may allow the continued provision of public beach even to the point that additional shoreline protection is not needed, it may also be possible that future beach replenishment projects are not successful and the beach is no longer accessible to the public due to rising water levels. Thus, an evaluation of sea level rise is important for determining future mitigation for adverse impacts and as a factor in the retention analysis of shoreline armoring devices.

As amended by the City and through suggested modifications by the Commission, Policy 4.52 would read as follows:

> ***Policy 4.52****: All permits for bluff retention devices shall expire when the currently existing blufftop structure requiring protection is redeveloped (per definition of Bluff Top Redevelopment in the LUP), is no longer present, or no longer requires a protective device, whichever occurs first and a new CDP must be obtained. Prior to expiration of the permit, the bluff top property owner shall apply for a coastal development permit to remove, modify or retain the protective device. In addition, expansion and/or alteration of a legally permitted existing bluff retention device shall require a new CDP and be subject to the requirements of this policy.*
>
> *The CDP application shall include a re-assessment of need for the device, the need for any repair or maintenance of the device, and the potential for removal based on changed conditions. The CDP application shall include an evaluation of:*
>
> - *The age, condition and economic life of the existing principal structure;*
> - *changed geologic site conditions including but not limited to, changes relative to sea level rise, implementation of a long-term, large scale sand replenishment or shoreline restoration program; and*

- *any impact to coastal resources, including but not limited to public access and recreation.*

  The CDP shall include a condition requiring reassessment of the impacts of the device in 20-year mitigation periods pursuant to policies 4.48 and 4.51.

  No permit shall be issued for retention of a bluff retention device unless the City finds that the bluff retention device is still required to protect an existing principal structure in danger from erosion, that it will minimize further alteration of the natural landform of the bluff, and that adequate mitigation for coastal resource impacts, including but not limited to impacts to the public beach has been provided.

Existing Shoreline Armoring Devices

As stated previously, prior Commission approvals for many of the existing shoreline armoring devices in the City did not require applicants to provide adequate mitigation for the adverse impacts of armoring devices on coastal resources. Most, if not all, of the existing lower seawalls are located on publicly-owned land and adversely impact public access by decreasing the available beach area through direct encroachment and by halting passive erosion. Shoreline armoring devices also adversely impact coastal resources by trapping sand in the bluff that would otherwise reach the beach and adversely impact visual and ecological resources. The Commission has previously found that the loss of beach material (sand) and the loss of beach area are two separate concerns and that a beach is not simply a factor of the quantity of sandy beach material. Prior to the first public access and recreation mitigation fee required by the Commission in 2005, the Commission only required mitigation for the quantifiable sand supply impacts (Ref: 6-05-072/Las Brisas). However, the Commission has repeatedly found that the sand mitigation did not fully mitigate for the adverse impacts of a seawall on beach area because a one-time placement of a volume of sand cannot result in creation of beach area over the long term. Beginning in 2005, the Commission, on a statewide basis, was better able to quantify the more complex scope of physically encroaching on the public beach and fixing the back of the beach (Ref: 6-02-024/Ocean Harbor House). The Commission still finds that the coastal resource impacts associated with shoreline armoring remains incompletely assessed.

Additions and/or significant improvements to blufftop homes with existing armoring devices may extend the useful life of the homes indefinitely. In this scenario, if the addition or improvement did not qualify as redevelopment of the non-conforming homes, property owners could continue to enjoy the benefits of shoreline armoring devices, but may never adequately mitigate for the adverse impacts of these devices on coastal resources.

Policy 4.17, in the certified LUP, currently requires that all new development (including additions to existing bluff top structures) be set back a safe distance to eliminate the need for shoreline protection. In addition, upon application for new development (including additions) on lots protected by existing shoreline armoring, applicants are required to

prepare an analysis of the impacts that the existing shoreline armoring is having on coastal resources, along with consideration of the current site conditions (including the residential structure and any accessory improvements), and to identify opportunities to modify or replace the shoreline armoring to reduce or eliminate any adverse impacts on coastal resources not already mitigated by the property owner as a result of complying with prior permit conditions imposed by the Commission or, if applicable, the City in a prior permit action.

Additions of less than 50% of the existing floor area of a home and/or significant improvements to a home that affect less than 50% of a major structural component would not be considered redevelopment. Alterations to a home below the redevelopment threshold would not require the home to be brought fully into conformance with current LUP standards. Thus, the home would not be required to be relocated landward to a location that does not rely on shoreline armoring. However, an addition of any size and/or a significant improvement may result in an extension of the useful life of a bluff top home which relies on existing shoreline armoring for protection. Therefore, revisions are needed to Policy 4.17 to require that the geologic analysis evaluate options to mitigate any previously unmitigated impacts of existing shoreline armoring devices and identify options to modify, remove, or replace shoreline armoring at the time of any addition to a bluff top home or at the time of a significant alteration to a bluff top home. In addition, existing armoring devices that are subject to re-evaluation pursuant to Policy 4.17 would be subject to the policies of the LUP that require the authorization period for shoreline armoring be tied to the life of the structure requiring protection, re-assessment of mitigation at 20 year intervals, and an assessment of the continued need for the shoreline armoring and any modifications that could reduce the armoring device's impact on coastal resources.

As modified, Policy 4.17 is consistent with the public access policies of the Coastal Act, which require that development not interfere with the public's constitutional right of access the state's navigable waters, including the ocean shoreline. Protecting this constitutional right to access the shoreline in the city can be achieved, in part, through the provision of adequate mitigation for all impacts of existing and future shoreline armoring devices, the systematic removal of existing armoring devices and by limiting approval of future armoring devices through the movement of the line of bluff top development landward away from the eroding coastal bluffs so that this development does not require shoreline armoring devices that impede the public's right access the shoreline. Furthermore, the right of private property owners to protect existing structures does not compel the City to approve the construction or retention of private development, in the form of shoreline armoring, on public property if the rights of the public to access public trust lands cannot also be protected.

Suggested Modifications would also require that Policy 4.18 not be deleted, as proposed by the City, this policy, along with Policy 4.52, would affirm that if an existing shoreline armoring device is expanded or altered, a CDP is required and an assessment must be done to determine if the device is still required to protect the structure the device was permitted to protect, and/or if it should be removed, modified or retained. There may be circumstances where existing shoreline armoring cannot be immediately removed when

no longer needed to protect the threatened structure that it was constructed to protect. For instance, legal rights to retention may still exist or existing shoreline armoring may still be needed to stabilize an adjacent property, in which case, authorization of the device would be tied to the life of the structure requiring protection. It is also possible that removal of existing shoreline armoring may only feasibly be undertaken in a comprehensive manner as a multi-property project. As modified, it is clear that removal of existing seawalls remains a viable option in the future to assure the use of the entire public beach is not lost as a result of continued sea level rise and the shoreline armoring that protects private bluff top structures

A suggested modification has been made by the Commission to add text stating "encroachment/removal agreement" to the LUP in all places where "encroachment/removal agreement" or "encroachment agreement" is used. This change addresses a concern by the City that encroachment agreements are only required where private shoreline armoring devices are constructed on public property or in the public right-of-way, while a removal agreement can be required for where private shoreline armoring devices are constructed on private property (Suggested Modification 5).

Seacave/Notch Infills

Subsequent to the certification of the City's LUP, it became apparent that some uncertainty remained regarding the intent of the LUP policies related to seacave and notch infills. Seacave and notch infills can reduce the potential for a significant bluff failure and allow the City, and the region as a whole, more time to pursue other non-structural methods, such as beach replenishment, to protect the bluffs and/or moving the line of bluff top development landward away from the bluff edge in order to delay the need for more substantial shoreline protection.

The intent for the seacave/notch infill approach is to allow the bluff to continue to erode landward and the clean sands lens may still become exposed. Once the clean sands lens is exposed, it is typical that a higher seawall will be needed to encapsulate the clean sands lens. The Commission recognizes that this may be the case for some areas. However, there are areas along the shoreline of Solana Beach where a seacave/notch infill has delayed the need for a seawall for many years. Delaying the construction of a seawall allows the bluff to erode and creates additional beach area that is available for public use.

The certified LUP allows seacave/notch infills to be approved when the primary structure on a bluff top lot is not in danger from erosion. Figure No. 1 in Appendix B of the City's LUP depicts a seawall and is only applicable in situations where the blufftop primary structure is imminently threatened (i.e. where the "Factor of Safety [is] near 1.0") (Exhibit 7). Suggested modifications establish that two new figures shall be created for options for shoreline protection in Appendix B of the LUP. ~~A suggested modification to this LUP amendment requires that~~ The first new figure ~~Figure 1A~~ shall ~~be added to the LUP to depict the~~ a seacave/notch infill option that can be constructed pre-emptively, when the Factor of Safety is not near 1.0 and the bluff top structure is not imminently threatened. ~~Figure 1A~~Exhibit 6, which was provided by the City, depicts a seacave/notch infill with erodible concrete and a higher strength concrete face on the seaward portion of

the infill ~~(Exhibit 6)~~. The City contends that the high strength concrete face will allow the infill to be colored and textured to better blend in with the natural bluff and that the high strength concrete face can be physically removed as the adjacent bluff erodes landward. Due to the fact that the high strength concrete face will not naturally erode as a result of wave action, it performs the same as a seawall and will fix the back of the beach. The installation of a high strength concrete face would result in a very challenging enforcement situation and would most likely result in the infill material encroaching onto and adversely impacting public beach area. Furthermore, it is likely that property owners would be resistant to physically remove the high strength concrete face once it was installed for fear of destabilizing the bluff adjacent to and above the infill.

Suggested modifications require that ~~Figure 1A be modified to~~ a new figure be added to the LUP that consists solely of erodible concrete and that does not include a high strength concrete face on the seaward portion of the infill. A seacave/notch infill that uses only erodible concrete may be more difficult to treat aesthetically than an infill with a higher strength concrete face, but it will permit the bluff to continue to erode landward resulting in the creation of additional beach area, when maintained to do so. While an erodible concrete seacave/notch infill may require the need for increased monitoring and maintenance by the property owner to ensure it is functioning as designed, than would be otherwise required with a structural armoring device, the benefits of not fixing the back of the beach, while at the same time forestalling a catastrophic bluff collapse and the possible exposure of the clean sand lens make erodible concrete seacave/notch infills worthwhile.

The Surfrider Foundation has raised concerns that past seacave/notch infill projects approved by the Commission have not eroded landward as per the design intent and now create adverse impacts to coastal resources. The failure of past seacave/notch infill projects to erode landward likely resulted from the use of full strength concrete or using a concrete mix that, while not as strong as full strength concrete, did not have a comparable erosion rate to the surrounding bluffs. The most recent large stand-alone seacave infill project in Solana Beach was approved by Commission in 2002 (CDP #6-00-066/Pierce & Monroe). Since that time, more is known about erodible concrete and it can be better designed, such that it erodes at a more consistent rate as the adjacent natural bluff.

Additional suggested modifications clarify that erodible concrete seacave/notch infills are not subject to the sand supply mitigation, public access and recreation mitigation, encroachment removal agreement, or authorization timeline policies of the LUP. The construction of a seacave/notch infill will help to prevent catastrophic bluff failure, but will still allow the bluff to erode landward, when maintained to do so. Seacave/notch infills are designed to erode at the same rate as the adjacent natural bluff, thus there will be no impacts to sand supply or to public access and recreation. Furthermore, since seacave/notch infills are designed to erode at the same rate as the natural bluff, if they function as designed, there will not be a need to physically remove the entire fill, and thus encroachment removal agreements and time limits for authorization are not needed.

Exhibit 6 shall also be modified to depict an erodible concrete infill with a higher strength concrete face and added to the LUP as t~~T~~he second new figure ~~added to~~in Appendix B ~~of the LUP through suggested modifications shall depict an erodible concrete infill with a higher strength concrete face~~. This figure shall serve as an alternative preferred lower seawall solution where the clean sands lens is not yet exposed. The notes on the new figure shall closely match the requirements for the existing lower seawall preferred alternative (shown in Exhibit 7). Specifically, notes shall be added to require a Factor of Safety near 1.0 to ensure that this option is only approved when a legally permitted structure is imminently threatened by erosion. Unlike the erodible concrete seacave/notch infill alternative, the construction of a high strength concrete face will fix the location of the back of the beach and therefore adequate mitigation for its impacts to shoreline sand supply, public access and recreation and any other relevant coastal resource impacted by the shoreline armoring structure must be provided. In addition, this alternative is subject to the same encroachment removal agreement and authorization timeline policies of the LUP that are applied to the other lower seawall alternative.

The modifications suggested to the description of Seacave/Notch Infill and the related policy do not change the intent of the certified LUP. The changes are proposed to provide additional clarity regarding the options available to address coastal bluff stability (Suggested Modifications 2-4).

Use of Recreation Mitigation fees for Beach Replenishment

The City's certified Land Use Plan currently provides that Sand Mitigation Fees must be expended for sand replenishment and potentially retention, and that the Public Recreation Fee must be expended for public access and public recreation improvements. As proposed by the City in this LUP amendment, the Sand Mitigation fees will be allowed to be used for public access and public recreation improvements, where an analysis does not identify any 'near-term' sand replenishment projects. In addition, the City proposes that the Public Recreation Fee will be available for sand replenishment projects, where an analysis does not identify any 'near-term' public recreation or public access projects.

In its previous approval of the City's LUP, the Commission found that the sand mitigation fee is specifically designed to offset the impacts to sand supply that result from the presence of shoreline protective devices and that the public recreation fee is designed to capture impacts to recreation that are not captured by the sand mitigation fee, such as the degradation of the visual experience that can repel visitors. The Commission further found that if the public recreational fee were used to promote projects that did not enhance the recreational experience of the public and if the sand supply fee was used for something other than sand replenishment, the impacts to sand supply and public access and recreation as a result of shoreline armoring would not be adequately mitigated consistent with Chapter 3.

However, the Commission also recognizes that beach sand replenishment projects can provide an improved public access and recreational experience for beach goers and that public access and recreation improvements also have the potential to at least partially

mitigate for a loss of sand on public beaches. Therefore, Commission staff recommends that the Commission support the use of sand supply and public access and recreation fees for secondary priority uses, when a 'near-term' first priority project is not available. Although no definition for 'near-term' is provided by the City, the funds can only be released for secondary priority projects upon written approval of the Executive Director of the Commission. Per the City's proposal, a thorough analysis will be required to ensure no 'near-term' projects are available. Examples of 'near-term' public access and recreation projects could include public stairway replacement and repairs, parkland acquisition in the vicinity of the coastal bluffs and beaches, restrooms, and even the potential acquisition of bluff top homes. The City also proposes to amend the LUP to allow project applicants to fund a specific public access/recreation project in lieu of paying mitigation fees. The proposed amendments will likely allow the City and the Commission greater leeway to capitalize on future opportunities to improve the public beach experience. The application of these policies will be further detailed when the City submits its LCP implementation plan for Commission review.

Definitions

The definitions section of the LUP mainly covers topics and policies relating to shoreline development. 'Bluff Top Redevelopment', as currently defined in the City's certified LCP, is intended to identify and prohibit redevelopment projects that essentially consist of rebuilding existing structures in hazardous, non-conforming locations, unless the entire structure is brought into conformance. The definition allows a reasonable amount of changes to an existing structure, including up to a 50% increase in the size of the structure, but would not allow the familiar practice of stripping a house to the studs, or gutting the entire interior, or demolishing everything but one wall, and still characterizing the structure as "existing," thereby allowing the unlimited perpetuation of a non-conforming structure.

As a part of this LUP amendment, the City is proposing to modify the definition of 'Bluff Top Redevelopment' to remove reference to interior load-bearing walls and instead to focus on major structural elements of the home. These major structural elements would include exterior walls, the structural components of the floor and roof, and the foundation of an existing home. The City has also proposed language to clarify that changes to major structural elements are not additive between individual elements, while alterations to individual major structural element are cumulative. The intent of this clarification is that if for example, an applicant proposed to modify 40% of the exterior walls and 30% of the roof structure; this would not be considered redevelopment because it relates to two different major structural components. However, if the applicant were to come back for a subsequent CDP to modify an additional 10% of the exterior walls or an additional 20% of the roof structure, the project would be considered redevelopment because it would result in a cumulative alteration to more than 50% of a major structural component.

The Commission supports the City's proposed changes to the definition of 'Bluff Top Redevelopment', however some changes are required for clarification. Suggested modifications clarify that alterations are cumulative for individual major structural

components and that additions are also cumulative over time. Such that, an initial 25% addition would not be considered redevelopment, however, if in the future a subsequent 25% addition was proposed, then that would result in a cumulative 50% increase in floor area and would thus constitute redevelopment (Suggested Modification 12).

The City is proposing to add a definition for 'Cantilever' to the LUP. As proposed, a projecting or overhanging structure of up to 10 feet in depth would be allowed to the seaward side of a bluff top home, provided that all foundation footings and structural supports for the cantilevered structure are located landward of the geologic setback line/rear yard setback. The Commission supports the City's proposed 'Cantilever' addition; however, a suggested modification replaces the term "rear yard setback" with "bluff edge setback (minimum 40 feet)" in order to clarify the definition and be consistent with the certified LUP (Suggested Modification 13).

2. Public Access/Public Recreation

a. Plan Summary. Chapter two of the certified LUP addresses the many forms of public access to the shoreline, including vertical and lateral access.

b. Applicable Coastal Act Policies. The following Coastal Act provisions and are particularly relevant to promoting coastal access by requiring adequate public access to the beach and by requiring that oceanfront land suitable for recreational use be protected for recreational use and development:

Section 30210

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

Section 30211

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

(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 accessways 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. […]

Section 30212.5

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 30221

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

c. Conformity with Chapter 3 Policies.

Shoreline Armoring/Public Access and Recreation

As cited above, the Coastal Act has numerous policies related to the provision and protection of public access and recreation opportunities. As such, many categories of development are affected by and must ensure that public access and recreation are not adversely impacted. Although the above discussion of the City's beach and bluff policies concentrated on the inconsistencies with Sections 30235 and 30253, there are a number of adverse impacts to public access and recreation associated with the construction and retention of shoreline protection. The natural shoreline processes referenced in Section 30235, such as the formation and retention of sandy beaches, can be significantly altered by construction of a seawall, since bluff retreat is one of several ways that beach area and beach quality sand is added to the shoreline. This retreat is a natural process resulting from many different factors such as erosion by wave action causing cave formation, enlargement and eventual collapse, saturation of the bluff soil from ground water causing the bluff to slough off and natural bluff deterioration. When a seawall is constructed on the beach at the toe of the bluff, it directly impedes these natural processes, reducing the amount of sand available for access and recreation, inconsistent with the above-cited policies. The physical encroachment of a protective structure on the beach also reduces the beach area available for public use and is therefore a significant adverse impact. Furthermore, when the back beach is fixed with a shoreline armoring device, passive erosion is halted and additional public beach area can no longer be created. This is particularly true given the existing beach profiles and relatively narrow beach in Solana Beach.

Previous sections of this report have thoroughly discussed the impacts of seawalls on public access. Therefore, this section will address another concern about the LUP public access and recreation policies, private stairways on the bluff face and beach. Policies

relating to private bluff stairways are contained within in Chapter 2 (Public Access and Recreation) of the certified LUP.

Private Stairways

There are three existing private stairways that all serve bluff top condominium complexes (Exhibit 10). The private stairways are located on the bluff fronting the Seascape Shores, Seascape 1, and Del Mar Beach Club condominium complexes. In the City of Solana Beach, the coastal bluffs are in private ownership south of Fletcher Cove and under public ownership north of Fletcher Cove. All the private bluff stairways in the City are located south of Fletcher Cove and are thus located on privately owned bluffs. However, portions of the three existing stairways are also located on the beach, which as described below is a public resource. As stated previously, the mean high tide line is most likely at the toe of the bluff for the entirety of the City of Solana Beach. In addition, previous findings by the Coastal Commission (CDP 6-04-092) and draft surveys by the California State Lands Commission show that the mean high tide line is at the toe of the bluff fronting Seascape Shores. In 1983, the Coastal Commission required that Seascape 1 record an offer to dedicate (OTD) for a lateral access easement for public access and passive recreational use along the shoreline seaward of the toe and face of the seawall. This lateral access OTD was never recorded by Seascape 1 and is currently in violation of this condition. However, Seascape 1 is actively working with the Commission to record the required lateral access OTD. The Del Mar Beach Club recorded a lateral access deed restriction in 1980 at the toe of the bluff, which was required by the San Diego Coast Regional Commission pursuant to CDP F4051. Thus, at least a portion of all three of the existing private stairways on the beach and bluff in the City of Solana Beach are located on public property (Seascape Shores) or on private property subject to a public access easement or public access deed restriction (Seascape 1 and Del Mar Beach Club).

The LUP, as certified, prohibits construction of new private beach accessways on the bluff face. As proposed, the City is acknowledging the potential for conversion of private access to public access in the event redevelopment of the stairways is proposed in the future. In order to ensure that the public access policies in the LUP are consistent with Coastal Act provisions 30210, 30211, 30212, 30212.5, and 30221 and that adequate public access to the beach and that oceanfront land suitable for recreational use is protected for recreational use and development, the Commission is suggesting modifications to Policy 2.60.5 to ensure that all of the private stairways which encroach on public beach area are subject to the requirements of the LUP to convert to public stairways if the stairways are replaced or redeveloped in the future (Suggested Modifications 1).

3. Visual Resources

a. Plan Summary. The suggested modifications described in the above discussion on the Chapter 4 Hazards and Shoreline/Bluff Development policies have been designed to limit the construction of shoreline protective devices and to ensure that the devices are removed, as feasible, if they are no longer needed to protect the existing

principal structure that they were built to protect, which will help to protect the scenic and visual qualities of the natural bluffs.

b. Applicable Coastal Act Policies

Section 30251

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

Section 30253 (5) (cited above)

Section 30251 of the Coastal Act provides for the protection of scenic coastal areas and the enhancement of visual resources. Section 30253(5) requires that popular visitor destination points for recreational uses be protected. Because shoreline armoring and exposed residential caisson systems have the potential to visually degrade the bluffs and alter natural landforms, the previously identified suggested modifications are required in order to find this LUP amendment consistent with the Coastal Act. Limiting the authorization period for shoreline armoring to the life of the structure the armoring is approved to protect provides for the opportunity to remove shoreline armoring when it no longer serves its intended purpose and can reduce adverse visual impacts to the natural bluffs.

In addition, the LUP only requires hydroseeding of the bluff following construction of a mid and upper bluff geogrid structure. It has been the experience of the Commission that when the mid and upper coastal bluff is reconstructed with a geogrid structure, hydroseeding alone is not an effective method to vegetate the bluff. Geogrid structures approved in the past that were hydroseeded have resulted in what appears to be flat, barren unnatural surfaces on the bluff face. Staff is recommending that, consistent with standard Commission practice on CDPs, container planting be used in addition to hydroseeding of coastal bluffs following construction of mid and upper bluff geogrid structures (Suggested Modification 6). Therefore, as modified, the LUP can be found consistent with the visual protection policies of the Coastal Act.

4. Conclusion

In summary, the LUP amendment, as proposed, is inconsistent with Chapter 3 of the Coastal Act because it does not provide clear direction in regards to various aspects of

shoreline armoring structures and development on the coastal bluff and bluff top properties. The proposed LUP amendment is deficient in several critical policy areas that affect priority public access, visual resources, and alteration of the natural landform of the coastal bluffs. The proposed modifications are necessary to address and resolve the identified policy conflicts. Therefore, as modified, the Commission finds the LUP amendment does conform to the Chapter 3 policies of the Coastal Act and the land use plan may be approved.

PART V. CONSISTENCY WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Section 21080.9 of the California Environmental Quality Act (CEQA) exempts local government from the requirement of preparing an environmental impact report (EIR) in connection with its local coastal program. The Commission's LCP review and approval program has been found by the Resources Agency to be functionally equivalent to the EIR process. Thus, under CEQA Section 21080.5, the Commission is relieved of the responsibility to prepare an EIR for each LCP.

Nevertheless, the Commission is required in an LCP submittal to find that the LCP does conform with CEQA provisions. The proposed City of Solana Beach LUPA is not consistent with the hazard, visual protection, natural resource protection, and new development policies of the Coastal Act. Suggested modifications have been added as described and listed above. If modified as suggested, no impacts to coastal resources are expected to result from the amendment.

Any specific impacts associated with individual development projects would be assessed through the environmental review process, and, an individual project's compliance with CEQA would be assured. Therefore, the Commission finds that no significant immitigable environmental impacts under the meaning of CEQA will result from the approval of the proposed LCP amendment as modified.

Introduction to the Proposed Amendment to the Solana Beach Local Coastal Program (LCP) Land Use Plan (LUP)

At a public hearing of the Solana Beach City Council on February 27, 2013 the City Council adopted the California Coastal Commission (CCC) modified/approved Local Coastal Program (LCP) Land Use Plan (LUP) under Solana Beach City Council Resolution 2013-018. The City's LUP incorporates all of the CCC-staff Suggested Modifications approved by the CCC.

At the February 27th, 2013 public hearing, the City Council also directed City Staff to begin preparing a Land Use Plan Amendment (LUPA) to modify some of the key provisions in the LUP relating primarily to bluff top development and shoreline protection. This LUPA was developed in conjunction with CCC staff and interested stakeholders and is expected to be issued for a six-week public review and comment period beginning on March 28, 2013 and ending on May 10, 2013. Following the conclusion of the LUPA public review period and a public hearing before the Solana Beach City Council, the LUPA was submitted to the CCC for processing and formal consideration at a Commission meeting originally scheduled for October 2013.

Solana Beach City Council Resolution 2013-108 was adopted on September 12, 2013, formally expressing the intent of the City Council in providing the City Manager with the explicit authority to amend, change, delete or otherwise modify the LUP text and policies targeted for modification in the Council approved LUPA. This updated LUPA reflects the current proposed amendments to the Certified LUP as revised on October 23, 2013.

The following revised text, policies and definitions constitute the Proposed Solana Beach Draft LUPA and contain substantive and non-substantive changes, additions and deletions. This Proposed LUP Amendment should be regarded as a draft document for consideration by the City Council and the public. There may be further revisions to this LUPA based on: (1) ongoing coordination and input from the stakeholders; (2) anticipated ongoing input from staff from the California Coastal Commission (CCC); and (3) direction provided by the City Council at a future public hearing.

EXHIBIT #1
Proposed LUPA Amendment
LCPA # SOL-MAJ-1-13
California Coastal Commission

Chapter 1 – Proposed Revisions
Chapter 2, Page 10: However, conditions do change over time, and future projects must be evaluated individually to determine the appropriate and feasible mitigation for shoreline protection projects based on any changed physical or regulatory conditions.
Chapter 2 – Proposed Revisions
Policy 2.4: ~~New development shall minimize impacts to public access along the shoreline and inland trails.~~ The City shall assure that the recreational needs resulting from any proposed development will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition at three acres per 1000 population, and/or development plans with the provision of onsite recreational facilities to serve new development.
Policy 2.7: New development shall be sited and designed to avoid impacts to public access and recreation along the shoreline and trails. If there is no feasible alternative that can eliminate or avoid all access impacts, then the feasible alternative that would result in the least significant adverse impact shall be required. Some impacts may be mitigated through the dedication of an access or trail easement where the project site encompasses an LCP mapped access or trail alignment, where the City, County, State, or other public agency has identified a trail used by the public, or where prescriptive rights exist. Mitigation measures required for impacts to public access and recreational opportunities shall be implemented prior to, or concurrent with construction of the approved development.
Policy 2.60: No new private beach stairways shall be constructed, and private beach stairways shall be phased out at the end of the economic life of the stairways. Existing permitted or private beach stairways constructed prior to the Coastal Act may be maintained in good condition, with a CDP where required, but shall not be expanded in size or function. Routine repair and maintenance shall not include the replacement of the stairway or any significant portion of greater than 50% ~~-~~of the stairway cumulatively over time from the date of the LUP certification. ~~As feasible, private beach accessways shall be phased out or converted to public accessways.~~
Policy 2.60.5: Upon application for a permit for the replacement of a private beach stairway or replacement of greater than 50% thereof, private beach accessways may be converted to public accessways where feasible and where public access can be reasonably provided. The condition to convert the stairway to a public stairway may only be applied where all or a portion of the stairway utilizes public land or a public access easement.
Chapter 4 – Proposed Revisions
Chapter 4, Page 11: It is essential that the implementation of the programs recommended herein, and achievement of the goals set forth herein, be balanced between public and private interests. The City is committed to implementing the above stated goals and strategies of the LCP ~~including, without limitation, replenishment and retention of beach sand. Sand Mitigation Fees may be expended for sand replenishment and retention projects, and Public/Recreation Fees may be expended for public access and public recreation improvements~~.

Chapter 4, Page 12:

In compliance with the Coastal Act, the goal of the LCP is to limit bluff retention devices on the public bluffs and beach area while protecting public and private property rights to the extent required by law and the health, safety, and welfare of residents and the public. The City's shoreline has largely been built out, and many of the existing structures located along the City's blufftops were built in a location that is now considered at risk from shoreline erosion. Thus, some amount of lower bluff protection has been and will continue to be unavoidable to protect existing structures in danger from erosion pursuant to Section 30235 of the Coastal Act. However, the LCP policies acknowledge that modifications to the building footprint and its foundation further inland on private property ~~will be considered feasible~~ must be analyzed as ~~a~~an potentially feasible alternatives to avoid additional mid and upper bluff stabilization and alteration of the natural landform on public property to protect private development. Such stabilization measures can have particularly extensive adverse impacts on the natural bluff landform and the scenic quality of the shoreline even beyond those associated with lower bluff protection. In all cases, impacts from these devices on public access, recreation, scenic resources and sand supply must be mitigated.

For all new development, the LCP requires that the development be designed so that it will neither be subject to nor contribute to bluff instability, and is sited to not require construction of protective devices that would alter the natural landforms of the bluffs.

Chapter 4, Page 134:

• **Upper Bluff Repair** (See Appendix B Figure 4) – This repair is used where there is a pre-existing lower bluff seawall and/or infill/bluff repair and shall only be used when there is a need to stabilize the upper bluff terrace deposits to provide structural protection due to upper bluff failures or extreme erosion. When feasible, the building footprint and foundation should be moved inland and the bluffs left in a natural state. The repair is much like the upper bluff stabilization described in (Preferred Solution #3.) It should ~~and~~ take~~in~~ into account lateral migration of erosion from adjacent properties, which would involve benching and placing erodible concrete between the clean sand lens and the bluff face to assure that the clean sand erosion does not undermine the stability of the upper bluff and bluff top principal structure. The slope is then rebuilt and reinforced to create an adequate safety factor to protect the upper bluff structure.

Chapter 4, Page 143:

The City's preference for protecting existing principal structures in danger from erosion is relocating/rebuilding the principal structure on the site to a location that is stable per ~~LUP~~ Policy 4.24. If all feasible alternatives to mid and upper bluff protection have been excluded, then the following types of upper bluff retention systems may be utilized with a lower seawall when collapse of the mid and upper bluff threatens an existing principal structure:~~.~~

~~The following describes types of the City's preferred upper bluff retention systems that may be utilized with a lower seawall when collapse of the mid and upper bluff threatens an existing principal structure:~~

Policy 4.14: Existing, lawfully established structures that are located between the sea and the

first public road paralleling the sea (or lagoon) built prior to the adopted date of the LUP that do not conform to the provisions of the LCP shall be considered legal non-conforming structures. Such structures may be maintained and repaired, as long as the improvements do not increase the size or degree of non-conformity. ~~Minor a~~Additions and improvements to such structures that are not considered Bluff Top Redevelopment, as defined herein, may be permitted provided that such additions or improvements themselves comply with the current policies and standards of the LCP. Complete ~~D~~demolition and reconstruction or Bluff Top Redevelopment is not permitted unless the entire structure is brought into conformance with the policies and standards of the LCP. See also Policy 5.45 which addresses non-Bluff Properties.

~~**Policy 4.18:** A legally permitted bluff retention device shall not be factored into setback calculations. Expansion and/or alteration of a legally permitted bluff retention device shall include a reassessment of the need for the shoreline protective device and any modifications warranted to the protective device to eliminate or reduce any adverse impacts it has on coastal resources or public access, including but not limited to, a condition for a reassessment and reauthorization of the modified device in 20 years.~~

Policy 4.234: Where adherence to the LCP policies on geologic setbacks and other development standards would preclude construction of a new primary residence on a Bluff Top Property, even with reductions in the front yard setback and parking standards, the Bluff Top ~~d~~Development project shall be reviewed as a site-specific LCP Amendment to allow the minimum development necessary to avoid a taking of private property for public use without just compensation.

~~**Policy 4.38:** As part of the LCP Local Implementation Plan (LIP), the City of Solana Beach will establish a two-tiered permit application process to distinguish between projects that may be processed administratively by the City and those requiring discretionary actions(s) by the City. Projects that cannot be considered minor and projects located within the "appealable zone" will require a public hearing and will be treated as discretionary actions.~~

Policy 4.369: Establish a Shoreline ~~District~~ Account which will serve as the primary account where all funds generated pursuant to the Hazards & Shoreline/Bluff Development Chapter of the LUP will be held. The City should invest the Shoreline ~~District~~ Account funds prudently and expend them for purposes outlined in the LCP including, without limitation:

- Sand replenishment and retention studies and projects;
- Updating the October 2010 MHTL Survey;
- Preparation of other shoreline surveys and monitoring programs;
- Opportunistic beach nourishment programs and development of stockpile locations;
- Repair and maintenance of bluff retention devices subject to reimbursement by the affected non-compliant bluff property owners;
- Public recreation improvements;
- Repair and replacement of beach access infrastructure;
- Insurance premiums; and
- Shoreline related litigation.

~~Sand Mitigation Fees must be expended for sand replenishment and potentially retention.~~

~~Recreation Fees must be expended for public access and public recreation improvements.~~
The City may use the funds in the Shoreline Account, subject to the restrictions of any terms of the funding sources, to pay for projects such as beach sand replenishment and retention structures, public recreation and public beach access improvement projects, feasibility and impact studies, operating expenses, insurance, and litigation; and to pay to conduct surveys and monitoring programs.

~~**Policy 438:** As part of the LCP Local Implementation Plan (LIP), the City of Solana Beach will establish a two tiered permit application process to distinguish between projects that may be processed administratively by the City and those requiring discretionary actions(s) by the City. Projects that cannot be considered minor and projects located within the "appealable zone" will require a public hearing and will be treated as discretionary actions.~~

~~**Policy 4.42:** Ensure the private and public interest in protecting and preserving private property rights under the state and federal Constitutions, the Coastal Act, and local ordinances, such that regulations are not overreaching and no private owner is denied reasonable use of his, her or its bluff property. In accordance with Public Resources Code Section 30010, this Policy is not intended to increase or decrease the rights of any owner of property under the Constitution of the State of California or the United States.~~

Policy 4.479: The City has adopted preferred bluff retention solutions (see Appendix B) to streamline and expedite the City permit process for bluff retention devices. The preferred bluff retention solutions are designed to meet the following goals and objectives:

1. Locate bluff retention devices as far landward as feasible;
2. Minimize alteration of the bluff face;
3. Minimize visual impacts from public viewing areas;
4. Minimize impacts to adjacent properties including public bluffs and beach areas; and
5. Conduct annual visual inspection and maintenance as needed.

The bluff property owner's licensed Civil or Geotechnical Engineer must examine the device for use in the specific location and take responsibility for the design as the Engineer of Record.

The Bluff Property Owner shall arrange for and pay the costs of:

1. The licensed Geotechnical or Civil Engineer;
2. The bluff retention device;
3. A bond to ensure completion of the bluff retention device;
4. Appropriate mitigation; and
5. All necessary repairs, maintenance, and if needed removal.

Applicants who seek permits to install a preferred bluff retention solution can do so on a streamlined basis, relying on previously approved standards and designs, and shall receive expedited processing from the City. As technology develops, the City will consider other preferred bluff retention solutions that meet the goals and policies of the LCP, as an amendment to the LUP or within the LIP.

Applications for coastal development permits for all bluff retention devices where any portion of which will be sited seaward of the MHTL, shall be submitted first to the City for approval of a major use permit and then to the CCC for a coastal development permit. The CCC has original jurisdiction for the portion of the bluff retention device that will be sited seaward of the MHTL. Such developments shall be subject to this LCP for the portions within the City's jurisdiction. Chapter 3 of the Coastal Act will be the standard of review for the portion within the CCC's jurisdiction. For beachfront development that will be subject to wave action periodically, unless the State Lands Commission determines that there is no evidence that the proposed development will encroach on tidelands or other public trust interests, the City shall reject the application on the grounds that it is within the original permit jurisdiction of the CCC and shall direct the applicant to file his or her application with the CCC.

Policy 4.4752: A Seacave/Notch Infill shall be approved only if all the findings set forth below can be made and the stated criteria satisfied. The permit shall be valid for a period of 20 years commencing with the ~~date of CDP approval~~ building permit completion certification date and subject to an encroachment removal agreement approved by the City.

A. Based upon the advice and recommendation of a licensed Geotechnical or Civil Engineer, the City makes the findings set forth below:

1. The Seacave/Notch Infill is more likely than not to delay the need for a larger coastal structure or upper bluff retention structure, that would, in the foreseeable future, be necessary to protect and existing principal structure, City facility, and/or City infrastructure, from danger of erosion. Taking into consideration any applicable conditions of previous permit approvals for development at the subject site, a determination must be made based on a detailed alternatives analysis that none of the following alternatives to the coastal structure are currently feasible, including:
   - Controls of surface water and site drainage;
   - A smaller coastal structure; or
   - Other non-beach and bluff face stabilizing measures, taking into account impacts on the near and long term integrity and appearance of the natural bluff face, and contiguous bluff properties.

2. The bluff property owner did not create the necessity for the Seacave/Notch Infill by unreasonably failing to implement generally accepted erosion and drainage control measures, such as reasonable management of surface drainage, plantings and irrigation, or by otherwise unreasonably acting or failing to act with respect to the bluff property. In determining whether or not the bluff property owner's actions were "reasonable," the City shall take into account whether or not the bluff property owner acted intentionally, with or without knowledge, and shall consider all other relevant credible scientific evidence as well as relevant facts and circumstances.

3. The location, size, design and operational characteristics of the proposed seacave/notch infill

will not create a significant adverse effect on adjacent public or private property, natural resources, or public use of, or access to, the beach, beyond the environmental impact typically associated with a similar bluff retention device and the seacave/notch infill is the minimum size necessary to protect the principal structure, has been designed to minimize all environmental impacts, and provides mitigation for all coastal and environmental impacts as provided for in this LCP.

B. The Seacave/Notch Infill shall be designed and constructed:

1. To avoid migration of the Seacave/Notch Infill onto the beach;
2. To be re-contoured to the face of the bluff, as needed, on a routine basis, through a CDP or exemption, to ensure the seacave/notch infill conforms to the face of the adjoining natural bluff over time, and continues to meet all relevant aesthetic, and structural criteria established by the City;
3. To serve its primary purpose which is to delay the need for a larger coastal structure and designed to be removable, to the extent feasible, provided all other requirements under the LCP are satisfied; and;
4. To satisfy all other relevant LCP and City Design Standards, set forth for coastal structures.

~~C. The Bluff Property Owner shall arrange for and pay the costs of:~~

~~1. The licensed Geotechnical or Civil Engineer; and~~
~~2. The Seacave/Notch Infill;~~
~~3. Appropriate mitigation; and~~
~~4. All necessary repairs, maintenance, and if needed removal.~~

C~~D~~. Only to the extent the City finds that the Seacave/Notch Infill encroaches on the public beach or upon the bluff face such that coastal resources are adversely impacted, then the City shall impose a Sand Mitigation Fee upon the bluff property owner.

Policy 4.49~~52~~: The bluff property owner shall pay for the cost of the coastal structure or Infill and pay a Sand Mitigation Fee and a Public Recreation Fee per LUP Policy ~~4.38~~4.40. These mitigation fees are not intended to be duplicative with fees assessed by other agencies. It is anticipated the fees assessed as required by this LCP will be in conjunction with, and not duplicative ~~with~~ of, the mitigation fees typically assessed by the CCC and the CSLC for impacts to coastal resources from shoreline protective devices.

Sand Mitigation Fee - to mitigate for actual loss of beach quality sand which would otherwise have been deposited on the beach. For all development involving the construction of a bluff retention device, a Sand Mitigation Fee shall be collected by the City which shall be used for beach sand replenishment and/or retention purposes. The mitigation fee shall be deposited in an interest-bearing account designated by the City Manager of Solana Beach in lieu of providing sand to replace the sand that would be lost due to the impacts of any proposed

protective structure. The methodology used to determine the appropriate mitigation fee has been approved by the CCC and is contained in LUP Appendix A. The funds shall solely be used to implement projects which provide sand to the City's beaches, not to fund other public operations, maintenance, or planning studies.

Sand Mitigation Fees must be expended for sand replenishment and potentially for retention projects as a first priority and may be expended for public access and public recreation improvements as secondary priorities where an analysis done by the City determines that there are no near-term, priority sand replenishment Capital Improvement Projects (CIP) identified by the City where the money could be allocated. The Sand Mitigation funds shall be released for secondary priorities only upon written approval of an appropriate project by the City Council and the Executive Director of the Coastal Commission.

Public Recreation Fee – Similar to the methodology established by the CCC for the sand mitigation fee, the City and the CCC are jointly developing a methodology for calculating a statewide public recreation fee. To assist in the efforts, the City has shared the results of their draft study with the CCC to support the development of a uniform statewide Public Recreation / Land Lease Fee. Until such time as an approved methodology for determining this fee has been established, and the methodology and payment program has been incorporated into the LCP through an LCP amendment, the City will collect a $1,000 per linear foot interim fee deposit. In the interim period, CCC will evaluate each project on a site-specific basis to determine impacts to public access and recreation, and additional mitigation may be required. The City shall complete its Public Recreation/Land Lease fee study within 18 months of effective certification of the LUP.

Project applicants have the option of proposing a public recreation/access project in lieu of payment of Public Recreation Fees (or interim deposits) to the City. At the City's discretion, these projects may be accepted if it can be demonstrated that they would provide a directly-related recreation and/or access benefit to the general public.

Public Recreation Fees must be expended for public access and public recreation improvements as a first priority and for sand replenishment and retention as secondary priorities where an analysis done by the City determines that there are no near-term, priority public recreation or public access CIP identified by the City where the money could be allocated. The Public Recreation funds shall be released for secondary priorities only upon written approval of an appropriate project by the City Council and the Executive Director of the Coastal Commission.

Policy 4.~~4853~~: Coastal structures shall be approved by the City only if all the following applicable findings can be made and the stated criteria satisfied. The permit shall be valid for a period of 20 years commencing with the building permit completion certification date ~~date of CDP approval~~ and subject to an encroachment removal agreement approved by the City.

A. Based upon the advice and recommendation of a licensed Geotechnical or Civil Engineer, the City makes the findings set forth below:

1. A bluff failure is imminent that would threaten a bluff home, city facility, city infrastructure, and/or other principal structure.
2. The coastal structure is more likely than not to preclude the need for a larger coastal structure or upper bluff retention structure. Taking into consideration any applicable conditions of previous permit approvals for development at the subject site, a determination must be made based on a detailed alternatives analysis that none of the following alternatives to the coastal structure are then currently feasible, including:
   - A Seacave/Notch Infill;
   - A smaller coastal structure; or
   - Other remedial measures capable of protecting the bluff home, city facility, non-city-owned utilities, and/or city infrastructure, which might include other non-beach and bluff face stabilizing measures, taking into account impacts on the near and long term integrity and appearance of the natural bluff face, and contiguous bluff properties.

Policy 4.514: An upper bluff system shall be approved only if all the following applicable findings can be made and the stated criteria will be satisfied. The permit shall be valid for a period of 20 years commencing with the building permit completion certification date and subject to an encroachment removal agreement approved by the City.

A. Based on the advice and recommendation of a licensed Geotechnical or Civil Engineer, the City makes the findings set forth below:
   1. A bluff failure is imminent that would threaten a bluff home, city facility, city infrastructure, and/or other principal structure in danger from erosion. ~~and, that.~~
   2. The bluff home, city facility, city infrastructure, and/or principal structure is more likely than not to be in danger within one year after the date an application is made to the City.

Taking into consideration any applicable conditions of previous permit approval for development at the subject site, a determination must be made based on a detailed alternatives analysis that none of the following alternatives to the upper bluff system are then currently feasible, including:

- No upper bluff system;
- Vegetation;
- Controls of surface water and site drainage;
- A revised building footprint and foundation system (e.g., caissons) with a setback that avoids future exposure and alteration of the natural landform;
- A smaller upper bluff system;
- Other remedial measures capable of protecting the bluff home, city facility, non-city-owned utilities, and/or city infrastructure which might include tie-backs or other feasible non-beach and bluff face stabilizing measures, taking into account impacts on the near and long term integrity and appearance of the natural bluff face, the public beach, and, contiguous bluff properties; ~~and~~ or
- Removal and relocation of all, or portions, of the affected bluff home, city facilities or city infrastructure.

Policy 4.525: All permits for ~~new~~ bluff retention devices shall expire 20 years after ~~approval of the~~

~~CDP,~~ the building permit completion certification date, ~~-~~and a new CDP must be obtained. Prior to expiration of the permit, the bluff top property owner shall apply for a coastal development permit to remove, modify or retain the protective device. ~~—~~In addition, expansion and/or alteration of a legally permitted existing bluff retention device shall require a new CDP. The CDP application shall include a re-assessment of need for the device, the need for any repair or maintenance of the device, and the potential for removal based on changed conditions. ~~-~~The CDP application shall ~~evaluate~~ include an include an evaluation of:

- ~~the~~The age, condition and economic life of the existing principal structure;
- changed geologic site conditions including implementation of the City's long-term USACE beach nourishment program or similar long-term, large scale sand replenishment or shoreline restoration program; and~~,~~
- any impact to public access and recreation.

~~relative to sea level rise and the age, condition, and economic life of principal structure including whether it was an existing structure on January 1, 1977 (prior to implementation of the Coastal Act). Prior to expiration of the permit, the bluff top property owner shall apply for a coastal development permit to either remove or retain the protective device.~~ The CDP shall include a condition of reassessment and reauthorization of the device in 20 years~~——~~.No permit shall be issued for retention of a bluff retention device unless the City finds that the bluff retention device is still required to protect an existing principal structure, that it will minimize ~~avoid~~ further alteration of the natural landform of the bluff, and that adequate mitigation for impacts to the public beach has been provided.

~~**Policy 4.72:** Use the funds in the Shoreline District Account to pay for projects such as beach sand replenishment and retention structures, including feasibility and impact studies, operating expenses, insurance, litigation; and to pay to conduct surveys and monitoring programs. Sand Mitigation Fees may only be expended for sand replenishment and potentially retention projects, and Land Lease/Recreation Fees may be expended for public access and public recreation improvements.~~

Chapter 5 – Proposed Revisions

Policy 5.9.5: Ensure the private and public interest in protecting and preserving private property rights under the state and federal Constitutions, the Coastal Act, and local ordinances, such that regulations are not overreaching and no private owner is denied reasonable use of his, her or its property. In accordance with Public Resources Code Section 30010, this Policy is not intended to increase or decrease the rights of any property owner under the Constitution of the State of California or of the United States.

Policy 5.45: Existing, lawfully established structures that are not located on property located between the sea and its inland extent and the first public road paralleling the sea (or lagoon) that were built prior to the adopted date of the LUP that do not conform to the provisions of the LCP shall be considered non-conforming structures. Non-conforming uses or structures may not be increased or expanded into additional locations or structures. Such structures may be maintained~~,~~ and repaired as long as the improvements do not increase the size or degree of non-conformity. This section shall not be interpreted to allow the reconstruction of a nonconforming structure unless destroyed by a disaster~~,~~ as defined in Public Resources Code § 30610(g)(2)(A).

~~Demolition and reconstruction that results in the demolition of more than 50 percent of the exterior walls of a non-conforming structure is not permitted unless the entire structure is brought into conformance with the policies and standards of the LCP. Non-conforming uses or structures may not be increased or expanded into additional locations or structures. (See Policy 4.14 for structures that are located between the sea and its inland extent and the first public road paralleling the sea (or lagoon).)~~

Chapter 7 – Proposed Revisions

Policy 7.1:

b) All public transportation facilities, including streets, roads, highways, public parking lots and structures, ports, harbors, airports, railroads, and mass transit facilities and stations, bridges, trolley wires, and other related facilities. ~~For purposes of this division, neither the Ports of Hueneme, Long Beach, Los Angeles nor San Diego Unified Port District nor any of the developments within these ports shall be considered public works.~~

Chapter 8 – Proposed Revisions and Additions

Bluff Top Redevelopment: Shall apply to structures located between the sea and the inland extent of the sea and the first public road paralleling the sea (or lagoon) that consist of (1) additions; (2) exterior and/or interior renovations; (3) or demolition of an existing bluff home or other principal structure which results in: (1) alteration of 50% or more of major structural components; or (2) a 50% increase in floor area. Alterations are not additive or cumulative between individual major structural components; however, changes to individual major structural components are cumulative over time from the date of certification of the LUP.

~~(1) Alteration of 50% or more of an existing structure, including but not limited to, alteration of 50% or more of exterior walls, interior load-bearing walls, or a combination of both types of walls, or a 50% increase in floor area.; or~~

~~(2) Demolition, renovation or replacement of less than 50% of an existing structure where the proposed remodel would result in cumulative alterations exceeding 50% or more of the existing structure from the date of certification of the LUP.~~

Caisson Foundation: Means a subsurface support structure. A Caisson is a shaft or shafts of steel reinforced concrete placed under a building column, foundation or wall and extending down to hardpan, bedrock or competent material as defined or approved by a soils engineer or geologist. Caissons, for this definition, are drilled into position and are used to carry surface building loads and/or to carry surface building loads from anticipated future loss of support (i.e. "slope failure"). Also known as pier foundation.

Cantilever: A projecting or overhanging structure of up to 10 feet in depth on the west side of a Bluff Home that is supported at one end and carries a load at the other end or along its length. Cantilever construction allows for structures to project seaward of the GSL or rear yard setback without external bracing. All foundation footings and structural supports for cantilevered square footage shall be located landward of the geologic setback line/rear yard setback. No newly constructed cantilevered square footage is permitted to project over the bluff edge.

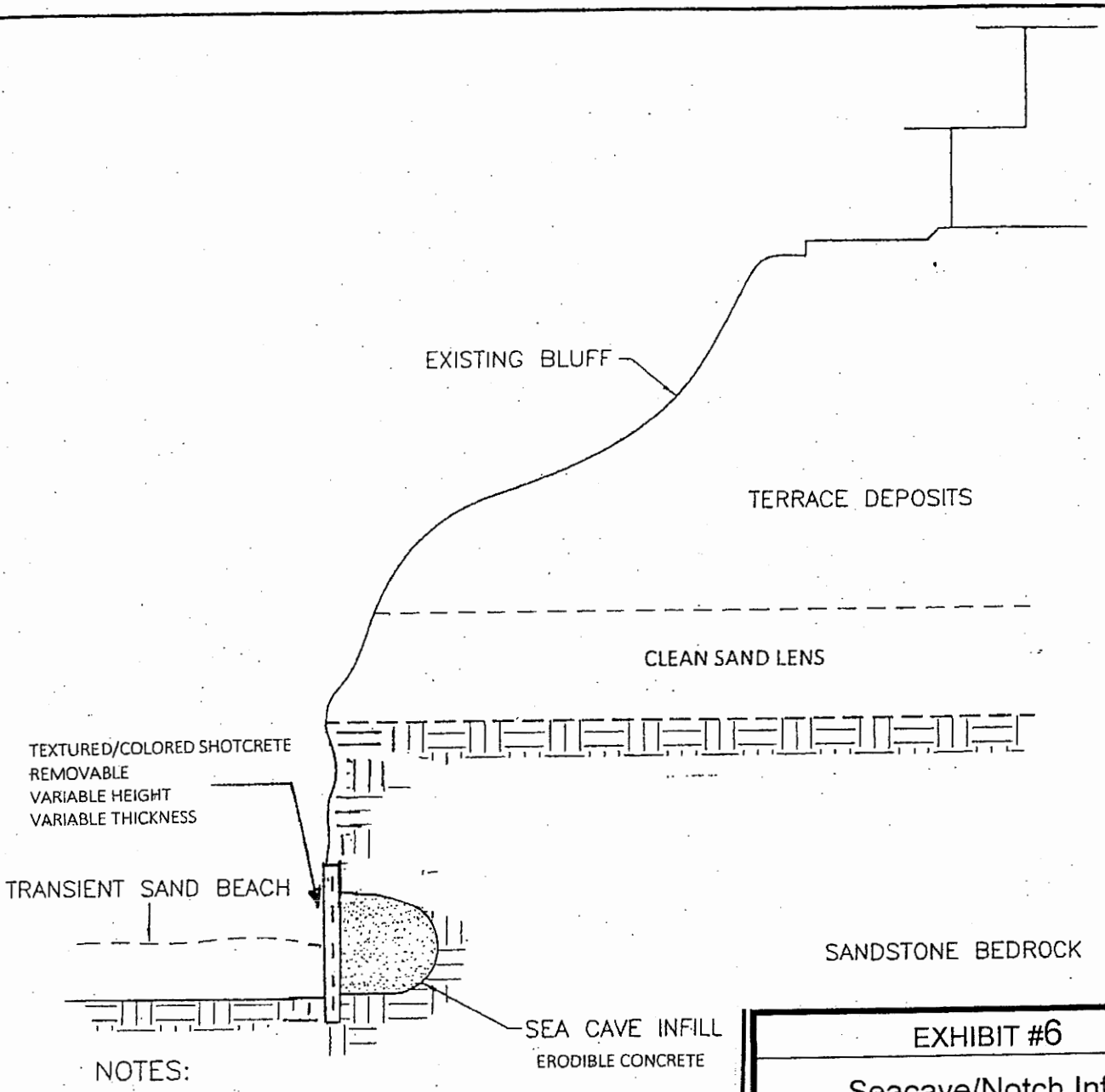


EXHIBIT #6

Seacave/Notch Infill

LCPA # SOL-MAJ-1-13

California Coastal Commission

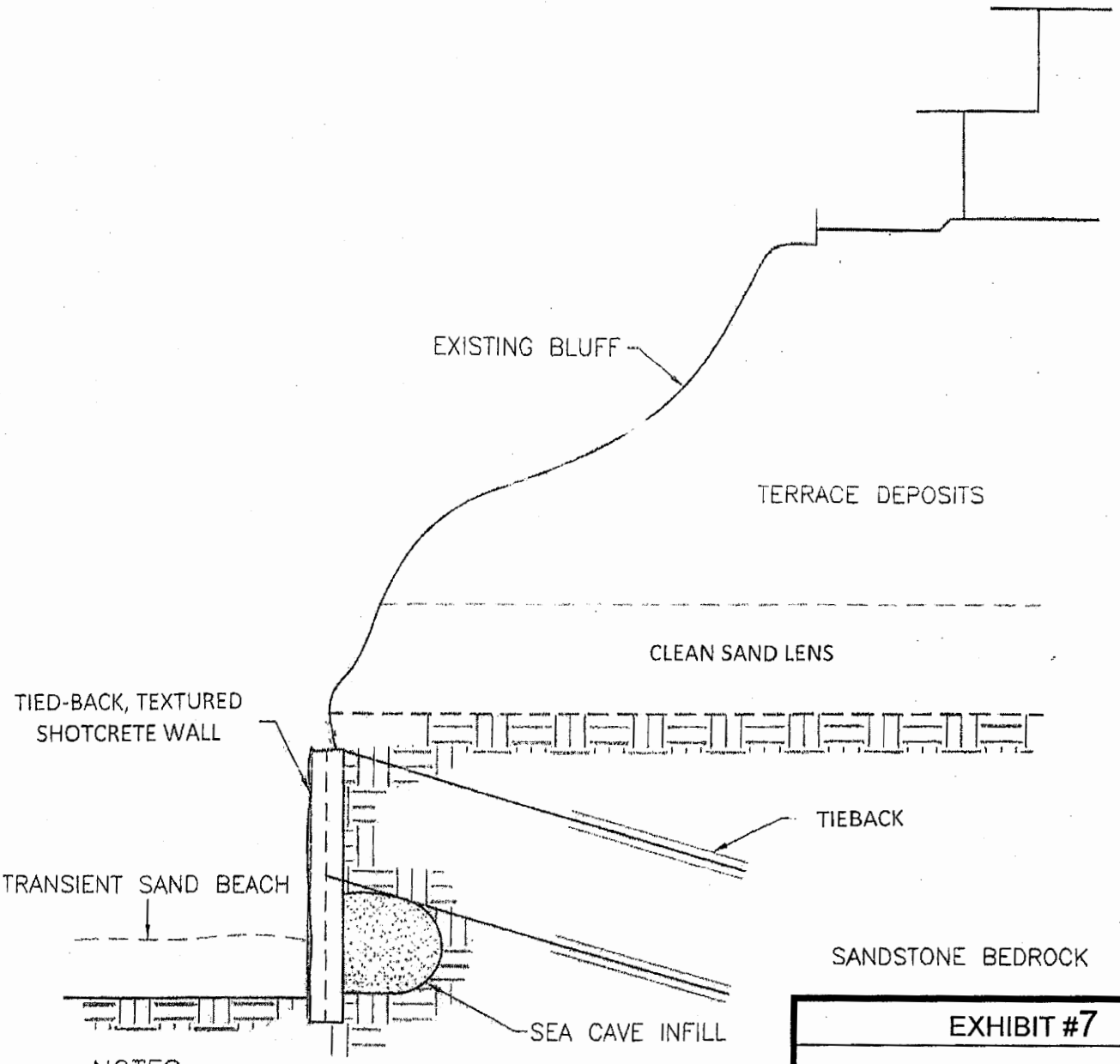
NOTES

1. GEOTECHNICAL REPORT
2. NOTCHED TO BEDROCK(4 DIRECTIONS), REINFORCEMENT TO ATTACH TO ERODIBLE CONCRETE
3. MINIMIZE ALTERATION OF BLUFF – FACE OR MIMIC EXISTING
4. INCLUDE MONITORING FOR FUTURE MAINTENANCE
5. NO SEAWARD ENCROACHMENT
6. BLUFF FACE TO HAVE "NATURAL COLOR AND TEXTURE"(SBMC 17.62) .

Alternate Preferred Solution – Infill Stabilization

City of Solana Beach

FIGURE NO. 1A



NOTES:

1. FACTOR OF SAFETY NEAR 1.0
2. GEOTECHNICAL REPORT
3. STRUCTURAL CALCULATIONS
4. LOCATED AS FAR LANDWARD AS POSSIBLE
5. MINIMIZE ALTERATION OF BLUFF–FACE OR MIMIC EXISTING.
6. INCLUDE DETAILED METHODOLOGY FOR MONITORING AND MAINTENANCE OVER THE LIFE OF THE DEVICE.
7. MINIMIZE THE NEED FOR ANY MAINTENANCE THAT NECESSITATATES ADDITIONAL SEAWARD ENCROACMENT OF THE DEVICE.
8. BLUFF FACE TO HAVE "NATURAL COLOR AND TEXTURE" (SBMC 17.62)

EXHIBIT #7

Lower Seawall

LCPA #SOL-MAJ-1-13

California Coastal Commission

Preferred Solution – Infill/Bluff Stabilization – Lower Seawall

City of Solana Beach	CCC – Approved LUP, February 2013	FIGURE NO. 1

General Beach/Bluff Ownership Information

North of Fletcher Cove:
-Single Family Homes
-Beach is public
-Bluffs are public**

Fletcher Cove

South of Fletcher Cove:
-Condominiums
-Beach is public
-Bluffs are private

EXHIBIT #11
Beach/Bluff Ownership
LCPA #SOL-MAJ-1-13 California Coastal Commission

***Small amount of bluff property has been quitclaimed to private ownership north of Fletcher Cove*

CITY OF SOLANA BEACH
635 SOUTH HIGHWAY 101 • SOLANA BEACH, CALIFORNIA 92075-2215 • (858) 720-2400
www.cityofsolanabeach.org FAX (858) 792-6513 / (858) 755-1782

January 6, 2014

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CALIFORNIA
COASTAL COMMISSION
SAN DIEGO COAST DISTRICT

Ms. Deborah N. Lee, District Manager
California Coastal Commission
7575 Metropolitan Drive, Suite 103
San Diego, California 92108

Re: City of Solana Beach Local Coastal Program Land Use Plan Amendment (CCC Item Thu 7d)

Dear Deborah:

As discussed with you and other CCC staff, we are in agreement with most of the suggested modifications to the City's LUP Amendment (LUPA) made by CCC staff. However, the City has identified there are significant problems still remaining with CCC #2, #3, and #4 suggested modifications regarding the use of erodible concrete, without a higher strength facing which can be colored and sculpted to match the native bluff, for seacave and bluff notch infills in the City of Solana Beach.

Originally the City's LUPA was scheduled for a hearing on October 2013. The City received a draft suggesting modifications from the San Diego CCC staff and met with them on October 1, 2013 to discuss the CCC staff's suggested modifications. Due to lack of time remaining until the hearing, City Staff agreed to postpone the hearing until November and work to resolve all remaining issues. The City was supportive of many of the suggested modifications but a few of the proposed changes to Chapter 4 raised issues that required technical discussion involving the CCC Coastal Engineer Lesley Ewing, Geologist Mark Johnson, and the City's Geotechnical Engineer Jim Knowlton of Geopacifica. Sherilyn Sarb suggested City Staff contact CCC's technical staff to discuss and work through the technical issues. A technical meeting to discuss the use of erodible concrete was held on October 9, 2013. A summary of the salient discussion and agreement points are as follows:

Jim Knowlton explained that based on his 30+ years of coastal geotechnical engineering in Solana Beach and surrounding communities, the use of erodible concrete as a sea cave or bluff toe notch fill was used experimentally for a short period of time in the City based on the thinking that it would erode at roughly the same rate as the bluff:

- This was thoroughly vetted during the development of the City's Certified LUP and specifically excluded as an option because it does not perform well when the bluff is subject to constant wave attack as it is in Solana Beach;
- Requires significant maintenance to keep the fill intact and in place;
- Creates a scour condition around and behind the fill which causes the erodible concrete fill to migrate out onto the public beach over time;
- Creates significant aesthetic impacts because it cannot be colored or sculpted to match the natural bluff;
- Is therefore not an adequate or appropriate solution in Solana Beach.

City's Response to STAFF Recommendation

25

Coastal staff suggested that erodible concrete be used as a preventative device where the clean sand lens is not yet exposed:

- Wanted to include an alternative in the LUP that was not a seawall;
- Acknowledged that it would likely require annual maintenance;
- Indicated that these types of fills would not be subject to mitigation fees;
- Could be covered with higher strength concrete that could be colored and sculpted for a more natural appearance;
- Could be notched into the bluff to prevent its migration onto the public beach.

The outcome of this technical discussion was City Staff agreed to support the use of erodible concrete provided that specific language was added requiring that sea cave and notch fills be notched into the bluff to prevent migration of the concrete fill onto the beach and that the fills are covered using a higher strength concrete which can be colored and sculpted to match the natural bluff as an aesthetic treatment.

On October 17, 2013, City Staff met with key CCC San Diego District Staff and Executive Director Dr. Charles Lester to discuss this and other LUPA policies with the singular goal of working through the remaining issues and confirming the additional revisions CCC staff would make in their staff recommendation.

However, following the technical meeting held on October 9, 2013, CCC staff issued a new draft suggesting modifications that added another notch infill alternative (Figure 1A) using erodible concrete. This option does not include any ability to color match, carve, or otherwise contour the infill to replicate the appearance of the surrounding native sandstone coastal bluff.

City Staff remains opposed to the use of erodible concrete for seacave and notch infills, without a higher strength facing, as proposed by CCC staff in Figure 1A for the following reasons:

1. CCC staff recommended Figure 1A is inconsistent with the City's Certified LUP because it would result in creation of significant and adverse aesthetic and visual impacts on the public beach which is contrary to the City's goals as expressed in the LUP;
2. CCC staff suggested Figure 1A is contrary to the agreement reached by CCC technical staff (Lesley Ewing, Mark Johnson, and City technical consultant Jim Knowlton) in a meeting held on October 9, 2013 in which all parties agreed that the use of erodible concrete could be supported if a layer of higher strength facing was applied enabling the infill to be colored and hand sculpted to match the native bluff;
3. The past experimental use of erodible concrete for seacave and bluff notch infills has been a failure in the City. This practice has been effectively been banned in the City of Solana Beach for more than a decade because the use of erodible concrete has been proven to be an ineffective solution in the City's marine environment. Erodible concrete infills have migrated onto the public beach, provide very little protective benefit, and cannot be colored or sculpted to match the native bluff; and
4. City Staff disagrees with the appropriateness of the erodible concrete infill option (Figure 1A) which had already been fully vetted during the many years of the development of the Certified LUP, was specifically excluded from the range of options allowed in the City, and has been effectively been banned since 2004.

To reaffirm, City Staff will support the use of erodible concrete as shown in (Figure 1B) provided the following:

1. Specific language is retained requiring that sea cave and notch fills be notched into the bluff to prevent migration of the concrete fill onto the public beach;

2. The fills are covered with a layer of higher strength concrete which can be colored and sculpted to match the natural bluff as a key aesthetic treatment to minimize significant adverse visual and aesthetic impacts on the public beach associated with shoreline protective devices.

As you know, we have worked diligently with CCC staff to reach consensus on the provisions of the LUPA where we are not in agreement. We remain hopeful that CCC staff and the Commissioners will support the City's request to reject CCC staff suggested modifications #2, #3, and #4 for the reasons stated above.

We look forward to productively working with you and other CCC staff on this remaining issue. Please contact me at 858-720-2431 if you have any questions.

Sincerely,

David Ott
City Manager

cc: California Coastal Commissioners
Solana Beach City Council
Dr. Charles Lester
Sherilyn Sarb
Eric Stevens
Johanna Canlas

Th8a

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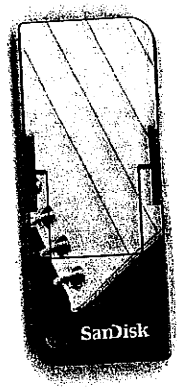
SAN DIEGO COAST DISTRICT

CITY OF SOLANA BEACH



November 5, 2013

Dear Coastal Commissioners:

Enclosed please find a thumb drive which contains a short informational video showing the existing conditions of the beaches and the bluffs in Solana Beach and portions of Encinitas. The video is intended to provide background information for two items on the November 14, 2013 agenda: Items Thu-8a and Thu 11a.

Thank you in advance for taking the time to watch this presentation. We hope you find it educational and informative. I would be happy to answer any questions you may have about the video and the Solana Beach Land Use Plan Amendment (Item Thu 8a) or the Coastal Storm Damage Reduction Project (Item Thu 11a).

Sincerely,

David Ott
City Manager

It is not possible for the Commission to display the contents of the 'thumb drive' in the addendum. To view the contents of the 'thumb drive' contact the San Diego District Commission Office.

635 South Highway 101, Solana Beach, CA 92075 (858) 720-2400
Printed on Recycled Paper

Ex-Parte

Th8a, Th12a, Th13a

EX PARTE: [redacted]SOLANA BEACH (ALSO, TH 12A AND 13A BY REFERENCE TO SEA WALL TIME LIMITS)

Date and Time: Nov.5 – 3pm

Location/type of communication: telephone

Persons initiating: Julie Chun for Surfrider
Persons Receiving: Dayna Bochco

Surfrider did not agree with the change made to the "life of seawall" from Aug meeting (Land's End) and felt they didn't have chance to object.

Surfrider disagreed with the use of the override provisions of the CA and, apparently, this Nov report doesn't refer to it. They feel that this is very important because all of SB seawall's are on public land.

They feel the new standard is ambiguous, subject to misinterpretation and does not provide for periodic review for the need of seawalls. The certified LUP language in SB was much better than what staff proposes.

"redevelopment" definition is less strong and subject to abuse. They suggest: if not going to use seawall life of 20years, then use an "or if public lateral access is blocked (due to no sand) 50% of the time" as an alternative trigger for review.

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SAN DIEGO COAST DISTRICT

4.47 (pg 11 of Staff) remove "potential"

4.52 (pg 12) expansion, "repair, maintence" added to trigger for review.

Th8a

FORM FOR DISCLOSURE OF EX PARTE COMMUNICATIONS

FORM FOR DISCLOSURE OF EX PARTE COMMUNICATIONS

Name or description of project: Th 8a Solana Beach LUPA SOL-MAJ-1-13 (Coastal Bluff Devt)

Date and time of receipt of communication: 11/11/2013 3 pm
Location of communication: Santa Barbara

Type of communication (letter, facsimile, etc.): telecon

Person(s) initiating communication: Sara Wan Julia Chunn, Surfrider

They were concerned about the change that occurred with Lands End. She states that the difference with Lands End is that seawalls in Solana Beach are on public land. Need to answer the hard questions before they start pulling out the 20 year provision.

Concerned that 30235 becoming the be all and end all. If access is blocked within 20 years, they don't believe a homeowner has a right to a sea wall. It will be difficult to provide findings.

The change from the 20 years, to design life. It is understandable to make that change, but the opposite should be true. That whenever the design life terminates or redevelopment or blocking of access a certain percentage of time the right to maintain the seawall would be reviewed.

Had specific recommendations regarding definition of redevelopment, needs to be strong statewide. The definition currently in the LCP is the strongest. They can live with the staff report with addition described in their letter.

Staff added the word "potential" in Section 4.47 and 4.52, it should it be removed. They know that impacts will exist. It softens the likelihood of mitigation. If they are going to go beyond the initial period they should be expecting to mitigate for all their impacts.

The words 'repair and maintenance' should be called out in Section 4.52 This is all in their letter of November 8.

11/11/13 – Jana Zimmer

Th8a, Th11a, Th12a and Th13a

DISCLOSURE OF EX PARTE COMMUNICATIONS

Name or description of project:
Several: Items Th8a, Th11a, Th12a and Th13a

Date and time of receipt of communication:
November 12, 2013 at 10:00 am

Location of communication:
San Diego

Type of communication:
Phone conversation

Person(s) in attendance at time of communication:
Julia Chunn-Heer

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Person(s) receiving communication:
Greg Murphy (staff for Greg Cox)

Detailed substantive description of the content of communication:

On Tuesday, November 12th, Julia Chunn-Heer from Surfrider spoke to Greg Murphy on my staff by phone. Surfrider has a number of concerns regarding items 8a, 11a, 12a and 13a on Thursday's agenda. Julia Chunn-Heer forwarded four Surfrider letters that were previously provided to staff.

Regarding Item Th8a: Julia said that Surfrider fundamentally disagrees with staff's interpretation of the Coastal Act that sea-walls are allowed "at all costs" to protect existing development. Julia also drew a distinction between Solana Beach and Land's End. Land's End's seawalls are on private property whereas seawalls in Solana Beach and on public land, so these actions taken by the Commission are precedent-setting. She then briefly described Surfrider's main points in the four letters.

Surfrider advocates for "incremental review" of sea walls on a time frame that is consistent with the design life of the seawall or redevelopment of the property they are intended to protect; whichever comes first. She said anything less should be considered a "reverse-taking" since access to the coast and public recreation on the beaches would be impacted. She said a restriction on public access to the beach should be considered as a third trigger for requiring a review of a seawall.

Regarding Item Th11a: Surfrider continues to oppose the beach sand renourishment project. Julia said the sand levels were reduced but the impacts on surfing remain. She said the impacts on surfing was never taken seriously in the design process. Surfrider would rather see a Regional Beach Sand Replenishment project with more local control through SANDAG, instead of an Army Corps funded project.

Regarding Item Th12a: Surfrider would like to see a feasibility study completed for moving the bluff-top structure back 40-feet as required by the certified LUP. Not doing so would set a bad precedent, despite general consensus that moving the structure is infeasible at this time.

Regarding Item Th12a: Surfrider would like to see a feasibility study completed for moving the bluff-top structure back 40-feet as required by the certified LUP. Not doing so would set a bad precedent, despite general consensus that moving the structure is infeasible at this time. Also, Surfrider contends that erosion rates used in this item should match the rates used in the Army Corps project.

Regarding Item Th13a: In 2003, a lower level bluff armoring was constructed on the bluff fronting 357 Pacific Avenue in Solana Beach. In 2007, a policy was adopted that provides a Land Lease and Recreation fee deposit ($1,000/linear fee) due to the use of public lands in Solana Beach for bluff armoring. Surfrider believes this property was never assessed the mitigation fee deposit, so now that the upper and mid-bluff are being proposed for armoring, which will extend the life of the lower segment, Surfrider believes the fee deposit should be assessed.

Date: 11/12/13

Signature of Commissioner: Greg Cox

Item Tb7d

DISCLOSURE OF EX PARTE COMMUNICATIONS

LUP
Sol. MAJ-1-13
BLUFF TOP DEVT

Name or description of project:
Public hearing and action on request by the City of Solana Beach to amend its certified LUP relating primarily to bluff top development standards and shoreline protection work.

Date and time of receipt of communication:
January 3, 2014 at 1:30pm

Location of communication:
San Diego

Type of communication:
In person

Person(s) in attendance at *time of communication*:
Julia Chunn-Heer

Person(s) receiving communication:
Greg Cox and Greg Murphy

Detailed substantive description of the content of communication:
(Attach a copy of the complete text of any written material received.)

I met with Julia Chunn-Heer to discuss Surfrider's opposition to the proposed LUP Amendment in Solana Beach. In particular, Surfrider wants incremental review of sea walls every 20 years. They believe that erodible concrete is a myth and they believe the proposed amendment is inconsistent with the Commission's proposed sea-level rise guidance policy.

Date: 1/7/14

Signature of Commissioner: Greg Cox

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COASTAL COMMISSION
SAN DIEGO COAST DISTRICT

SURFRIDER FOUNDATION
SAN DIEGO COUNTY CHAPTER

Surfrider Foundation San Diego County Chapter

9883 Pacific Heights Blvd, Suite D
San Diego, CA 92121
Phone: (858) 622-9661 Fax: (858) 622-9961

September 20, 2013 Delivered via email

Eric Stevens, Coastal Program Analyst
Deborah Lee, District Manager
Coastal Commissioners and Chairwoman Mary Shallenberger

RE: City of Solana Beach Land Use Plan Amendments

Dear Chairwoman, Commissioners and Staff,

The Surfrider Foundation is a non-profit, environmental organization dedicated to the protection and enjoyment of the world's oceans, waves and beaches through a powerful activist network. The Surfrider Foundation has over 250,000 supporters, members and activists worldwide. Please accept these comments on behalf of the San Diego Chapter of the Surfrider Foundation on the proposed Land Use Plan Amendments (LUPA) for Solana Beach.

The City of Solana Beach has been working on their Local Coastal Program (LCP) for over ten years; Surfrider San Diego County Chapter has been a stakeholder and provided comments throughout the entire process. Additionally, Jim Jaffee, the Co-Chair of our Beach Preservation Committee, was a volunteer on the Citizen's Committee and later was selected by the City Council as a representative on the Committee that met with the City and Coastal Commission to resolve differences in interpretation of the LUP as approved by the Commission in March 2012.

We would like to remind you of our comments, previously submitted into the record, in preparation for the City's hearing on the draft LUPA. While many of our concerns are provided there, we would like to reiterate those concerns and supplement those comments with additional information in case the Commission is receiving pressure to make further changes to the LUPA in light of the recent Land's End/Pacifica decision.

We understand the LUPA currently offer only minor tweaks to the LUP, however, should the Commission receive pressure to make additional substantive changes in light of the recent Land's End decision or Lynch case, we would like to proactively address the facts that distinguish those cases.

First of all, during the discussion surrounding the Land's End application at the August Coastal Commission (CCC) hearing, there were significant questions as to whether the removal of the 20-year permit provision was meant to be a precedent-setting decision or not. Executive Director Charles Lester stated something to the effect of, "the 20 years in Solana Beach and Santa Cruz were dictated by the facts in those cases".

EXHIBIT #12
Public Comment Letter 3
LCPA #SOL-MAJ-1-13
California Coastal Commission

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The Pacifica/Land's End project was conditioned with a $1.6 million mitigation fee for adverse impacts to beach access and recreation. The fee was imposed for a 640 ft. long wall and included a credit for the construction of ~$1.2 million public access stairway that improved access in the area suffering from the seawall's adverse impact. In addition, the applicants granted an ambulatory easement to guarantee lateral and vertical access across the site and if this access is threatened, they must come back for a permit amendment. Therefore, impacts to access are more substantially mitigated in the Pacifica project than in the Lynch case or in Solana Beach. In addition, Lynch in itself is not applicable to Solana Beach's facts or the facts in Pacifica according to the Coastal Commission.

Furthermore, we would like to remind the Commission that the 20-year provision is not an arbitrary time frame. When many of the residents of Solana Beach originally sought Coastal Development Permits (CDPs) for seawalls, including the Las Brisas complex, their engineers stated that the seawalls were only designed to last 22 years. As such, project proponents asked that the mitigation be calculated based on the anticipated life of the seawall. Since that time, many seawall applicants have acknowledged and accepted the 22-year condition in their seawall CDP 6-05-72. Prior to the end of that 22-year period, Las Brias must apply to either remove the seawall or provide additional mitigation.

Similarly, Chris Hamilton, President of the Beach and Bluff Conservancy, accepted a similar condition except over a 20-year period in 6-08-68. If any precedent has been set it is the precedent of those building nearly a mile of seawalls in Solana Beach through their expert Geotechnical Engineer's Walter Crampton or Anthony-Taylor Consultants.

Additionally, in the above mentioned CDP's, substantial impacts were deemed to occur over the 20 year interval associated with these seawalls. Solana Beach also published an Environmental Impact Report that deemed seawalls would have significant impacts.

The fact that (in most cases) the City of Solana Beach either directly owns the land or controls the land by easements meant for public access where the seawalls are constructed further differentiates Solana Beach from the Land's End decision. Furthermore, throughout the development of the LUP the Public Recreation Fee associated with seawalls is referred to as the "Public Recreation/Land Lease Fee". This is in direct contrast with Pacifica and Lynch, which have no Lease component. The City further calls attention to their land ownership in chapter 4 of the LUP:

> *"In association with approval of any bluff retention device on public land, the City will also require an encroachment removal agreement to be renewed at least every 20 years. Additional mitigation for impacts to public access and recreation may also be required through site-specific review and approval of the coastal development permit."*

We also wish to share a video edit we compiled to argue Solana Beach approve the LUP with modifications from the CCC. Note that the CCC voted unanimously for approval and made significant

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statements in deliberations on public ownership. Similarly, the City in their submission to Coastal Commission had similar discussions. https://www.youtube.com/watch?v=ZYclYw8LodA

Attached here you will find:

1. Our comments to the May LUP Amendment Hearing in Solana Beach.
2. A PowerPoint summary of key issues in our position (from May 22, 2013 local hearing).
3. Evidence that State Parks, as owner of the beach and bluff adjacent to a property requesting a seawall, denied use of their land for seawalls. In fact they denied use of land for Mr. Joseph Steinberg, plaintiff in the lawsuit vs. the (CCC) California Coastal Commission being litigated with respect to the 20-year provision in Solana Beach. This letter from State Parks says: "There is no allowance for State Parks to grant an easement for private use...". This is all true despite Steinberg having a Staff Report recommending approval under 30235. It clearly shows an agency with deed to land may prevent use of such land for seawalls. Like State Parks, Solana Beach has an ownership position in the beach and bluffs. This ownership position is clearly stated in the June 2011 LUP as submitted to the CCC and as was recently certified.

There are additional cases in support of a position of ownership (See below for details) such as:

1. Scott v. City of Del Mar (1997) 58 Cal. App. 4th 1296 [68 Cal. Rptr. 2d 317] where the City of Del Mar was able to relocate seawalls from public property.
2. CCC CDP 6-00-009 where the Del Mar Beach Club was unable to construct a seawall on land in the City of Del Mar
3. Schooler v. State of California (2000) 85 Cal. App. 4th 1004 [102 Cal. Rptr. 2d 343] where State Parks was not required to abate a nuisance and construct a seawall on State Park Land.

There are likely other precedents but these are the ones that give the City extra discretion in permitting seawalls beyond that of the CCC and allow for a more restrictive LUP. An example of an LUP with more restrictive provisions is what Solana Beach approved including without limitation the 20-year provision.

Specific to the Lynch and Frick application, I would like to direct your attention to the CCC Staff Report page 38-40 from which we provide the following excerpts:

Complete report available at http://documents.coastal.ca.gov/reports/2011/6/W16c-6-2011.pdf

> *"The proposed seawall, which will be 100 ft.-long and approximately 2 ½ ft.-wide, will be constructed adjacent to and inland of the mean high tide line at Leucadia State Beach. Unlike the subject application request, most if not all of the seawall applications approved by the Commission in Encinitas and in nearby Solana Beach have been located on the public beach, seaward of the mean high tide line."*

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As you can see by the above first quote in the Staff Report, public land is not involved in the Lynch and Frick application, while in most cases in Solana Beach and Encinitas, public land is involved. The circumstances of the approval of this project and related litigation are likely different. This report continues:

> *"According to the Commission's Technical Services Division, the seawall will not directly impede the public access or recreational uses typically considered by the Commission over its 20 year authorization period because there will be no direct encroachment of the proposed development onto public beach area. And, since the proposed wall and the beach platform upon which the proposed wall be constructed are both inland of the mean high tide line, the creation of beach area inland of the proposed seawall location would, for the foreseeable future, also be inland of the mean high tide line. Thus, while the proposed seawall will fix the back of the beach, the effects of fixing the back beach will not have an adverse impact upon available public beach area. Over time, the mean high tide elevation may be adjusted to a higher level and the beach platform will be worn down due to repeated wave attack, and the current wall location may become the inland limit for the mean high tide line. Therefore, in this case, the Commission is not requiring mitigation for direct public access/recreational use impacts at this time. Also, at the end of the authorized 20 year period, the beach conditions and mean high tide elevation should be re-evaluated to determine if this condition has changed."*

The second excerpt states that there are no impacts to access and recreation over the 20 year period as proposed in the Lynch application. This is in stark contrast to seawalls in Solana Beach. However, the CCC allows for a review at the end of the 20-year period to make certain this is still the case.

Attached is the Schooler case and Scott vs. Del Mar, which is an important case in our seawall position. This case ruled that a seawall built on public property could be removed and declared as a nuisance. Full documents can be downloaded at
http://caselaw.lp.findlaw.com/data2/californiastatecases/D034587.PDF
and http://caselaw.lp.findlaw.com/data2/californiastatecases/d026338.pdf

Excerpted is some of the key information in the ruling:

> *"As discussed above, the evidence established (1) the Public Sidewalk on Map 1450 was dedicated to public use in 1912, and (2) the private seawalls, rip rap and patios on the Scott and Lynch properties completely obstructed public access to the Public Sidewalk area. Accordingly, the improvements were nuisances per se, and Del Mar had the power to declare them such and remove them, after complying with due process requirements."*

> *"Likewise, Scott's and Lynch's claims that Del Mar's removal of the protective structures caused their properties to decrease in value fails to establish a constitutionally compensable*

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> *"taking or damaging." To the contrary, as discussed above, Del Mar's abatement of the encroachments on public land was a reasonable exercise of its police power, which does not give rise to an inverse condemnation action."*

While the seawall was ultimately removed from public property it was later built on private property.

Thank you for your time and consideration. Please do not hesitate to contact us for additional information or with questions.

Sincerely,

Julia Chunn-Heer
Campaign Coordinator
San Diego Chapter of the Surfrider Foundation

Jim Jaffee
Advisor, San Diego County Chapter of the Surfrider Foundation
Resident of Solana Beach

Kristin Brinner
Beach Preservation Committee, San Diego County Chapter of the Surfrider Foundation
Resident of Solana Beach

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State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Arnold Schwarzenegger, *Governor*
Ruth Coleman, *Director*

October 6, 2006

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CALIFORNIA
COASTAL COMMISSION
SAN DIEGO COAST DISTRICT

Lee McEachern, District Regulatory Supervisor
California Coastal Commission
San Diego Area
7575 Metropolitan Drive, Suite 103
San Diego, CA 92108-4421

Dear Mr. McKechern,

California State Parks has had the opportunity to review the Staff Report and Preliminary Recommendation to the Commission for Application Number 6-05-134, dated September 28, 2006, and provides the following input:

The project proposes the construction of an approximately 145 foot long and 22 foot high tied-back concrete seawall on Cardiff State Beach, owned and managed by California State Parks. Special conditions for the issuance of the permit, included in Section III, Item 11 of the Staff Report, requires the applicant to provide the Executive Director of the Coastal Commission for review and written approval, a written determination that either no state lands or State Park properties are involved in the development, or that all permits are obtained by the applicant from state entities such that the project may move forward. The property boundaries of State Park lands in the project vicinity are shown on the attached documents. State Parks owns that land above mean high tide to the top of the bluff where it abuts private residential property within the City of Solana Beach.

California State Parks is operated under the provision of the Public Resources Code (PRC) with reference to other California Codes, as appropriate. Provisions are incorporated that allow the issuance of easements of State Park lands to a public entity for a public benefit. There is, however no allowance for State Parks to issue an easement to a private party for their personal use. Additionally, the property at Cardiff State Beach, included in this permit request, was purchased with public monies that put restrictions on the use of the property to ensure it is managed for the public good, in perpetuity.

While we understand and are sympathetic to the owners of bluff-top properties, the situation faced by this applicant is not unique. Coastal developments statewide are subject to the same threats of coastal erosion. The issue of bluff erosion is not a simple one and bluff slumping is a natural process, exacerbated by ocean waves, as well as by movement of groundwater, lawn and garden watering, and surface and subsurface runoff.

In conclusion, California State Parks does not have the authority to approve this project as proposed with the special conditions of the Coastal Commission's Staff Report. If you have any questions, please feel free to contact me at 619.688.3260.

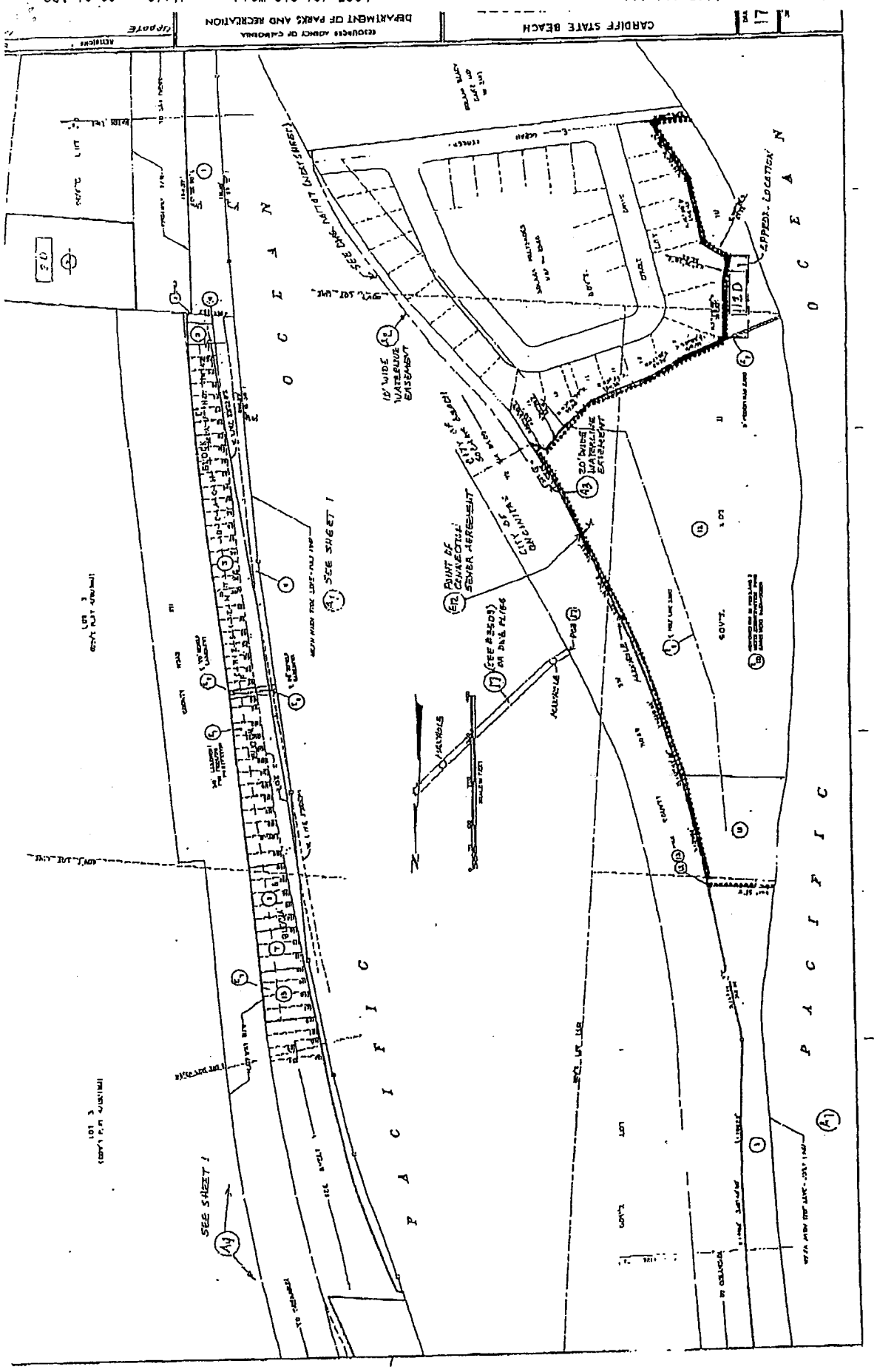
Sincerely,

Ronilee A. Clark

Ronilee A. Clark, Superintendent
San Diego Coast District
California State Parks

Attachments

cc: Tony Perez, Southern Division Chief
Denny Stoufer, N. Sector Superintendent, SD Coast District
Warren Westrup, Chief, Acquisitions and Real Property Services
Rick Raybum, Chief, Natural Resources Division
Syd Brown, Senior State Park Geologist


CARDIFF STATE BEACH
DEPARTMENT OF PARKS AND RECREATION
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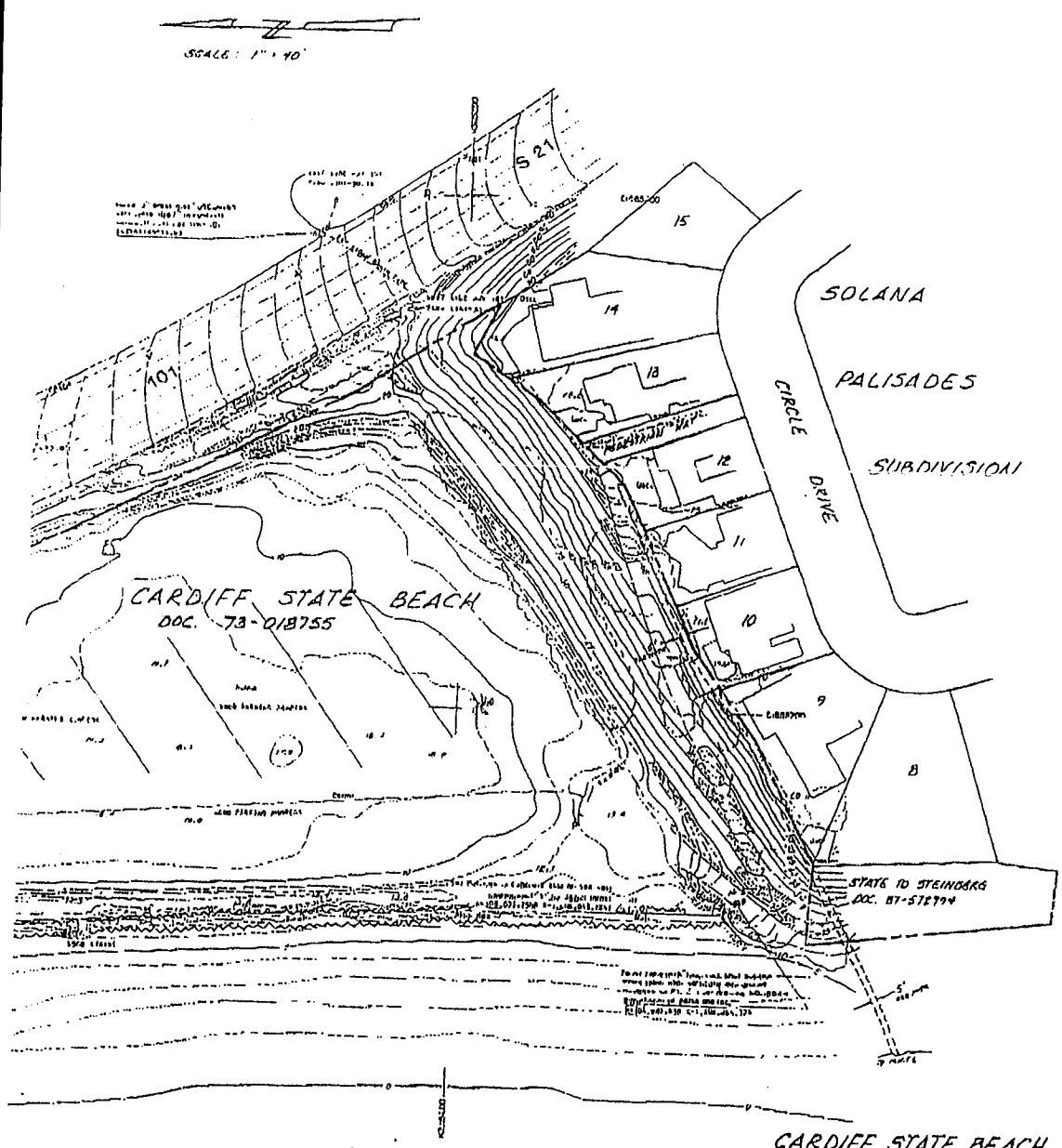


NOTE

APPROXIMATE MEAN HIGH WATER BOUNDARY POSITION COMPUTED FROM: FINAL AGLO PLAT BY D. ADAMSON (DBA, PAR 439), CALTRANS R/W MAPS, 11-SD-5-E-A SHEETS 11 & 12 OF 22 (SURVEY UNIT DWG. PAR 468) AND SOLANA PALISADES SUBDIVISION MAP NO. 2360 (SURVEY UNIT DWG. PAR 3149)

NOT FIELD VERIFIED

5 FOOT WIDE PEDESTRIAN HACK EASEMENT GRANTED TO JACOB D. LISS 4/21/89 PER 3170 OR. 139.

CARDIFF STATE BEACH SOUTH BOUNDARY

SURVEYS & OWNERSHIP SECTION
OCTOBER 1994

TOPO SOURCE:
D.B.A. AERIAL TOPO PREPARED BY SPIESS ENGINEERING AND SURVEYING, INC. FLOWN 3/19/87 (SEE DWG. 15076)

An LUP MUST protect access and recreation in all development including seawalls

- Section 30210 referencing Section 4 of Article X of the California Constitution, which states that it is illegal to prevent access to the water.
- Section 30211 requires that "Development shall not interfere with the public's right of access to the sea..."
- Section 30212(a) protects access to and along the shoreline in development projects. As seawalls are development, this provision must be weighed. Specifically, 30212 (a) states in part that "Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects..."

An LUP MUST protect access and recreation in all development including seawalls

- Section 30220 protects recreational uses: "Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses."
- Section 30221 protects recreational uses: Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

Coastal Act Recreation/Access Policies

- Seawalls in Solana Beach are seaward of the first through public road, on the beach. Coastal Act Sections 30210 through 30213, as well as Sections 30220 and 30221 specifically protect public access and recreation, and state:
  - Section 30210: In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.
  - Section 30211: 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.

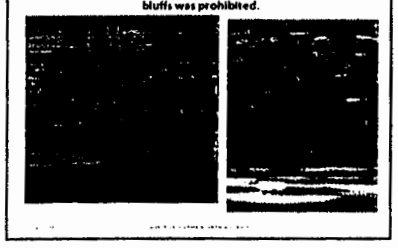
Coastal Act Recreation/Access Policies

- Seawalls in Solana Beach are seaward of the first through public road, on the beach. Coastal Act Sections 30210 through 30213, as well as Sections 30220 and 30221 specifically protect public access and recreation, and state:
  - Section 30212(a): Public access from the nearest public roadway to the shoreline and *along* the coast shall be provided in new development projects...
  - Section 30213: Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. ...
  - Section 30220: Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.
  - Section 30221: Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately *provided* for in the area.

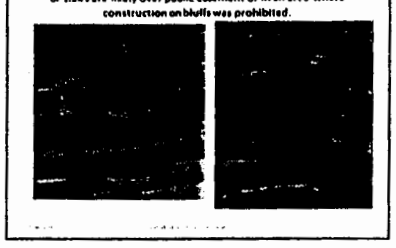
Lynch Case in Encinitas Has Different Facts

- Seawall has no impacts over the 20 year life
  - Not the case in Solana Beach (see earlier slides and comment letter)
  - "According to the Commission's Technical Services Division, the seawall will not directly impede the public access or recreational uses typically considered by the Commission over its 20 year authorization period because there will be no direct encroachment of the proposed development onto public beach area. And, since the proposed wall and the beach platform upon which the proposed wall be constructed are both inland of the mean high tide line, the creation of beach area inland of the proposed seawall location would, for the foreseeable future, also be inland of the mean high tide line. Thus, while the proposed seawall will fix the back of the beach, the effects of fixing the back beach will not have an adverse impact upon available public beach area."

Seascape I 1979 (No Seawall) vs 1987 (Seawall and altered stairs clearly installed after the Coastal Act. Seawall and or stairs are likely over public easement or in an area where construction on bluffs was prohibited.



1972 vs 1979 Del Mar Beach Club – Note that stairway was significantly altered and a seawall built to protect it. Seawall and or stairs are likely over public easement or in an area where construction on bluffs was prohibited.



Options Surfrider Foundation can support

- Do nothing
  - Allow any amendments or clarifications to be considered in preparation of the Local Implementation Plan
- Adopt the proposed amendments as noticed
  - Allow the CCC to either accept, reject or suggest further modifications to the proposed amendments
- Adopt the proposed amendments with suggested changes in our comment letter or May 9th.
  - Allow the CCC to either accept, reject or suggest further modifications to the proposed amendments

BACKUP

Section 4 of Article X of the California Constitution

- No individual, partnership, or corporation, claiming or possessing the frontage or tidal lands of a harbor, bay, inlet, estuary, or other navigable water in this State, shall be permitted to exclude the right of way to such water whenever it is required for any public purpose, nor to destroy or obstruct the free navigation of such water; and the Legislature shall enact such laws as will give the most liberal construction to this provision, so that access to the navigable waters of this State shall be always attainable for the people thereof.

Conflict and Compromise

- 30007.5. The Legislature further finds and recognizes that conflicts may occur between one or more policies of the division. The Legislature therefore declares that in carrying out the provisions of this division such ***conflicts be resolved in a manner which on balance is the most protective of significant coastal resources.***

The Seawall Part of the Coastal Act

- Section 30235 requires that:
- 30235. Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or ***to protect existing structures*** or public beaches in danger from erosion and ***when designed to eliminate or mitigate adverse impacts on local shoreline sand supply.***

Seawall and Bluff Retention Device Permits are More than Section 30235 Typical CCC Staff Report

- Coastal Act Section 30604(c) requires that every coastal development permit issued for any development between the nearest public road and the sea "shall include a specific finding that the development is in conformity with the public access and public recreation policies of [Coastal Act] Chapter 3."
- ***Note Seawalls or Bluff Retention Devices are development and require a Coastal Development Permit***

SURFRIDER FOUNDATION

Surfrider Presentation Solana BeachProposed LUP Amendment

Jim Jaffee, Co-Chair Beach Preservation Committee, Surfrider Foundation and Solana Beach Resident

Options Surfrider Foundation can support

- Do nothing
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- Adopt the proposed amendments as noticed
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- Adopt the proposed amendments with suggested changes in our comment letter or May 9th.
  - Allow the CCC to either accept, reject or suggest further modifications to the proposed amendments

Seawalls Impede Access To The Shoreline

- Four Environmental Impact Reports (EIRs) the city has prepared found that seawalls will impede access to the shoreline (EIR Examples 1-4 are listed in our comment letter.
- Impacts to recreation and coastal access have been identified as a result of the construction of seawalls and other bluff retention devices, therefore under Sections 30604(c) and 30200, specific findings must be made if such impacts were to occur under implementation of the LCP. When a conflict arises between policies,"Section 30007.5 shall be utilized to resolve the conflict and the resolution of such conflicts shall be supported by appropriate findings setting forth the basis for the resolution of identified policy conflicts."

BBC, COOSA and Others Have Accepted Coastal Permit Conditions Similar to the LUP and the LUPA

- BBC President Hamilton permit 6-08-68
  - "The developed mitigation plan covers impacts only through the identified 20-year design life of the seawall. No later than 19 years after the issuance of this permit, the permittees or their successor in interest shall apply for and obtain an amendment to this permit that either requires the removal of the seawall within its initial design life or requires mitigation for the effects of the seawall on shoreline sand supply for the expected life of the seawall beyond the initial 20-year design life."

BBC, COOSA and Others Have Accepted Coastal Permits with findings seawalls impede access

- BBC President Hamilton permit 6-08-68
  - "During the 20 year life of the seawall, as the beach area available to the public is reduced, dry sandy beach will become less available seaward of the seawall such that beachgoers will not want to sit or lay a towel in this area. In addition, over time as the surrounding unprotected bluffs recede, the seawall structure, along with others constructed to the south, will likely impede or completely eliminate public access to the beach south of Tide Beach Park at the subject site."

BBC, COOSA and Others Have Accepted Coastal Permits with mitigation

- BBC President Hamilton permit 6-08-68
  - "During the 20 year life of the seawall, as the beach area available to the public is reduced, dry sandy beach will become less available seaward of the seawall such that beachgoers will not want to sit or lay a towel in this area. In addition, over time as the surrounding unprotected bluffs recede, the seawall structure, along with others constructed to the south, will likely impede or completely eliminate public access to the beach south of Tide Beach Park at the subject site."
  - Hamilton was required to provide for mitigation for this loss of beach access and agreed.

All Development Must Provide Beach Access (It is a right!)

- Section 30212 of the Coastal Act requires "Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects...".
  - This is one of many Coastal Act provisions that gives broad discretion to regulating seawalls.
  - Seawalls or modified seawalls are new development.

City Owned Land Must Not be Deeded to Seawall Developers

- The twenty year provision is legally defensible since the City at any time has the right to forbid the encroachment on its easements or land with seawalls and other such devices. The twenty year renewal should not be automatic and should be discouraged if impacts to access and recreation cannot be mitigated.

Lynch Case in Encinitas Has Different Facts

- Seawall is on private land over the 20 year life
  - Not generally the case in Solana Beach
  - CDP 6-88-464-A2 "However, in this particular case, the proposed seawall will not be located directly on public beach, but rather will be located upland of the mean high tide. In fact, the proposed project places the seawall as far as approximately eight ft. landward of the originally approved seawall, which is a significant reason for approving the proposed 100 ft. wall"

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May 9, 2013 **Delivered via email**

Mr. David Ott
City Manager - City of Solana Beach for distribution to City Council
635 S. Highway 101
Solana Beach, California 92075

RE: Summary of Requested Action for LUP

Dear City Manager Ott,

Thank you for the opportunity to comment on the first proposed amendment of the Land Use Plan (LUP) element of the Local Coastal Plan (LCP) for Solana Beach. In March 2012, the LUP was approved by the Coastal Commission with suggested modifications and was subsequently adopted by the City Council as modified on February 27, 2013. We believe the LUP as adopted is fully compliant with the Coastal Act.

Background

The Solana Beach City Council requested clarification of the intent of the policies in the certified LUP on several occasions. We appreciate the opportunity to work with your staff, David Winkler representing the Beach and Bluff Conservancy (BBC) and Condominium Organization of South Sierra Avenue (COOSSA), as well as the California Coastal Commission (CCC) Staff in bringing these clarified policies as close to consensus as possible.

We remind the Council and the public that even the U.S. Constitution has twenty seven Amendments. The first amendments to the Constitution, the Bill of Rights, were proposed a mere six months after the Constitution went into effect. Compared to the Bill of Rights, the number of policies for which the present LUP requires clarification is small in scope and impact. Those that state otherwise are misguided. We are in favor of the proposed list of amendments as long as they strike a balance in favor of protecting Coastal Resources, as this balance is a core tenet of the Coastal Act. We have crafted our comments with this intent as well as balancing the needs of the local conditions.

Unfortunately, the threat of litigation was part of the amendment negotiation process with Mr. Winkler, making it difficult at best to proceed. We believe that any constructive feedback Surfrider Foundation, the City, or Coastal Staff provided during the process was being crafted into a litigation strategy against the City and the public interest. None of us should waiver in the face of these challenges.

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General Principles

We have two overarching principles in our comments. The first is that seawalls in Solana Beach are generally on public land or easements. No rights to such land should be granted to a private party. Second, seawalls and other development must be intensely conditioned and regulated when impacts to access and/or recreational use of such lands cannot be mitigated. Our basis for this requirement is that as per Section 30604(c) of the Coastal Act, Coastal Development must promote free and open access to the coastline. Therefore, Coastal Development must conform with at least the following Coastal Act Sections (30210, 30211, 30212, 30220, 30221), as well as Section 4 of Article X of the California Constitution[1]. Likewise, per Section 30604(c), any LCP or Coastal Development permit approved under a certified LUP/LCP must comply with the access and recreation policies of Chapter 3 of the Coastal Act, starting at Section 30200. It is encoded within the Coastal Act that discretionary decisions should be weighted in a manner which is most protective of significant coastal resources, including access and recreation:

> "Section 30007.5 Legislative findings and declarations; resolution of policy conflicts:
>
> The Legislature further finds and recognizes that conflicts may occur between one or more policies of the division. The Legislature therefore declares that in carrying out the provisions of this division such conflicts be resolved in a manner which on balance is the most protective of significant coastal resources. In this context, the Legislature declares that broader policies which, for example, serve to concentrate development in close proximity to urban and employment centers may be more protective, overall, than specific wildlife habitat and other similar resource policies."

Seawalls Are Not A Right

A small minority of coastal property owners wishes this body to believe that they have a right to a seawall under Section 30235[2] of the Coastal Act. However, Section 30235 allows for construction of seawalls when designed to protect principal structures in danger from erosion and when designed to mitigate impacts to shoreline sand supply. The position of this vocal minority is in sharp contrast with numerous policies of the Coastal Act and the balance required under Section 30007.5.

Seawalls Impede Access To The Shoreline

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[1] The text of the noted relevant sections of the Coastal Act and Constitution are appended to this document.

[2] The text of the noted relevant sections of the Coastal Act and Constitution are appended to this document.

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The position that this interpretation of a right to seawalls should supercede other provisions more protective of coastal resources, including access and recreation, is in direct conflict with the findings in numerous Environmental Impact Reports (EIRs) the city has prepared. These EIRs have found that seawalls will impede access to the shoreline (EIR Examples 1-4 follow):

EIR Example 1

As recently as the Draft Integrated Feasibility Study & Environmental Impact Statement/ Environmental Impact Report developed by the Army Corps of Engineers (ACOE) for the Encinitas-Solana Beach Coastal Storm Damage Reduction Project[3] released in December 2012, seawall construction would result in the complete loss of recreational beaches. Page 320 reads,

> 5.1.4 Potential Environmental Impacts of the No Action Alternatives (EN-3 and SB-3)
>
> Under Alternatives EN-3 and SB-3, the No Action Alternative, baseline conditions and trends are assumed to continue over the next 50 years. This alternative assumes the continued piecemeal approach to shoreline protection, including maintenance of existing structures and construction of seawalls along all remaining unprotected segments of shoreline in Encinitas and Solana Beach. Under certain sea level rise predictions, the No-Project Alternative would result in a complete loss of the beaches (for shoreline protective and recreational benefit) and accelerated shoreline and bluff erosion.

Page 458 explicitly states that recreation, including surfing, will be impacted by seawalls.

> 5.12.4 No Action Alternative
>
> Under the No Action Alternative, there would be the potential for further loss of recreational uses as beaches continue to erode and coastal bluffs continue to retreat with corresponding individual seawall permit proposals over the next 50 years. Erosion of beaches would limit the amount of space on which beach goers can recreate. In some areas, loss of sand may limit access along the coastline. Beach and bluff erosion pose a threat to park facilities including beach access paths and stairs, parking areas, and other facilities close to the edge of the bluffs. It is probable that under the 50-year without project condition, one or more major storms would result in damage to coastal park facilities, coastal access paths, and/or stairs.
>
> Loss or degradation of recreational opportunities under the No Action Alternative would increase the impacts within the next 50 years as demands for coastal recreation increase. Population growth, combined with a decrease in open space as residential

[3] http://www.spl.usace.army.mil/Missions/CivilWorks/ProjectsStudies/SolanaEncinitasShorelineStudy.aspx

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and commercial development increase, means more people would be seeking recreational opportunities in the project area. Therefore, loss of recreational facilities under the No Action Alternative would affect increasing numbers of people. Furthermore, if some parking areas, beach access points, or beaches themselves are lost due to storm damage, the pressure on remaining parking and access areas would increase. The increased pressure on remaining areas would degrade the recreational experience for many, as parking becomes difficult to find and more people are crowded into smaller areas.

A substantial long term loss of recreational opportunities including surfing could result under the No Action Alternative.

EIR Example 2

In 2002, the City released a Master Environmental Impact Report (MEIR) on its approval process over seawalls and notch fills. The city re-certified this document in 2007.[4] This document also acknowledged that the approval of seawalls and similar structures in Solana Beach would have adverse impacts on recreation and access.

> "The No Project Alternative and subsequent projects would have significant long-term impacts to recreation and lateral public access from the construction of seawalls and sea cave notch fills and aesthetics from the construction of seawalls." (page S-8 to S-13 and page 6-1)

EIR Example 3

In revising its Shoreline Ordinance in 2007 with the approval of Ordinance 351, the City adopted a Statement of Overriding Considerations noting that the the impacts of seawalls, notch fills,

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[4] http://www.ci.solana-beach.ca.us/vertical/sites/%7B840804C2-F869-4904-9AE3-720581350CE7%7D/uploads/SB_Shoreline_Report.pdf

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and sand replenishment could not be mitigated at the time of adoption, but that the LCP under consideration would address these at some time in the future.[5]

EIR Example 4

The RBSPII EIR similarly concludes there are adverse impacts from seawalls on page 7-7:[6]

> "Steep cliffs (approximately 80 feet tall) abut the Solana Beach receiver site and the beach consists of a gently sloping sand beach with scattered rocks and cobbles. Riprap, notch fills, and seawalls line the cliffs in an ongoing effort to slow wave-induced erosion. At high tide, no dry beach exists along the majority of the receiver site as waves reach the cliffs and existing sea walls. Similar to the Oceanside and North Carlsbad receiver sites, less sand was present along the cliffs and sea walls in June 2010 compared to September 2009. Several pocket beaches exist along the receiver site, with a small sandy beach at Fletcher Cove, which sits above the high tide mark."

Specific impacts to recreation and coastal access have been identified as a result of the construction of seawalls and other bluff retention devices, therefore under Sections 30604(c)

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[5] From Ordinance 351 Approval,
"SECTION 3.
1. In accordance with CEQA Guidelines sections 15091, 15092 and 15093, the City Council finds that significant environmental effects of the Project will be mitigated to less than significant levels by the mitigation measures adopted by the City, with the exception of certain impacts to Aesthetics, Geology and Soils, and Recreation and Public Access, which though substantially lessened by adopted mitigation measures, are nevertheless still considered significant and unavoidable.
2. Council hereby makes and adopts CEQA Findings of Fact as contained in Exhibit A hereto.
3. The City Council hereby adopts a Statement of Overriding Considerations, as contained in Section XII of Exhibit A hereto, explaining how the benefits of the Project in balancing the competing private and public interests and taking a proactive approach to shoreline and coastal bluff protection and favoring smaller shoreline defense structures, among other considerations, justify the Project's significant and unavoidable impacts."
and
6. Direct staff to implement, as soon as possible, all appropriate actions to establish and begin collecting Land Lease Fees and Sand Mitigation Fees, in a manner consistent with the Draft LUP. The fee structure will include a mechanism for credits or other procedures to prevent duplicative fees assessed by other agencies for the same purposes as the City imposed fees.
7. By adopting this Ordinance, including Section XII of Exhibit A attached hereto, the City has satisfied its obligation pursuant to Public Resources Code section 21081, subdivision (b), which requires the issuance of a Statement of Overriding Considerations whenever a project's environmental effects cannot be mitigated to less than significant levels."

[6] http://www.sandag.org/uploads/projectid/projectid_358_14427.pdf

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and 30200, specific findings must be made if such impacts were to occur under implementation of the LCP. Section 30604(c) requires every Coastal Development Permit, including those that might be approved under a certified LUP/LCP, to comply with the access and recreation policies of Chapter 3 of the Coastal Act starting at Section 30200. Section 30200 of the Coastal Act requires that an LCP and/or development comply with all elements of Chapter 3 including those protective of access and recreation. When a conflict arises between policies,"Section 30007.5 shall be utilized to resolve the conflict and the resolution of such conflicts shall be supported by appropriate findings setting forth the basis for the resolution of identified policy conflicts."

LCP Must Protect Coastal Access and Recreation

As mentioned, numerous policies protect access to the coast, access along the coastline, and recreational resources. An LCP must comply with the following:

- Coastal Act Sections 30210 through 30212, as well as Sections 30220 and 30221, which specifically protects public access and recreation.
- Section 30210 referencing Section 4 of Article X of the California Constitution, which states that it is illegal to prevent access to the water.
- Section 30211 requires that "Development shall not interfere with the public's right of access to the sea..."
- Section 30212(a) protects access to and along the shoreline in development projects. As seawalls are development, this provision must be weighed. Specifically, 30212 (a) states in part that "Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects..."
- Section 30220 protects recreational uses: "Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses."
- Section 30221 protects recreational uses: Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

All of the above noted sections are absolute in that they contain a "shall" in reference to protecting Coastal Access and Recreation. Many wish to convince this body that these "shall's" protecting access and recreation should be eliminated or ignored in favor of the 30235 "shall" in permitting seawalls. However, the Section 30235 provision permitting seawalls is limited. It allows seawalls only under certain conditions, and under all and any of these conditions it must comply with 30604(c) 30200, 30007.5 and all policies relating to access and recreation.

Inconsistencies between Public Record and Filed Lawsuits

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Specific to the litigation and LUP amendments at hand, many of the signatories of the lawsuits against the City for the City's adoption of the LUP, accepted Conditions and Findings from the Coastal Commission in sharp contrast to the positions they now take. For example, BBC President Hamilton in his acceptance of Coastal Development Permit (CDP) 6-08-68[7] approved at the February 2009 Coastal Commission meeting, accepted the following conditions, acknowledged the impacts of seawalls, agreed to a permit life if mitigation cannot be achieved, and agreed that public rights including ownership would not be waived via Coastal Commission approval of a CDP.

CDP 6-08-68: Acknowledges Impact and Permit Life

> "2. Mitigation for Impacts to Sand Supply. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall provide evidence, in a form and content acceptable to the Executive Director, that a fee of $17,297.44 has been deposited in an interest bearing account designated by the Executive Director, in-lieu of providing the total amount of sand to replace the sand and beach area that will be lost due to the impacts of the proposed protective structure."...
>
> "The developed mitigation plan covers impacts only through the identified 20-year design life of the seawall. No later than 19 years after the issuance of this permit, the permittees or their successor in interest shall apply for and obtain an amendment to this permit that either requires the removal of the seawall within its initial design life or requires mitigation for the effects of the seawall on shoreline sand supply for the expected life of the seawall beyond the initial 20-year design life. If, within the initial design life of the seawall, the permittees or their successor in interest obtain a coastal development permit or an amendment to this permit to enlarge or reconstruct the seawall or perform repair work that extends the expected life of the seawall, the permittee shall provide mitigation for the effects of the seawall on shoreline sand supply for the expected life of the seawall beyond the initial 20-year design life."
>
> "3. Mitigation for Impacts to Public Access and Recreational Use. PRIOR TO COMMENCEMENT OF CONSTRUCTION, the applicants shall provide evidence, in a form and content acceptable to the Executive Director, that the interim mitigation fee of $50,000.00, required by the City of Solana Beach to address adverse impacts of the shoreline protection on public access and recreational, has been satisfied."
>
> "11. Public Rights. The Coastal Commission's approval of this permit shall not constitute a waiver of any public rights that exist or may exist on the property. The

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[7] CDP 6-08-68 Staff report is available at http://documents.coastal.ca.gov/reports/2009/2/F8a-2-2009.pdf

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> permittee shall not use this permit as evidence of a waiver of any public rights that exist or may exist on the property."

A similar condition was attached to the permit of David Winkler on permit CDP 6-08-122[8] and for Surfsong on permit 6-03-33[9]. Numerous other permits have similar conditions and have been accepted by COOSSA members, BBC members, and/or officers or representatives of these two litigious organizations (including attorney Jon Corn).

6-08-68 Acknowledges Seawalls Cause Loss of Beach

In addition to accepting the above conditions, Hamilton accepted the following language in his Staff Report that explained the nexus of his seawall fixing the back of the beach thereby impeding access. From the Staff report for approval of 6-08-68 accepted by Hamilton.

> "During the 20 year life of the seawall, as the beach area available to the public is reduced, dry sandy beach will become less available seaward of the seawall such that beachgoers will not want to sit or lay a towel in this area. In addition, over time as the surrounding unprotected bluffs recede, the seawall structure, along with others constructed to the south, will likely impede or completely eliminate public access to the beach south of Tide Beach Park at the subject site.
>
> As explained in Section 2 of this report, the proposed seawall will result in the encroachment and the fixing of the back of the beach, which will result in the immediate loss of 100 square feet of beach and after 20 years, with no recession of the bluff, will result in the loss of a total approximately 370 square feet of public beach. The sand that would have reached the beach were it not for the proposed seawall is generally mitigated by the applicant's proposal to pay an in-lieu fee for the purchase of an equal amount of sand for future placement. However, the loss of this approximately 370 sq. ft. of recreational area is not mitigated by the one-time placement of sand since that area will not be available for public use (or placement of sand) over the estimated 20 year life of the seawall. Since any loss of public beach area will significantly affect public access and recreational opportunities along the beach adjacent to Tide Beach Park, additional mitigation is required.
>
> Development along the shoreline which may burden public access in several respects has been approved by the Commission. However, when impacts can't be avoided and have been reduced to the maximum extent feasible, mitigation for any remaining

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[8] CDP 6-08-122 Staff report is available at http://documents.coastal.ca.gov/reports/2009/6/Th15a-6-2009.pdf

[9] CDP 6-03-33 Staff report is available at http://documents.coastal.ca.gov/reports/2009/3/W20a-3-2009.pdf

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adverse impacts of the development on access and public resources is always required."

Specific Amendment Comments

We offer the following comments with respect to the Suggested Amendments with the identified impacts to access and recreation in mind. Where we offer no comment, we generally believe at this time that the additions are useful in the proposed amended LUP and provide more guidance for the drafting of the LIP.

1. Proposed amendment to policy 2.7 and the original 2.7 are inconsistent with at least Section 30212 of the Coastal Act which requires "Public access from the nearest public roadway to the shoreline and along the coast ***shall be provided in new development projects...***". Proposed Section 2.7 reads, "New development shall be sited and designed to avoid impacts to public access and recreation along the shoreline and trails. If there is no feasible alternative that can eliminate or avoid all access impacts, then the ***feasible*** alternative that would result in the least significant adverse impact shall be required." The added language on feasibility is not included in the corresponding Section of the Coastal Act. In fact, this provision has somehow shifted "shall" language in the original Coastal Act provision to "avoid" language. Better language for this provision would be, "New development shall be sited and designed to ***provide*** ~~avoid impacts to~~ public access and recreation along the shoreline and trails. If there is no feasible alternative that can ***provide public*** ~~eliminate or avoid all~~ access ~~impacts~~, then the alternative that would result in the least significant adverse impact ***to access*** shall be required."

2. Proposed Amendments to policies 2.60 and 2.60.5 - Private beach stairways are non-conforming uses inconsistent with at least Coastal Act sections 30251 and 30253. Sections 30251 and 30253 protect alteration of views and natural landforms. The proposed amendment adds language clarifying that rebuilding more than 50% of a private stairway constitutes new development. As previously noted, new development under Section 30212 requires for access to and along the shoreline. The proposed amendment language is not as strict as to require such access unless the stairways are on public lands or easements. We believe that this limitation requires further analysis and if not required should be eliminated.

It is also unclear if the few private stairways covered by Section 2.60 are subject to easements or were developed in areas that prohibited development on the bluffs at the time of such development and were either completed over public access easements or encroached on areas where development was prohibited.

Much is being said regarding the development history of the stairways in Solana Beach. In particular, Seascape I claims that, "The stairway in our community, Seascape I, was installed prior

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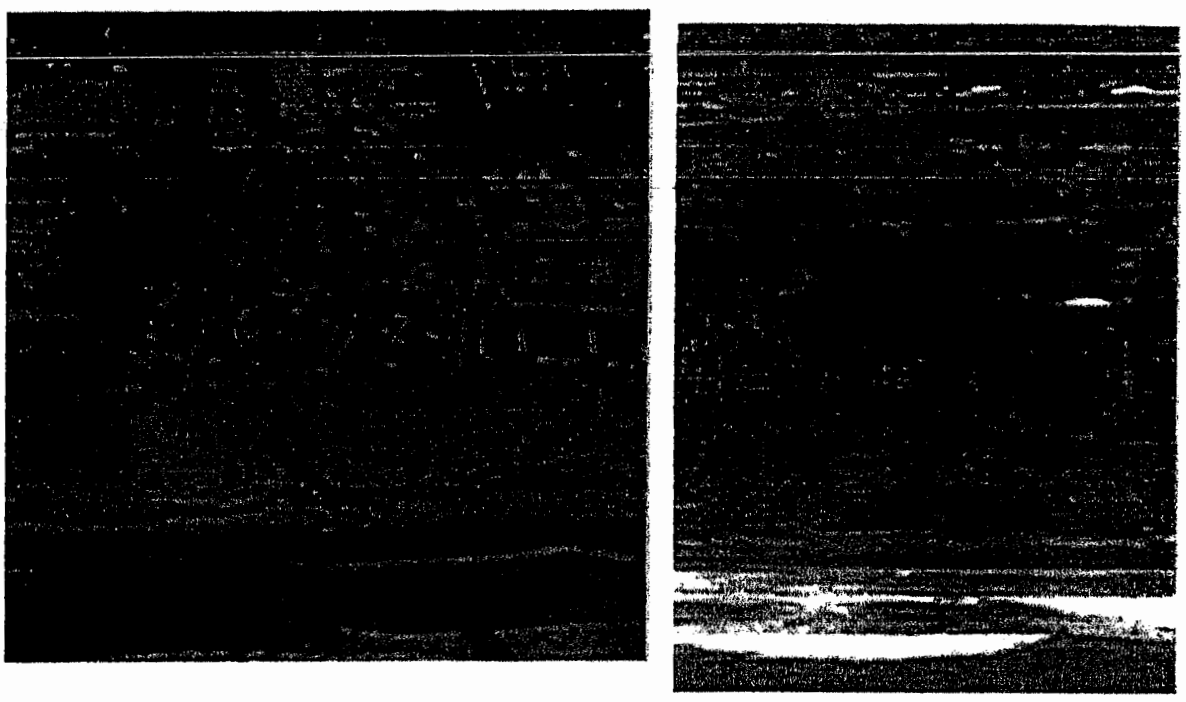
to February 1, 1973 (the effective date of the Coastal Conservation Act). Our Homeowners Association has a vested legal right to the continued existence of this stairway."

While it may be true there was a stairway that existed prior to the Coastal Act effective date, the stairway as it now exists, did not exist prior to the Coastal Act. Sometime after 1979, the stairway was significantly reconstructed and a seawall was added to protect the stairs and possibly to protect the structures above. This is shown in the Figure below.

Seascape 1 1979 (No seawall) vs 1987 (seawall and altered stairs clearly installed after the Coastal Act. Seawalls and/or stairs are likely over public easement or in an area where construction on bluffs was prohibited



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Therefore it is not clear if Seascape indeed has a vested right as alleged. The stairway and seawall appears to be new development after the Coastal Act.

It is also unclear how stairways were permitted under zoning ordinances at the time of development. While a title search has not revealed any easements on the bluff face, it is our understanding that the Coastal Development Overlay Zone as well as the interim Shoreline Ordinance (Ord. No. 3534) prohibited development on Coastal Bluffs. One or both of these may have been the instrument to approve such stairways if indeed they were approved at all. Therefore the right to build stairs on the bluff should have required an easement. The Coastal Act does not waive rights to such easements where they exist. Additionally the title report is not insured for failure to record such easements. Specifically, the title report reads,

> "EXCEPTIONS FROM COVERAGE
>
> This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:
>
> 3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records."

Similar to Seascape I, Del Mar Beach Club appears to have added its final stair configuration and the seawall that now protects it after the Coastal Act enforcement. As shown in the Figure below, there is even a record of Coastal Permit for the seawall. In 1980, the Commission approved the construction of an approximately 540 foot-long, 15 foot-high concrete seawall at the base of the bluff below the condominiums (CDP #F4051/Del Mar Beach Club [DMBC]).

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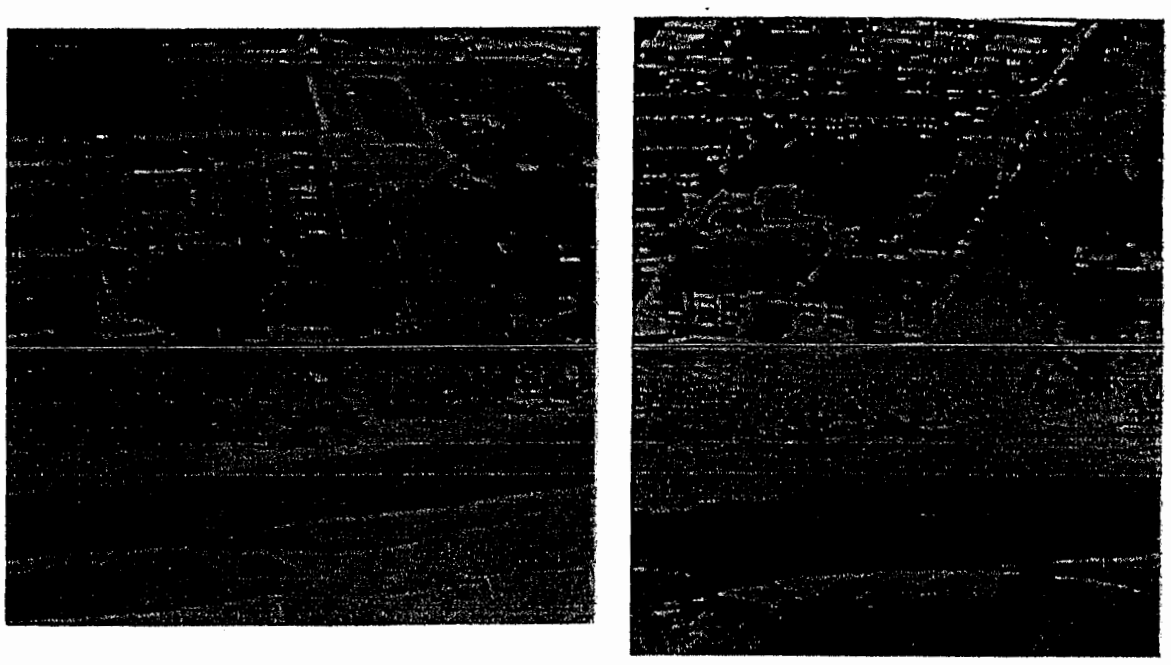
1972 vs 1979 Del Mar Beach Club - Note that the stairway was significantly altered and a seawalls built to protect it. Seawall and/or stairs are likely over public easement or in an area where construction on bluffs was prohibited.



Similar evidence as shown for Seascape I and DMBC exists for the stairway at Seascape Shores, specifically a seawall was installed after the Coastal Act and the Stairs were reconfigured.

The intent of providing this information is to provide policymakers with a more complete understanding of any perceived vested rights. It is not clear what has been put in the public record thus far.

Again as mentioned, new development of the small number of private stairways triggered by more than 50% cumulative reconstruction must provide access to the shoreline as required in Section 30212 and must avoid alteration of natural landforms per Section 30251. Therefore, the proposed amendment is less restrictive than the Coastal Act as drafted and limitations on feasibility must be eliminated.

3. The proposed language adding "where feasible" in the Section titled 'Caisson and Tieback Alternatives' (starting on Page 3 of the March 27 proposed amendments) is inconsistent with Section 30251 of the Coastal Act. Specifically, 'where feasible' should be removed from the language requiring that caissons "avoid alteration of the natural

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landform of the bluffs ~~where feasible~~". 30251 does not include this limitation. Other revisions in the Caisson section Amended language provide property owners with specific criteria for approval and design. These additions are useful in the proposed amended LUP and provide more guidance for the drafting of the LIP.

4. The amended language in 4.14 provided additional clarification of the LUP policy intent as to what constitutes Bluff Top Redevelopment and allows for maintenance of existing structures not deemed as Bluff Top Redevelopment. These additions are useful in the proposed amended LUP and provide more guidance for the drafting of the LIP.

5. The deletion of Policy 4.18, and addition of Policies 4.25, 4.25.5, 4.25.6, 4.57 are not consistent with either the Coastal Act Section 30253 nor with the intent of the original approved LUP. There are a few issues to cover with these Policies.

1. Section 30235 requires that, "New development shall do all of the following: ...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." The original policy 4.18 had an implicit equivalent shall requirement that new development could not rely on a bluff retention devices in a setback calculation. The proposed amendment now adds this policy to 4.25 however the language has been change from "shall" to "should". The clause in Policy 4.25 must be changed as follows in order to comply with 30253 "Any existing bluff retention devices ***shall*** ~~should~~ not be factored into the establishment of the GSL for the proposed blufftop development."

2. Policy 4.57 incorporates the element originally in the proposed deleted Policy 4.18 regarding the expansion/alteration of existing legally permitted bluff retention devices. The addition of the assessment of the impacts of the bluff retention device to public access and recreation are welcome and required to comply with 30604(c) and the requirement that a CDP comply with all Chapter 3 policies on access and recreation as well as applying for a new 20 year permit. It would be even more clear if the the last sentence were modified as follows, "that adequate mitigation for impacts to the public ***access and recreation*** ~~beach~~ has been provided."

3. An additional but important point with respect to the twenty year provision in these policies, the City at any time has the right to forbid the encroachment on its land with seawalls and other such devices. The twenty year renewal should not be automatic and should be discouraged if impacts to access and recreation cannot be mitigated.

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4. The remaining proposed modifications to 4.25, including 4.25.5 and 4.25.6, that provide guidance and exceptions for new development criteria are useful in the proposed amended LUP and provide more guidance for the drafting of the LIP.

6. With respect to mitigation fees (4.54 and elsewhere as applicable)

1. In the proposed amendment to Section 4.54 and elsewhere, the term "near term … project" is indefinite and troublesome. A definition is needed. Capital improvement projects for access such as stair replacement, conversion of parklands such as the one at Ocean Street and at the southern border of Solana Beach must be funded over the long term. Thus it is not clear that these important projects would qualify as "near term….project(s)" as funding for these projects must occur over the long term. Acquisition and renting of blufftop property for funding of ultimate removal are additional projects with long timelines.

2. We strongly believe that Sand Mitigation fees must only be used for restoring lost sand and that Land Lease and Recreation Fees only be used for these impacts. There is a nexus to these specific impacts. If the city were to allow discretion for Recreation Fees to be used for sand then the converse should also be true. Sand Fees could be used for access. In fact, the funding for the stairs project at Del Mar Shores (Rockpiles) is a near term project that might benefit from the sand fees if they were made available. Therefore, we agree that the new language clarifies this point.

3. Policy 4.51 must be clear that mitigation fees apply to all types of coastal armoring including Coastal Structures, upper bluff retention, in addition to to the language already included for notch fills and seawalls. References specifying assessment of such fees must be included in the specific sections for approval all such structures.

4. Policy 4.54 – In a previous versions of the proposed language that ultimately became the LUP Amendment, City staff voiced concern that "Upon further review, there is a question as to why Policies 4.51 (coastal structures which would include seawalls) and 4.54 (upper bluff systems) do not include a section similar to 4.50(c), setting forth financial and mitigation requirements for the applicant." Any coastal structure should be subject to fees and encroachment permits.

7. Bluff Top Redevelopment definition – Omitting Interior Load Bearing Walls from the "Bluff Top Redevelopment" definition (Chapter 8) is problematic. We prefer that it is more inclusive, and this is consistent with what the Coastal Commissioners envisioned at last year's hearing. The language as drafted may allow a savvy owner to avert the intent by using footings tied to headers that provide significant redevelopment without altering the overall foundation or exterior framing significantly.

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In summary, we have cited specific policies for our position in protecting the public's interest in (among other things) public access, public recreation opportunities, visual impacts, natural coastal ecosystems, coastal water quality, and wave integrity. We ask that the council also make their decisions on the LUP based on the protection of the public interest in maintaining public ownership of public lands and providing for access and recreation in development.

Regards,

Jim Jaffee
Advisor, San Diego County Chapter of the Surfrider Foundation
Resident of Solana Beach

Kristin Brinner
Beach Preservation Committee Communications Chair, San Diego County Chapter of the Surfrider Foundation
Resident of Solana Beach

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Appendix - Relevant Coastal Act and other Law

Section 4 of Article X of the California Constitution

No individual, partnership, or corporation, claiming or possessing the frontage or tidal lands of a harbor, bay, inlet, estuary, or other navigable water in this State, shall be permitted to exclude the right of way to such water whenever it is required for any public purpose, nor to destroy or obstruct the free navigation of such water; and the Legislature shall enact such laws as will give the most liberal construction to this provision, so that access to the navigable waters of this State shall be always attainable for the people thereof.

30007.5 The Legislature further finds and recognizes that conflicts may occur between one or more policies of the division. The Legislature therefore declares that in carrying out the provisions of this division such conflicts be resolved in a manner which on balance is the most protective of significant coastal resources. In this context, the Legislature declares that broader policies which, for example, serve to concentrate development in close proximity to urban and employment centers may be more protective, overall, than specific wildlife habitat and other similar resource policies.

30604 (c) Every coastal development permit issued for any development between the nearest public road and the sea or the shoreline of any body of water located within the coastal zone shall include a specific finding that the development is in conformity with the public access and public recreation policies of Chapter 3 (commencing with Section 30200).

30200. (a) Consistent with the coastal zone values cited in Section 30001 and the basic goals set forth in Section 30001.5, and except as may be otherwise specifically provided in this division, the policies of this chapter shall constitute the standards by which the adequacy of local coastal programs, as provided in Chapter 6 (commencing with Section 30500), and the permissibility of proposed developments subject to the provisions of this division are determined. All public agencies carrying out or supporting activities outside the coastal zone that could have a direct impact on resources within the coastal zone shall consider the effect of such actions on coastal zone resources in order to assure that these policies are achieved.

(b) Where the commission or any local government in implementing the provisions of this division identifies a conflict between the policies of this chapter, Section 30007.5 shall be utilized to resolve the conflict and the resolution of such conflicts shall be supported by appropriate findings setting forth the basis for the resolution of identified policy conflicts.

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

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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.

30212. (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 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.

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(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.

Section **30220** Protection of certain water-oriented activities: Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

Coastal Act Section **30221**: Oceanfront land suitable for recreational use shall be protected for recreational use and development, unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

30235 Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fishkills should be phased out or upgraded where feasible.

30251 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.

30253. New development shall do all of the following:

(a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

(b) 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.

(c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development.

(d) Minimize energy consumption and vehicle miles traveled.

(e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.

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January 3, 2014

Delivered via email

To: Eric Stevens
California Coastal Commission
7575 Metropolitan Drive Ste 103
San Diego, CA 92108-4402

Re: Item Th7d: Staff Recommendations on the City of Solana Beach Major Amendments SOL-MAJ-1-13 for Commission Meeting of January 9, 2014

Dear Mr. Stevens,

The Surfrider Foundation San Diego County Chapter recognizes beaches as a public resource held in the public trust. Surfrider Foundation is an organization representing 250,000 surfers and beach-goers worldwide that value the protection and enjoyment of oceans, waves and beaches. For the past decade, San Diego Chapter has reviewed and commented on coastal construction projects and policy in San Diego County. We appreciate the opportunity to provide comments to the California Coastal Commission about these important issues.

We are opposed to the Staff Recommendation concerning the amendments proposed to the Solana Beach Land Use Plan (LUP) unless the following changes are made. Justifications for each of our changes are included below in more detail.

1. Sea wall coastal development permit (CDP) lifetime should be limited to 20 years, as was stated in the City's LUP amendment. In addition, at the 5 year monitoring point, the 20 year reauthorization, or any time in between, seawalls that are found to impede access or recreation must be removed or relocated. A policy should be crafted to enforce protection of access and recreation.

2. Erodible concrete is a myth with no data to support the claim that it erodes at the same rate as the bluff. There is also no data that a low pounds per square inch (PSI) fill that may be removed would be effective or has been installed to support the load of the bluffs. Regardless, since infills will fix the bluff drip line instead of allowing the cave to collapse, mitigation is appropriate. The present policies have no mitigation and they also lack scientific evidence of erodibility.

3. Sea walls are not an absolute right. This staff report includes only a restrictive interpretation by citing Coastal Act section 30235 without also citing balancing sections of

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Letter of Opposition 29

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the Coastal Act including all aspects of Chapter 3 per 30604c and balancing provision of 30007.5.

1. Permit lifetime should be limited to 20 years and tied to public beach access

The City of Solana Beach has certified its LUP to have a 20 year CDP lifetime (Policy Nos. 4.18, 4.47, 4.48, 4.51, and 4.52). However, Staff has unnecessarily weakened this by recommending that in place of a fixed 20 year authorization period, the timeframe for authorization of permits for new seawalls, or alterations or expansion of existing seawalls, be as long as the structure requiring protection still exists. We oppose this recommendation by staff.

Other parties have objected to the concept of a fixed 20 year permit lifetime as an arbitrary time period. However, the design life of seawalls is not an arbitrary time period, and most seawalls are projected by the applicants and their responsible engineers or geotechnical experts to have design lifetimes of approximately 20 years. This design life is well documented in many documents submitted to the Coastal Commission when Solana Beach blufftop homeowners sought CDPs for seawalls. They document the design life in the methodologies used for calculating mitigation. We believe that 20 years is not arbitrary and that 20 years is fairly equivalent to the design lifetime of a seawall. Additionally, we believe that CDP expiration needs to be tied to the 20 year period OR redevelopment of the property being protected, whichever comes first. The CDP should only be valid until the current structure is redeveloped or the design life of the seawall expires. In the event that the seawall is repaired or modified, a new CDP should be developed, not just an amendment to an existing CDP, as local conditions will likely have changed considerably.

As staff states on p4:

> "One concern regarding a possible future scenario for Solana Beach is, if the entire shoreline is armored and sea level rises, there may no longer be a public beach. In the future, it may no longer be possible to provide adequate mitigation for the impacts that shoreline armoring causes to public beaches."

We agree with staff's assessment that in the future because of seawall armoring and sea level rise there may be no public beach. Because of this scenario, in addition to the 20 year CDP lifetime, CDP lifetime should also be tied to loss of public beach access. As we have pointed out in a previous letter to the Commission (November 14, 2013), blocking access to the shoreline is not permitted under California Coastal Act Section 30604c and the associated Access (California Coastal Act Section 30210-30214) and Recreation (California Coastal Act

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Section 30220-30224) provisions. Without such protection, no findings for consistency with this provision can be made in support of the LUPA.

We do not believe that California Coastal Act Section 30235 provides a right to a shoreline protective device for an existing structure at all cost. California Coastal Act Section 30235 must be balanced with the other provisions of the Coastal Act that require access to the sea. For this reason, and in order to make the LUPA comply with the Coastal Act, the Commission should add an additional special condition similar to our suggested language here "If lateral access to a dry sandy beach seaward of a permitted shoreline protective device is blocked more than 50% of the time, or at 50% of high tides, this should trigger reassessment of the CDP including the need to remove the shoreline protective device and mitigation fees."

Such conditions are typical in a Local Coastal Program (LCP). By way of example the City of Carlsbad has a certified a Coastal Shoreline Development Overlay Zone as a component of its LCP. Within that component are the following provisions:

21.204.060 Requirements for public access.

One or more of the following types of public access shall be required as a condition of development:

A. Lateral Public Access.

1. Minimum Requirements. Developments shall be conditioned to provide the public with the right of access to a minimum of twenty-five feet of dry sandy beach at all times of the year. The minimum requirement applies to all new developments proposed along the shoreline requiring any type of local permit including a building permit, minor land division or any other type of discretionary or nondiscretionary action.
2. Additional Requirements. New developments as specified below shall be conditioned to provide the public with lateral public access in addition to minimum requirements.

a. Applicability.

(1) Seawalls and other shoreline protective devices."

As proposed, the Solana Beach LUPA has no similar provision to Carlsbad to ensure access is possible in shoreline protective device permits. Such a guarantee of public access would also need to be consistent with California Coastal Act 30220 which states that surfing shall be protected:

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> "Protection of certain water-oriented activities: Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses."

In summary, 30604c requires that an LUP and Local Coastal Program (LCP) comply with access policies of the Coastal Act. We have provided a basis to make such a finding. Without our suggested modifications, we do not believe the findings of compliance can be made.

On page 14, in addition to a 5-year monitoring period, monitoring results should include quantitative assessments of whether access is prevented or predicted to be impeded over the monitoring period and what measures must be taken to prevent loss of access and recreation including but not limited to the removing or relocating the seawall at a more landward location. This could also be triggered by the Encroachment/Removal provisions elsewhere in the LUP.

On page 15, upper- and mid-bluff shoreline protective devices (SPD) will be reassessed every 20 years as well, including monitoring every 5 years. Language should be included in the LUP that impacts created by upper- and mid-bluff SPD will trigger removal or other mitigation based on the degree of the impacts.

On page 34, a scenario is presented as follows:

> "There may be circumstances where existing shoreline armoring cannot be immediately removed when no longer needed to protect the threatened structure that it was constructed to protect."

This type of scenario emphasizes the importance of regular reassessment of seawalls and SPDs to prevent this situation from happening in the first place.

2. Erodible concrete lacks scientific evidence of erodibility and seacave notchfills should be mitigated

We object to the staff's suggested addition to Chapter 4 Hazards and Shoreline Bluff Development (page 10):

> "Infill/Bluff Stabilization – Seacave/Notch Infill (See Appendix B Figure 1A) – This first solution is designed to address sea caves and undercut portions of the lower dense sandstone bluff where the clean sand lens is not yet exposed. If left uncorrected, the sea cave/undercut will eventually lead to block failures of the lower sandstone, exposure of the clean sand lens and landward bluff retreat. This failure exposes the clean sand lens of

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the upper bluff terrace deposits triggering rapid erosion and landward retreat of the upper bluff, which eventually endangers the structures at the top of the bluff. If treated at this stage, the Bluff Retention Device will minimize the need for a future higher seawall and future upper bluff repair. This alternative is not designed as a structural wall, is not reinforced, does not include tiebacks, and uses only erodible concrete which shall erode at the same erosion rate as the surrounding natural bluff material. The infill is required to maintain a textured and colored face mimicking the existing bluff material. Erodible concrete seacave/notch infills are not subject to the sand supply mitigation, public access and recreation mitigation, encroachment/removal agreement, or authorization timeline policies of the LUP."

Concrete has not been demonstrated to erode. In order for concrete to be removed without backhoes or similar equipment, it must be designed to be removed with minimal disruption. Literature from standard setting organizations (ACI 229R-99 from the American Concrete Institute as approved in 2005 http://www.azmag.gov/Documents/pdf/cms.resource/ACI229_-_CLSM46175.pdf) offers the following:

"4.3.7 Excavatability— The ability to excavate Controlled Low Strength Material (CLSM) is an important consideration on many projects. In general, CLSM with a compressive strength of 0.3 MPa (50 psi) or less can be excavated manually. Mechanical equipment, such as backhoes, are used for compressive strengths of 0.7 to 1.4 MPa (100 to 200 psi) (Fig. 4.1). The limits for excavatability are somewhat arbitrary, depending upon the CLSM mixture. Mixtures using high quantities of coarse aggregate can be difficult to remove by hand, even at low strengths. Mixtures using fine sand or only fly ash as the aggregate filler have been excavated with a backhoe up to strengths of 2.1MPa (300 psi). When the re-excavatability of the CLSM is of concern, the type and quantity of cementitious materials is important. Acceptable long-term performance has been achieved with cement contents from 24 to 59 kg/m3 (40 to 100 lb/yd3) and Class F fly ash contents up to 208 kg/m3 (350 lb/yd3). Lime (CaO) contents of fly ash that exceed 10% by weight can be a concern where long-term strength increases are not desired. Because CLSM will typically continue to gain strength beyond the conventional 28-day testing period, it is suggested, especially for high cementitious-content CLSM, that long-term strength tests be conducted to estimate the potential for re-excavatability. In addition to limiting the cementitious content, entrained air can be used to keep compressive strengths low."

No known installation with a mix in the PSI ranges specified has been built in Solana Beach. It would seem appropriate to create a standard instead of accepting anecdotal claims of engineers in saying the concrete erodes at the same rate as the bluffs.

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Homogeneous fills do not mimic erosion rates in heavily faulted and geologically heterogeneous bluffs. Seacave notchfills have the same impact in fixing the back beach. Some seacaves for example are up to 80 feet deep. The filling of these seacaves prevents 80 feet of beach from being created when the cave collapses. Other caves/notches proposed for filling are on the order of 4-15 feet. Given that the driplines of these caves notches remain in place, the net effect is fixing the beach at the dripline. Furthermore, if a the seacave notchfill is consistently maintained, it will have the same overall impact as a seawall in terms of fixing the back beach. Hence mitigation fees should be assessed for seacave notchfills, much as they are for seawalls.

On p 13, we object to the following language in the LUP:

> "The Seacave/Notch Infill shall be designed and constructed...
> 3. To serve its primary purpose which is to delay the need for a larger coastal structure, *and designed to be removable*, to the extent feasible, provided all other requirements under the LCP are satisfied..." (emphasis added)

In addition to our comments above about CLSM, no evidence is in the record other than anecdotal claims that notch and cave fills will be designed to be removed or will have impacts different from a seawall.

On p 36, staff states the following:

> "Suggested modifications require that Figure 1A be modified to consist solely of erodible concrete and not include a high strength concrete face on the seaward portion of the infill. A seacave/notch infill that uses only erodible concrete may be more difficult to treat aesthetically than an infill with a higher strength concrete face, but it will permit the bluff to continue to erode landward resulting in the creation of additional beach area. While an erodible concrete seacave/notch infill may require the need for increased monitoring and maintenance by the property owner to ensure it is functioning as designed, than would be otherwise required with a structural armoring device, the benefits of not fixing the back of the beach, while at the same time forestalling a catastrophic bluff collapse and the possible exposure of the clean sand lens make erodible concrete seacave/notch infills worthwhile."

Again we object to language references 'erodible concrete'. See our previous comments on erodible concrete including the lack of evidence that such infills are designed to erode at the same rate as the bluff when filling caves 80 ft deep or even several feet deep. The bluffline is projected back to the dripline with fills and therefore does not erode at the same rate as the bluff.

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3. Restrictive interpretation of the Coastal Act

On page 18, staff lists only Sections 30235 and 30253 as 'Applicable Coastal Act Policies'. Similarly, on page 31, staff states the following:

> "Section 30235 only authorizes shoreline protection devices when necessary to protect an existing structure in danger of erosion, and shoreline protective devices are no longer authorized by Section 30235 after the existing structures they protect are redeveloped, no longer present, or no longer require armoring. Although shoreline armoring in this case cannot be found consistent with all other applicable provisions of the Coastal Act, *Coastal Act provision 30235 mandates that shoreline armoring shall be approved when required to protect existing structures if specified criteria are met.*" (emphasis added)

We object to this exclusive use of 30235 to mandate shoreline armoring, without also bringing up provisions of the Coastal Act which balance 30235, including all aspects of chapter 3 per 30604c:

> "Every coastal development permit issued for any development between the nearest public road and the sea or the shoreline of any body of water located within the coastal zone shall include a specific finding that the development is in conformity with the public access and public recreation policies of Chapter 3 (commencing with Section 30200)."

30235 is not an override provision. It should be read in conjunction with the other Chapter 3 policies of the Coastal Act. Blocking access to the shoreline is not permitted under California Coastal Act Section 30604c and the associated Access (California Coastal Act Section 30210-30214) and Recreation (California Coastal Act Section 30220-30224) provisions. Without such protection, no findings for consistency with this provision can be made in support of the LUPA and the specific policies mentioned above.

The balancing provision of 30007.5 should also be cited. When there is a question of protecting Coastal resources, California Coastal Act 30007.5 should be used as the guiding principle for all of our comments.

> "...conflicts may occur between one or more policies of the division....in carrying out the provisions of this division such conflicts be resolved in a manner which on balance is the most protective of significant coastal resources...."

The discussion of 30235 on page 31 shows that staff are still requiring a restrictive interpretation of this Coastal Act section (but they give the reverse scenario for when there

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would be a seawall and no structure to protect, which they could easily fix with language requiring "up to" a 20 year authorization to protect the structure).

This restrictive interpretation of the seawall provision of the Coastal Act may also impair flexibility in future Coastal Commission decisions. It would be wiser and more congruent with the intent of the new Sea Level Rise guidance document to allow for a more flexible interpretation of 30235 that allows for permit conditions such as the City-proposed 20 year authorization period. In fact, on pages 20-21 of the staff report, the Coastal Commission recognizes the need to be pro-active in the face of sea level rise and notes Appendix C of the guidance document includes adaption of measures like "allowing permits to be re-opened after a specified time to assess effectiveness in light of sea level rise or in the event that the structure may no longer be useful or appropriate in the future". And yet, in this very Staff Recommendation, Staff backs away from such a proactive measure by allowing for a longer permit authorization period for seawall, and therefore less flexibility.

In addition to our objections above, we would like to support the following changes:

1. We support the change recommended by staff that minor clarifications be made to Policy 2.60.5 to ensure that all of the private stairways which currently encroach on public beach area are subject to the requirements of the LUP to convert to public stairways if the stairways are replaced or redeveloped in the future.

2. We support the inclusion of section 4.18 of the LUP:

> "Policy 4.18: A legally permitted bluff retention device shall not be factored into setback calculations. Expansion and/or alteration of a legally permitted bluff retention device shall include a reassessment of the need for the shoreline protective device and any modifications warranted to the protective device to eliminate or reduce any adverse impacts it has on coastal resources or public access, including but not limited to, a condition for a reassessment and reauthorization of the modified device in 20 years pursuant to Policy 4.52."

Sincerely,

Jim Jaffee
Co-chair of the Beach Preservation Committee
San Diego County Chapter of the Surfrider Foundation
Resident of Solana Beach

Kristin Brinner

The Surfrider Foundation is a non-profit grassroots organization dedicated to the protection and enjoyment of oceans, waves and beaches through a powerful activist network. Founded in 1984 by a handful of visionary surfers in Malibu, California, the Surfrider Foundation now maintains over 50,000 members and 90 chapters worldwide. For an overview of the San Diego Chapter's current programs and events, log on to our website at http://sandiego.surfrider.org/ or contact us at info@surfridersd.org or (858) 622-9661.

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Julia Chunn-Heer
Policy Manager
San Diego County Chapter of the Surfrider Foundation

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Received at Commission Meeting
JAN 08 2014
From:

Th7d

January 9, 2014

Commissioner Mary K. Shallenberger, Chair
and Honorable Coastal Commissioners
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Re: Solana Beach Major Amendment SOL-MAJ-1-13

Dear Chairperson Shallenberger and Hon. Coastal Commissioners:

On behalf of the approximately 1,500 coastal property owners in Solana Beach,[1] we write to provide input on and objections to your staff's Solana Beach LUP Amendment. We respectfully request that the Commission certify the LUPA, as modified your staff, but only with the deletions and additions summarized in our letters (all attached) dated March 7, 2012 letter to the Commission, June 18, 2012 and November 15, 2012 to the City of Solana Beach, and as set forth below.[2] Please include all of these materials into the administrative record for this matter.

Additionally, we register our disagreement with the statements in the proposed Findings (page 19) that most beach areas seaward of the bluff toe are public. The best information available – the City's 2010 mean high tide survey – disproves these statements. A copy of the survey and additional information from TerraCosta Consulting is included with the attached November 15, 2012 letter. Please see the tab "MHTL Letter" for analysis on this important matter.

In addition to the changes we request in the attached 3 letters, we also provide the following comments to Staff's specific suggested modifications as set forth in the Staff Report dated December 20, 2013:

1. **Policy 2.60.5** – Delete in its entirety. At a minimum, clarify that this policy does not apply to disaster replacements.
2. **Policy 4.18** – Delete the requirement that bluff retention devices shall not be factored into setback calculations.

---

[1] The represented parties are: Beach & Bluff Conservancy, Protect the Beach.org, Condominium Owners of South Sierra Avenue, Homeowners Association of the Solana Beach & Tennis Club, Del Mar Beach Club Owner's Association, Surfsong Owner's Association, Seascape Shores Management Corporation, Seascape Chateau Condominium Association, Seascape Surf Management Corporation, Del Mar Shores Terrace Homeowner's Association, and Las Brisas Homeowner's Association.

[2] One very important deviation from these letters, is that we do not support the 20-year expiration date, or any other expiration scheme, for bluff retention devices. Staff's suggestion that CDPs expire when the home is "Redeveloped" (as defined) does not square with Section 30235 and the Commission's definition of "existing" as it successfully argued to the California Court of Appeal. See the letter to the Commission dated March 7, 2012, Exhibit B.

3. **Policies 4.48, 4.514 (sic), 4.52**

    a. Delete language that the CDP expires when the protected home is redeveloped. This contradicts the mandate of Public Resources § 30235 that all existing structures may be protected. The Commission correctly defined the word "existing" to the California Court of Appeal in Surfrider Foundation v. Coastal Commission, Case No. A110033). See Exhibit B to letter dated March 7, 2012, attached. The Commission's judicial admission should apply to the Solana Beach LUP.

    b. Clarify that a home replaced after a disaster enjoys the status quo ante with respect to existing and new bluff retention devices. That is, disaster replacements are "existing structures" within the meaning of Section 30235 and this LUP.

    c. Add language that these new LUP policies apply retroactively to any CDP that includes a 20-year expiration date.

4. **Policy 4.52** – Delete the last sentence that requires an entirely new CDP when an existing bluff retention device is expanded or altered. Among other problems, "altered" is an ambiguous term. Also delete the requirement that any reassessment include evaluation of the age, condition and economic life of the existing structure. These factors are irrelevant. Additionally, "economic life" is vague and ambiguous.

5. **Definition of Bluff Top Redevelopment** – there should be no restraints on the ability to improve an existing bluff top home, unless the improvements would definitively cause bluff instability. This definition should be deleted in its entirety. At a minimum, the term "alteration" is vague and ambiguous. A more certain term must be used.

Thank you for your consideration of these important matters.

Respectfully submitted,

AXELSON & CORN, P.C.

Jon Corn

cc: Charles Lester, Executive Director
Sharilyn Sarb, Deputy Director
Eric Stevens, Coastal Planner
Paul Beard, Pacific Legal Foundation
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March 7, 2012

Chairwoman Mary Shallenberger, Coastal Commissioners and Coastal Staff
California Coastal Commission
San Diego Coast District Office
7575 Metropolitan Drive, Suite 103
San Diego, California 92108

Re: Solana Beach LUP, Meeting Agenda Item 12.e
Hearing Date: March 7, 2012

Dear Chairwoman Shallenberger, Commissioners and Staff:

This firm represents the Beach & Bluff Conservancy (BBC) and the Condominium Owners of South Sierra Avenue (COOSSA) as well as most of the homeowner's association for coastal condominium developments in the City of Solana Beach ("City"). The BBC is a non-profit organization that represents the interests of the more approximately 1,400-coastal property owners in Solana Beach. Formed in 1998, its broad mission is "to restore, rebuild, maintain and preserve the safety, beauty, joy and access of our beaches and bluffs for the benefit of everyone." COOSSA is also a non-profit community group formed in 1988 whose members consist of each of the condominium homeowner's association along the City's oceanfront. Its purpose is to make local government aware of the particular interests, concerns, and consensus of the Solana Beach condominium community and to organize political awareness and action on behalf of condominium residents.

As a last resort, and due to existing conditions well beyond the control of any bluff top property owner, the BBC and COOSSA support the use of bluff retention devices (BRDs) where needed to protect existing structures and public safety, as well as beach sand replenishment activities to the further extent possible. For the reasons stated herein, my clients register their

strong objections to certain aspects of the LUP and the modifications suggested by Coastal staff in its staff report dated February 24, 2012, and to suggest and explain the need for certain revisions.

Background

I have been intricately involved with the City's LUP since 2004 as a member of the City's LCP Citizen's Committee, which was comprised of two members of the Surfrider Foundation (one of whom, Dwight Worden, was also a former Coastal Commissioner and another, Jim Jaffee, an engineer and community activist who strongly opposes seawalls) and 2 coastal property owners, David Winkler and myself. Over the course of several years, our committee drafted a document that came to be called the "Compromise LUP" which addressed the beach and bluff elements for the City's LUP then being written. The City incorporated the vast majority of Compromise LUP provisions into a full scope LUP and submitted it to the Commission for certification. With respect to the beach and bluff issues (the only issues addressed by the Compromise LUP) this document conformed with Chapter 3 of the Coastal Act in that it "achieve[d] the basic state goals specified in Section 30001.5" and could have and should have been certified without substantial modifications.

Nevertheless, Coastal staff has rewritten large portions of the City's LUP, through the expedient of "suggested modifications," essentially erasing most of the material provisions of the Compromise LUP and adding significant new intent language and many material policies. The City agreed to virtually all of these changes ostensibly because it felt it must in order to obtain certification. In other words, the City did what most individual applicants do – bend to Coastal staff's will in order to get a positive staff report. Despite the incorporation of these changes into the LUP, Coastal staff still recommends denial of the City's LUP "due to significant deficiencies in the scope and specificity of the submitted policies."

Suffice it to say, the City's coastal property owners have *grave* concerns about the current LUP and even graver concerns about the new round of suggested modifications that appear in the current staff report. The Commission is respectfully referred to *Public Resources* Code §30512.2, which provides that it is the City not the Commission that has the State legislative mandate to write its LUP. By law, the Commission may not dictate the content of the LUP and it is required to certify a LUP if it achieves the "basic state goals" of Chapter 3 of the Coastal Act. The LUP originally submitted by the City achieved these goals, and it should have been certified, but it was

instead subjected to extreme revision by Coastal staff over a laborious 4 or 5 year process requiring 2 or 3 re-submittals due to the expiration of the jurisdictional review period.

For these reasons, we respectfully request that the Commission deny certification of the current LUP – which has been substantially modified by the City at Coastal staff's request – unless the changes proposed in the letter attached as Exhibit A are implemented. This letter proposes the changes that would essentially restore certain material aspects of the Compromise LUP so that the final document expresses the will of the City and its residents as compared to the one that has now been largely re-written by Coastal staff. In the alternative, if the Commission is inclined to conditionally certify today's LUP with certain modifications now proposed by Coastal staff, we respectfully request that the below comments and suggestions be taken into consideration.

The 20 Year Sunset Provision is a Taking

One of our principal objections to the LUP is that it proposes to limit shoreline protective device permits to just 20 years (commencing on the date of CDP approval, not upon project completion),[1] a mere blink of time relative to the huge expense and importance of the undertaking. This sunset provision is an illegal limitation that creates profound uncertainty and will perpetuate the seawall controversy indefinitely as community battles break out over and over again over renewal permits. It will also cast a pall of uncertainty over bluff properties greatly reducing their value, especially during the second half of the abbreviated permit life.

This limitation is legally invalid and must not be imposed. When existing structures are in danger from erosion they are entitled to protection, and the Coastal Act does not provide for that related permits can be or should be of limited duration. *Public Resources* Code §30235. The power to impose a permit condition only derives from the power to deny the permit. Nollan v. California Coastal Commission (1987) 483 U.S. 825. Where there is no discretion to deny the permit, the government cannot impose conditions that are not specifically authorized. The Coastal Act does not authorize a time limit on permits for bluff retention devices, so neither the Commission nor the City

[1] Per Suggested Modifications 98 (Policy 4.52), 99 (Policy 4.53), and 102 (Policy 4.56), the 20-year permit limitation is effectively even shorter because the 20-year clock would commence on the date of CDP *approval*, not upon completion of construction. Given that most shoreline protection projects take up to 2 years to fully permit and construct, if this additional change is accepted the effective duration would be just 18 years. At a bare minimum, Policies 4.52, 4.53, 4.56 and [proposed] 4.56.5 should state that the permit duration is 20 years from project ***completion.***

can impose one in the face of a mandatory duty to grant the underlying permit. Imposing a time limit, especially one that is so short and where renewal is so uncertain, constitutes a regulatory taking that must be removed in its entirety from Policies 4.52, 4.53 and 4.56.

Proposed CDP Renewal Policy Requires Evaluation of Irrelevant, Misleading Factors

Suggested Modification 103 proposes to add Policy 4.56.5 addressing applications to renew permits for existing bluff retention devices. As explained above, seawalls should not be subject to limited duration permits or sunset provisions. If the sunset provisions are eliminated then this Policy 4.56.5 is no longer necessary. If it does become part of the LUP, then significant changes must be made. As written, Policy 4.56.5 would require the CDP renewal application to "evaluate … the age, condition, and economic life of [the] principal structure including whether it was an existing structure on January 1, 1977 (prior to implementation of the Coastal Act)." There is no legal relevance to these factors and they should not be part of the analysis for CDP renewal.

Public Resources Code §30235 provides that "seawalls, cliff retaining walls, and other such construction … shall be permitted when required to … protect existing structures … in danger from erosion…." This clear, unambiguous language means just what it says, that existing structures in danger from erosion get a permit. The age, condition and "economic life" of the structure are not relevant to CDP determination – the law just does not include them as part of the analysis, and they are not reasonable interpretations of the Coastal Act. Coastal staff's suggestion to the contrary is well outside the scope of the legislative mandate guarantying protection for coastal structures. This guarantee of protection applies to all structures – not just *principal* structures. The Commission must administer the Coastal Act as it is actually written – it cannot insert words that like "principal" or "imminent bluff failure" that are simply not part of the law.

Perhaps the most egregious liberty taken by Coastal staff with proposed Policy 4.56.5 is the suggestion that whether "an existing structure on January 1, 1977 (prior to implementation of the Coastal Act)" is also somehow relevant to the CDP renewal analysis. The Surfrider Foundation has been unsuccessfully arguing for years that the word "existing" in Section 30235 means existing as of January 1, 1977, and that homes constructed after that date are not entitled to protection from bluff retention devices. In 2005, the Surfrider Foundation sued the Coastal Commission over this very issue and lost in both the trial and appellate courts. Surfrider Foundation v. California Coastal Comm'n, A110033, 2006 WL 1530224 (Cal. Ct. App. June 5, 2006). On appeal, the Coastal

Commission presented compelling and thorough arguments in its briefs and in oral argument before the Court that the term "existing" does not mean "existing on January 1, 1977, but "currently existing" as in at the time of the application. Thus, for the Commission to now suggest in proposed Policy 4.56.5 (and also in Policy 4.17) that existing is relevant to the CDP renewal analysis is astonishing. The relevant portions of the Commission's brief on appeal are attached as Exhibit B, but provide in pertinent part as follows:

> **B. The Commission's Interpretation of Section 30235 Is Compelled by Both the Language of the Statute and the Legislature's Intent to Allow Seawalls Where Necessary to Protect Life and Property.**
>
> In the face of this, Surfrider maintains one argument. It contends that the word "existing" as used in section 30235[5/] (and implicitly LCP policy S-6) means "existing as of January 1, 1977," the date that the Coastal Act went into effect; in other words, the Commission may approve a seawall only to protect structures that existed on January 1, 1977. Because Cavanagh's house did not exist until 1998, Surfrider contends that, as a matter of law, the Commission had no discretion to approve his seawall.
>
> This argument is meritless. The Commission's interpretation follows the plain language of the statute: "Existing" means "existing" and Cavanagh's house legally existed on the date that he applied for the seawall.

Do Not Eliminate 7-Day Vacation Rental Minimum

Suggested Modification 129 seeks to modify Policy 5.31 so that vacation rentals of any duration, even 1 day, are allowed in all City residential zones. We strongly object to this change. It is not required for the LUP and should be completely rejected, especially with respect to the City's condominiums. This reduction in the minimum stay from 7 days to just 1 day will have deleterious effects that are not justified by the minor benefits that this change may only *potentially* achieve.

Solana Beach is a small town of just 14,000 residents and with a little more than 1.5 miles of coastline that is inaccessible much of the time due to large-scale sand depletion supply from the upland watershed. There is substantial acreage within City limits that has now been moved into the visitor commercial overlay zones. The City has 2 hotels, a Courtyard by Marriot and a Holiday Inn Express. There are more than 20 other low to moderately priced hotels within a 5 or 10 minute drive, and more than 100 such hotels within a 15 to 20 minute drive. Plenty of overnight visitor

accommodations exist in this region, and there are many alternative beach destinations nearby. Sadly, given the poor state of the beach in the City, most short-stay visitors would likely prefer neighboring beach towns where they can find wider sandy beaches. The nearby towns of Del Mar, Encinitas, Carlsbad, and Oceanside offer dozens of miles of sandy beach that attract visitors from all reaches of the state and country.

The City's condominiums, especially along Sierra Avenue, are the homes of well over 1,000 residents, and the issue of extremely short-term rentals is a critical "quality of life" issue for them. Many of them purchased their residences with the understanding and expectation that extremely short-term rentals would not be allowed. This was important to them as short-term rentals can transform a quiet condominium neighborhood to a summertime party zone like we see in Pacific Beach, Mission Beach, and Oceanside. Often, the quiet neighborhood character that our residents treasure and expect is ruined. Short-term rentals can cause additional wear and tear on common area resources, taxing HOAs that are already stretched for funds. Examples of up to ten individuals staying in a one or two-bedroom condo and late night parties are not unusual. Just the potential for short-term rentals depresses property values, thereby damaging homeowners.

According to Coastal staff, elimination of the minimum rental duration is not just beneficial to open up coastal access, it is required to achieve LUP compliance with the Coastal Act. We completely disagree. Coastal staff believes that Public Resources Code §30221 essentially mandates this change because it "requires that oceanfront land be used for recreational-related uses whenever feasible." (See Staff Report, p. 91). This justification distorts the meaning of Section 30221. Section 30221 does not apply to vacation rentals in established condominiums or any other home. It provides that oceanfront *land* (not buildings) should be protected for recreational use and recreational development over other uses.[2] Accordingly, Coastal staff's comment that this change is required for LUP compliance is wrong. The Commission should respect the City's choices regarding vacation rental duration, and let the City's condominium residents enjoy the peace and quiet of their neighborhoods.

[2] Public Resources Code § 30221 provides as follows: "Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area."

Private Stairways Must Not Be Phased Out or Converted to Public Use

Suggested Modification 27 seeks to modify Policy 2.60 so that private beach accessways "shall be phased out or converted to public accessways." This vaguely worded modification is not required for LUP certification and would be highly impractical and unnecessary in Solana Beach. On the south side of town, 3 large condominiums collectively serving more than 1,000 residents, maintain existing stairways to the beach that have been in existence for more than 25 years. These stairways are important to these large communities, and given the large number of people that they do serve, they effective function like public accessways already. There is no compelling reason for them to be "phased out" whatever that ambiguous term may mean. There is also no compelling reason to convert them to public use, which would be highly impractical, very expensive and could potentially threaten the security of condominium residents. Moreover, the City's existing public accessways provide adequate vertical access to the shoreline.

Setback for New Construction Should Not Require 1.5 Factor of Safety After 75 Years

Suggested Modification 89 seeks to significantly modify Policy 4.27 and long-standing engineering principles regarding the determination of the geologic setback line. If Suggested Modification 89 is incorporated, the geologic setback line, the line which establishes the distance from the bluff edge for new construction, to require a minimum 1.5 factor of safety for 75 years. This harsh requirement, which could result in regulatory takings and is not supported by any building codes or generally accepted engineering principles, will likely place the geologic setback line for many Solana Beach coastal properties in the middle of Pacific Avenue. While the Uniform Building Code, the International Building Code, and the California Building Code require that all engineered structures should have minimum factors of safety against sliding of 1.5 *at the time of construction*, none require that the factor of safety minimum must exist for the entire economic lifespan of the structure. Such a policy is overly conservative, not a recognized engineering principle, and is simply unnecessary from a design point of view. Under [Proposed] Policy 4.20.5, the coastal property is already being required to record a deed restriction that waives the right to protect new development. If the new development becomes severely threatened due to the landward retreat of the bluff edge, the owner would simply remove the new constructed development that cannot be protected. Please see the Exhibit C, letter from Walt Crampton.

Existing BRDs Must be Considered in Setback Calculations

In Suggested Modification 82, Coastal staff is recommending a complete re-write of Policy 4.20 to establish that existing bluff retention devices, despite the fact that the devices are required to be built and certified to last 75 years, must be ignored in the geologic setback line (GSL) calculation. This provision is punitive and illogical because it requires the licensed engineer retained to determine the GSL to ignore the engineering and scientific reality of the bluff retention device. Undoubtedly, bluff retention devices are significant structures, certified by their engineers to last 75 years, and their presence will significantly impact the GSL. Engineers should not be required to ignore their existence. Thus, the first sentence of proposed Policy 4.20 should be deleted.

Mid/Upper Bluff Restoration Should Not Require Finding That Relocation is Infeasible

Suggested Modifications 61 and 62 include new provisions that would require a coastal property owner to first prove that relocation of an existing structure is infeasible before obtaining a permit for mid or upper bluff restoration. These suggestions not only represent an abrupt departure from long-standing City and Commission policies, but also are legally authorized. Under *Public Resources* Code §30235, coastal property owners are entitled to build "seawalls, cliff retaining walls, and other such construction" when required to protect existing structures in danger from erosion. To obtain permission for mid or upper bluff restoration, the coastal property owner need only demonstrate that the structure is in danger from erosion and that the restoration is needed for protection. Given the mandatory nature of Section 30235, the property owner cannot also be required to prove that structure relocation is infeasible in order to get the required permit and the property owner cannot be required to move the structure simply to protect it. The Coastal Act simply does not require this monumentally expensive and impractical exercise. Instead, the permit for mid/upper bluff restoration must be issued if the existing structure is in danger from erosion, period.

Waiver of Shoreline Protection For New Development Only

- Must Not Apply to Pre-Existing Structures -

As worded, Suggested Modification 83 *may* require coastal property owners to waive the right to new or additional shoreline protection for an entire structure, even the pre-existing portions of the structure, as a condition of a permit for any new development. Such a waiver may only apply

to the newly constructed portions of the structure, not the portions of the structure that existed prior to the new construction. Existing structures are entitled to shoreline protection before and after additions or remodels, and requiring a waiver of shoreline protection to get the building permit is invalid. A structure does not cease to be "existing" as a result of a remodel or addition, and existing structures are entitled to protection. This was made patently clear in the second to last sentence of Policy 4.19. However, in Suggested Modification 80, Coastal staff proposes to delete this sentence.

Accordingly, proposed new Policy 4.20.5, if required at all, must be revised so that the waiver to shoreline protection applies only to the newly constructed portions of the structure, not the entire structure. Moreover, the above referenced sentence in Policy 4.19 should not be deleted. As to proposed new Policy 4.20.5 we propose the following:

> Policy 4.20.5 - New shoreline or bluff protective devices that alter natural landforms along the bluffs or shoreline processes shall not be permitted to protect new development. A condition of the permit for all new development and blufftop redevelopment on bluff property shall require the property owner to record a deed restriction against the property that expressly waives any future right that may exist pursuant to Section 30235 of the Coastal Act to new or additional bluff retention devices to protect the new development.

Mitigation Fees Remain Extremely Problematic and Controversial

Coastal property owner Joe Steinberg, through his attorneys, submitted a comprehensive letter regarding the legality and appropriateness of mitigation fees. These arguments include:

- BRDs are needed today due to the historically unprecedented over development of the coastal zone and massive public and government interference with normal coastal processes;
- This over development and interference has irreversibly interrupted the natural flow of upland sediments to the beach, and has transformed the beach in Solana Beach from one that was generally stable, to one that is actively eroding;
- The majority of the beach area theoretically impacted by BRDs is attributable to passive erosion, as opposed to the footprint of the BRD;
- Passive erosion occurs in Solana Beach due to upland developments that block normally delivery of beach sediments to the coastal environment;
- A fee to compensate the public for lost recreation makes little sense when the area occupied by BRDs is objectively unsafe for recreation;

- BRDs increase the width of useable beach and enhance coastal recreation opportunities, especially when coupled with sand replenishment activities;

We agree with the factual underpinnings of each of these statements, and incorporate Mr. Steinberg's letter, and its attachments, herein by reference. In addition, there is a compelling argument that there is no statutory authority to impose mitigation fees for BRDs. As stated by the United States Supreme Court in Nollan v. California Coastal Commission (1987) 483 U.S. 825, the power to impose a permit condition derives from the power to deny the permit. If the government has no discretion to deny the permit, it cannot impose mitigation fees unless such fees are specifically authorized by statute. When the Commission and/or the City lack the power to deny a BRD permit they also lack the power to impose mitigation fees not expressly authorized by the Coastal Act.

Public Resources Code §30235 imposes a mandatory duty on the government to grant a seawall permit as long as an existing structure or the beach is in danger from erosion or when the seawall is needed to serve coastal dependent uses. The only condition that may be imposed on the mandatory seawall permit is the one set forth in §30235, a requirement that the device be "designed to eliminate or mitigate adverse impacts on local shoreline sand supply." Therefore, since denying a permit otherwise required would constitute a taking, and since the only condition that may be validly imposed is the design requirement quoted above, the imposition of the mitigation fees would also constitute a taking and may not be validly imposed.

BRD Safety Benefits Should Not Be Deleted From the LUP and Mitigation Fees Must Account for the Value of BRD Public Benefits

All mitigation fees for the impacts of BRDs must be assessed on a *net* basis, taking into account the public benefits of BRDs. The primary public benefits of BRDs are that they improve public safety on the beach and protect public infrastructure (roads and utilities) on the bluff top. This is an important component of the City's LUP, which listed the public and safety benefits of BRDs and provided that the value placed on these benefits would be subtracted from the mitigation fees.

The public safety benefits of BRDs cannot be denied. And, although the Commission admitted in Surfrider v. Coastal Commission case, *infra,* that BRDs protect lives,[3] Coastal staff has proposed

[3] In Surfrider v. Coastal Commission, the Commission made the following judicial admissions:

deleting the public safety language from the LUP. In Suggested Modification 95, Coastal staff completely removes the language from Policy 4.41 concerning these public benefits and in Suggested Modification 67 staff deletes most all references to the safety benefits of BRDs (Also see, Suggested Modification 95) including reference to the 5 documented fatalities caused by bluff collapses in North San Diego County since 1995. These deaths were the result of sudden bluff collapse events from bluffs that were *not* supported by BRDs. To our knowledge, there have never been any deaths or injuries, let alone any collapse events, from bluffs supported by BRDs. This language is factual and relevant and it should not be deleted. If mitigation fees are to be assessed, the LUP should provide for the imposition of fees for the *net* impacts of BRDs taking into account the public benefits of BRDs.[4]

Public Recreation and Sand Mitigation Fees Are Redundant, And Other Problems

The Public Recreation Fee is problematic for at least three reasons. One, there is substantial overlap between this fee and the Sand Mitigation Fee. Two, the Public Recreation Fee deposit at $1,000 per foot was established when it was presumed that BRD permits would not expire until 2081. With permits now set to expire in just 20 years (with only 18 or 19 years of actual beach impact), there must be a 70% reduction in the amount of the deposit. Three, per Coastal staff, the Public Recreation fee cannot be used for sand replenishment. We believe this is a grave mistake as sand is what our beaches so desperately need.

The impacts to be mitigated through the Public Recreation Fee are already addressed in the Sand Mitigation Fee. The Public Recreation Fee is intended to compensate the public for the "use" of the public beach by a private seawall. However, the Sand Mitigation Fee formula already (V_e)

"The Commission's Interpretation of Section 30235 Is Compelled by Both the Language of the Statute and the Legislature's Intent to Allow Seawalls Where Necessary to Protect Life and Property." See Exhibit B, page 2.

"Section 30235 recognizes that, despite the best efforts to avoid the later need for seawalls, it may sometimes be necessary to protect lives and property endangered by erosion." See Exhibit B, page 4

[4] This is all the more fair as BRDs would in all likelihood not be necessary but for the massive sand depletion caused by the cumulative impacts of public and private developments throughout the Southern California watershed.

takes this into account by calculating a cost for the area of beach physically occupied by the BRD footprint plus the area that is theoretically lost due to passive erosion (V_w).[5] In other words, the Sand Mitigation Fee charges property owners a fee to replace the beach that is "used" by their BRD, while the Public Recreation Fee will charge them (again) to use that same space. Once the Public Recreation Fee is established this overlap will need to be addressed so that property owners do not pay for any one identified impact more than once.

In the meantime, property owners are being charged the Sand Mitigation Fee and a deposit towards the eventual Public Recreation Fee. The amount of the deposit is $1,000 per lineal foot. This amount was established when it was presumed that BRD permits would not expire for approximately 70 years, and the $1,000 per foot was taking into account 70 years worth of BRD impact. Now that the LUP proposes just 20-year permits, the deposit should be decreased proportionately to roughly $300 per foot to account for this significant reduction in time.

Lastly, Coastal staff proposes changing the LUP (See Suggested Modifications 60 and 93) to preclude the use of Public Recreation Fees for sand replenishment activities. We strongly disagree with this unexplained modification. The City's beaches desperately need sand. And since the primary identified impact of BRDs is that they occupy beach space that would otherwise be available for public use, the best way to deploy Public Recreation fees is to use them to replace the beach space that BRDs theoretically take away.

Miscellaneous

1. **Definition of Imminent**. The definition of imminent is proposed to be reduced from 24 to 12 months. The effect of this change is that seawalls will not be allowed unless bluff failure is likely within 12 months from the date of the application. The Compromise LUP allowed seawalls 48 months ahead of a likely failure, and the City later reduced this (presumably at Coastal staff's request) to 24 months. Now, the time frame has been again reduced to 12 months. We believe that the definition of imminent should be restored to 24, or better yet, 48 months. These longer time periods were intended to avert emergency permit applications and to enable smaller seawalls.

[5] For more information, please see Exhibit D, the Commission's explanatory policy paper on the Sand Mitigation Fee formula.

2. **Policy 2.4** must incorporate or refer to the language in **Policy 2.7** that addresses how unavoidable impacts are addressed. This change might not be absolutely necessary, but since the Surfrider Foundation sued the City over a similar issue (Finding 5 litigation) and ultimately charged the City more than $100,000 for its legal fees, this change should be made out of an abundance of caution.
3. **Policy 4.25** should be modified to include additions to existing homes. This clarifying change would be congruous with other policies.
4. **Policy 5.47** should be modified to make clear that structures rebuilt subsequent to a disasters will have the same rights to BRDs as the destroyed structure.

Thank you for your consideration of the comments set forth in this letter.

Respectfully submitted,

Axelson Corn Law Firm

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Exhibit A

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June 8, 2011

David Ott, City Manager
Tina Christensen, Community Development Director
City of Solana Beach
635 S. Highway 101
Solana Beach, CA 92075

Re: Comments and Suggested Revisions
Solana Beach Local Coastal Program – Land Use Plan
Submitted by the BBC, COOSSA and Numerous Solana Beach HOAs

Dear Mr. Ott and Ms. Christensen:

This firm represents the Beach and Bluff Conservancy ("BBC"), the Condominium Organization of South Sierra Avenue ("COOSSA"), and the following condominium homeowner's associations: Del Mar Beach Club, Solana Beach & Tennis Club, Surfsong, Seascape Chateau, Seascape Sur, Del Mar Shores Terrace, Las Brisas, and Seascape Shores (collectively, "Bluff Property Owners"). These organizations include approximately 1,400 City residents whose residential properties account for a substantial portion of the City's property tax base.

Thank you for the opportunity to comment on the current version of the City's Land Use Plan (LUP) portion of its Local Coastal Program (LCP). Our goal is to help the City formulate a final LCP that best serves the City's citizens, improves safety and recreation opportunities along the City's beaches, and strikes a fair and reasonable balance between environmental protection and private property rights. We hope you find our comments useful, rather than divisive, and that they will help you mold the LCP into a balanced and enforceable City planning and development guide that will serve current and future generations of City residents and visitors for many years. Our comments are limited to those that we believe have a material impact. Others were excluded in an effort to expedite completion and certification of the LCP.

While our comments are set forth in a "redline to LUP text format" below, our primary objection to the LUP is that it proposes to limit coastal development permits (CDP) for notch infills and coastal structures to just 20 years, a mere blink of time relative to the huge expense and importance of the undertaking. We believe this sunset provision is an illegal limitation – being forced upon the City by the Coastal Commission (CCC) – that violates the Coastal Act (Act), it imposes a harsh and unfair penalty on bluff property owners, and it is bad policy for the City. We respectfully request that this unsupported limitation be removed in its entirety from both Policy 4.52 and Policy 4.53 (as shown in redline below).

In the alternative, if the City is unwilling or unable to resist the CCC staff's influence on the 20-year sunset provision, an automatic renewal process must be established as a Tier 1 – Administrative CDP, provided certain reasonable, objective criteria are satisfied. Policies 4.52(E) and Policy 4.53(D) need to be added to the LUP if CDPs are limited to 20 years, or any timeframe for that matter. With this addition, or better yet deletion of the sunset provision in its entirety, our primary objection to the Sand Mitigation Fee (SMF) will also be resolved given it is inappropriate to charge this fee based on the theoretical permanent "removal" of sand from the system when the actual impact is merely delaying very gradual sand deposits during the 20-year permit period. If the 20-year sunset provision is not deleted and the renewal provisions are not added, then we believe the City must completely revamp the SMF so that it properly accounts for the actual impact of the BRD.

A. The CCC Cannot Deny Certification Because The City Refuses the 20-year Sunset Provision; The City Controls This Issue

As the City considers the proper course with regard to the CCC's sunset provision, the City is respectfully reminded that the Act clearly provides that it is the City, not the CCC (*and certainly not the CCC staff*) that has the State legislative mandate to write the City's LCP and determine the City's local planning policies. With regard to LCP certification, the CCC's role is at best secondary to the City's and it is legally limited to merely ensuring that the LCP ultimately complies with the relevant portions of the Act. The City is respectfully referred to the following language:

> (a) The commission's review of a land use plan shall be limited to its administrative determination that the land use plan submitted by the local government does, or does not, conform with the requirements of Chapter

> 3 (commencing with Section 30200). In making this review, ***the commission is not authorized by any provision of this division to diminish or abridge the authority of a local government to adopt and establish, by ordinance, the precise content of its land use plan.***
>
> (b) The commission shall require conformance with the policies and requirements of Chapter 3 (commencing with Section 30200) ***only to the extent necessary to achieve the basic state goals specified in Section 30001.5.***
>
> *Public Resources Code* (PRC) § 30512.2 (emphasis added).

Since there is literally NOTHING in the Act that supports the notion of a bluff retention device (BRD) sunset provision, the CCC cannot reject the LUP because it lacks one. As the language above makes clear, the CCC's role in the LUP certification process is to administratively determine whether the LUP does or does not comply with the basic tenets of Chapter 3. Since Chapter 3 does not provide for any limitation in the duration of a CDP for BRDs, the CCC may not deny certification simply because the LUP does not contain one. Therefore, the City must reject the CCC staff's suggestion regarding 20-year permits and it should delete this from Policies 4.52 and 4.53.

B. The Sunset Provision is Illegal, Harsh and Unfair

The Act mandates the issuance of CDPs for BRDs when the conditions set forth in PRC § 30235 are established. The Act does not allow for any limitation on the duration of the permit, and doing so constitutes a regulatory taking. The United States Supreme Court stated in Nollan v. California Coastal Commission (1987) 483 U.S. 825, that the power to impose a permit condition derives from the power to deny the permit. If the City has no discretion to deny the permit, it cannot impose conditions on that permit, such as the 20-year sunset provision, unless such conditions are specifically authorized by statute. It follows then, that if the City or the CCC is obligated to approve a BRD under PRC §30235, then they each lack the power to impose the proposed 20-year limit, or other conditions not expressly enumerated therein.

In addition, the 20-year limit unfairly and harshly treats a bluff property owner who makes the huge investment to construct and maintain a BRD by taking away any certainty it will be there to protect property and improve safety after 20 years. This uncertainty will severely depress bluff property market value (especially in the second half of the permit lifespan), erode

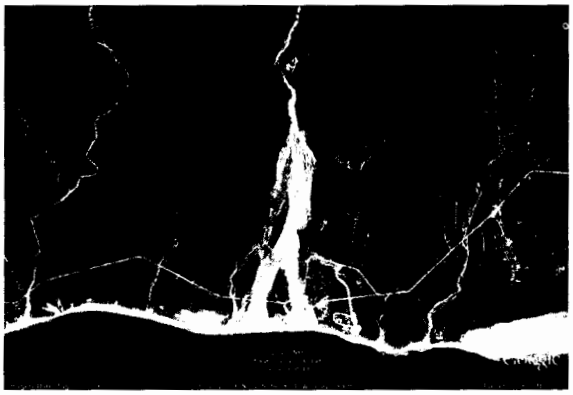
the City's tax base, discourage bluff top property owners from improving their homes, and create or contribute to unsafe beach conditions.

The City's *unprotected* bluffs are extremely dangerous and bluff failures are a common occurrence, sometimes with fatal results. Sadly, Solana Beach essentially has no beach, and without large-scale regional beach replenishment this will remain the case, and get worse, with or without BRDs. BRDs are often maligned as the cause of beach degradation, but the truth is that BRDs make the beach safer and increase the area of useable beach. Moreover, their absence will not improve current beach conditions; it will only make them worse. Privately funded BRDs provide a *substantial* public benefit and, therefore, should be encouraged, not discouraged with unfair and oppressive permit conditions.

Nevertheless, the CCC continues to blame BRDs for the current state of the City's once sandy beaches. However, as the City well knows the actual cause of current – and worsening – beach conditions are sand starvation caused by human development activities and erosion control policies within the upland watershed. All significant sand resources have been cut off and absent large-scale and continual sand replenishment efforts, beach erosion in the City will continue, and perhaps accelerate. BRDs have nothing to do with this unfortunate process, which is now irreversible.[1] Discouraging BRD installations, and removing existing ones, will not change the condition of the City's beaches, and such would be bad policy. The only solution is to artificially and continuously replace the sand on a regional basis that the watershed used to deliver naturally.

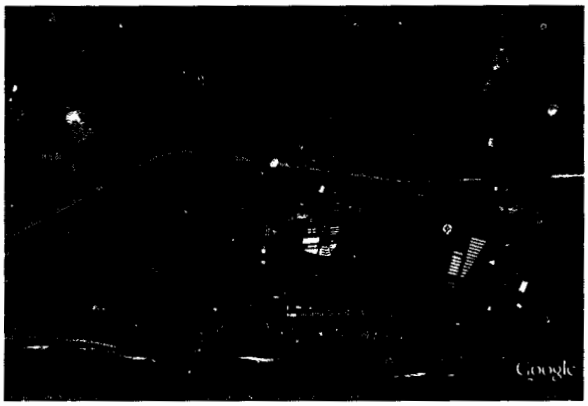
The side-by-side satellite images below well illustrate this point. The image on the left depicts upland-to-coastal sand flow in a natural environmental that has not suffered the ravages of human "improvements." The image on the right is Solana Beach, which is dominated by rooftops, landscaping, parking lots, and roads. Moreover, the 2 sand-producing coastal watersheds are dammed by multiple transportation corridors and, in the case of the San Dieguito River Valley, there is also the massive racetrack and fairground installation. Needless to say, upland sand flow to the coast has very little chance of penetrating this gauntlet of human developments.

[1] Bluff erosion provides less than 3% of the sand needed to maintain a healthy beach (Flick & Elwany, July 2006).



Undisturbed Coastal Environment – Baja Sur, Mexico

Sand Freely Flows From Upland Reaches Resulting in Wide, Sandy Beaches, Sand Dunes, Healthy Near Shore Environment.



Disturbed Coastal Environment – Solana Beach, CA

Sand Trapped By Highway 101, Railway Berm, I-5, Upland Impervious Services, Damming, Sand Miniing, Etc. Results in Denuded Beaches. Severe Coastal Erosion, and Pollution.

The balance of our LUP comments are set forth below. The black text is actual language from the LUP. The red text and red lines represent our suggested revisions. The blue, italicized text sets forth our explanation for the proposed change.

CHAPTER 1

1. Page 2, Para. 1: In the last several decades, erosion has been greatly accelerated by the lack of sand replenishment due to the damming of, and mining in, coastal rivers, that formerly carried to the ocean much greater amounts of sediment than are currently being delivered, along with the intensive development of the upland watershed throughout the coastal zone.

   Explanation: The changes provide a more complete explanation of the reasons for coastal erosion.

2. Page 2 – 3, Para. 4: These interrelated factors have impaired recreational opportunities and pose ~~potential~~ significant threats to public safety, and to publicly and privately owned buildings, infrastructure and property in Solana Beach.

   Explanation: In this context, the threat is not "potential;" it is very real.

CHAPTER 2

1. Page 8, No. 2, Bullet 6: Coordinating with the CCC to implement public recreation impact mitigation measures by coordinating with other public agencies and private associations to ensure that access is not unreasonably impeded beyond that which may result from bluff retention devices outlined in the MEIR, given existing beach conditions.

Explanation: The suggested language prevents the City from finding itself resurrecting the old "Finding 5" problem that led to the expensive Surfrider litigation.

2. Page 10, Para. 5: Bluff retention devices limit sudden episodic deposits of bluff sand, soils and rock from falling on the beach.... At the same time, bluff retention devices ~~will~~ may have a narrowing effect on beach width because they inhibit passive erosion on actively eroding beaches.

   Explanation: BRDs will not inhibit passive erosion to any substantial degree unless the beach is already actively eroding. The suggested language clarifies this fact.

3. Page 11, Para. 1: With or without bluff retention devices, ~~There~~ there will eventually be a loss of lateral access along the beach absent significant and regional sand replenishment and retention efforts.

   Explanation: BRDs should not be blamed for the loss of lateral access along the beach. The suggested language will prevent the continued spread of this false position.

4. Policy 2.60: No new private beach stairways shall be constructed. Existing permitted or private beach stairways constructed prior to the ~~Coastal Act~~adoption of the LCP may be maintained in good condition with a CDP, but shall not be expanded in size or function. Routine repair and maintenance shall not include the replacement of the stairway or any significant portion of the stairway, except in the event of a disaster as that term is defined in PRC 30610(d).

   Explanation: The suggested language simply squares the policy with the law.

5. Policy 2.65: The City should work with local surfing clubs and other interested parties to identify, inventory, and design....

   Explanation: This change simply ensures that the identification process is open to anyone that would like to participate.

CHAPTER 4

1. Page 1, Para. 3: Beach sand is a product of the weathering of the land. The primary natural source for the region's beaches is sediment carried from inland areas by rivers and streams. Coastal bluff erosion is another source of beach sand. In Solana Beach, however, the beach quality sand contained within coastal bluffs has historically been and continues to be a *de minimus* source of beach sand. Offshore sand supplies (relic or ancient beaches) may be a natural source of beach sand, but these resources examined ... * * *.

   Explanation: The suggested additional language was the conclusion of the July 2006 Flick and Elwany Report commissioned by the City. The LCP is to be as complete as possible to avoid future misunderstandings and continued public debate.

2. Page 10, Para 1: Section 30235 of the Coastal Act ~~allows~~ mandates the ~~construction~~ approval of bluff retention devices "when required to serve coastal-dependent uses or to protect ~~where~~ existing structures or public beaches in danger ~~are threatened~~

from erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply."

Explanation: The suggested changes provide for an accurate description of Public Resources Code 30235. As written, the sentence is inaccurate.

3. Page 12, Bullet 1: * * * If left uncorrected the sea cave/undercut will eventually lead to block failures of the lower sandstone, exposure of the clean sand lens and ~~landward bluff retreat~~considerable instability of the upper bluff. * * *

   Explanation: Block failures don't always lead to "landward bluff retreat" and if they do it is in small increments over considerable time. The primary point of these sentences is to describe the principal and direct consequences of failing to address lower bluff undercutting, and why these consequences should be addressed with notch infills. We don't construct notch infills to address "landward bluff retreat." We do so to prevent the destabilization of the upper bluff. Ending this sentence as suggested above is consistent with the primary purpose of this section.

4. Page 12, Bullet 2: This retention system is an all-encompassing bluff repair used when bluff failures have caused or likely will cause exposure of the clean sand lens and/or significant erosion of the mid and upper bluff. * * *

   Explanation: The suggested changes emphasize that this system can be used to prevent an emergency and improve safety before there is a catastrophic bluff failure.

5. Page 13, Bullet 1: * * * The repair is much like the upper bluff repair (Preferred Solution #2) and ~~including~~ can address lateral migration of upper bluff erosion from adjacent properties with return walls that run perpendicular to the beach, and would involve benching and placing erodible concrete between the clean sand lens and the bluff face to assure that the clean sand erosion does not undermine the stability of the upper bluff and bluff top principal structure. * * *

   Explanation: This preferred solution should allow for return walls when needed to insulate a protected upper bluff from a failing, unprotected adjacent upper bluff (e.g., 241 and 325 Pacific). This was likely an inadvertent omission as return walls are already contemplated as being approved as "Tier 1" administrative review (See Policy 4.40).

6. Page 14, Para 3: The City will coordinate with the CCC and other state regulatory entities in developing a uniform statewide Public Recreation~~/Land Lease~~ Fee.

   Explanation: In several places throughout the LUP, the term "Public Recreation/Land Lease Fee" was not changed to its new moniker "Public Recreation Fee." For example, it appears in several places in Appendix A. The suggested referenced here should be made as needed where the "/Land Lease" still appears.

7. Policy 4.2: All development that requires a CDP is subject to written findings by the City's decision-making body that it is consistent with all applicable LUP policies and LIP provisions of the City's certified LCP.

Explanation: This change is needed because not all LUP policies apply to all types of development.

8. Policy 4.16: Existing, lawfully established structures built prior to the adopted date of the LUP that do not conform to the provisions of the LCP may be maintained. Additions and improvements to such structures ~~may~~ shall be permitted provided that such additions or improvements themselves comply with the current policies and standards of the LCP and any other application City ordinances. However, should such additions or improvements result in an Extensive Remodel, then ~~Demolition and reconstruction that results in the demolition of more than 50 percent of the exterior walls of a non-conforming structure is not permitted unless~~ the entire structure ~~is~~ shall be brought into conformance with the policies and standards of the LCP.

   Explanation: Change 1, Additions and improvements that comply with all City ordinances must be approved. Thus, changing "may" to "shall" removes the notion that such an request would be a wholly discretionary approval. Change 2, since "Extensive Remodel" is a defined term it is better form to simply use the term itself, versus using the words that comprise only a portion of the defined term.

9. Policy 4.19: * * * With the exception of structures rebuilt subsequent to disasters, ~~No~~ no newly constructed improvements on bluff property shall be allowed to be protected by a bluff retention device where one does not already exist. Notwithstanding the foregoing, the bluff property owner retains the right to protect principal structures, or portions thereof, that existed prior to the construction of the new improvements~~remodel~~. ~~This policy shall apply to maintenance, repairs, additions, improvements, and structures destroyed by disasters.~~

   Explanation: Change 1, PRC 30610 allows structures destroyed by disasters to be rebuilt in the same approximate location and up to 110% of the size of the original structure without a CDP. This law essentially allows the homeowner to restore her structure to the pre-disaster status quo. It follows, therefore, that the rebuilt structure would have the same rights to a BRD that the original structure enjoyed. Change 2, the last sentence is confusing and not needed in light of the above.

10. Policy 4.20: Notwithstanding the above, bluff property owners shall have the right to repair and maintain ~~a~~ legal non-conforming bluff ~~home~~ top structures provided such repairs and/or maintenance do not constitute ~~it is not determined to be~~ an ~~extensive~~ Extensive ~~remodel~~Remodel. ~~This policy as defined in Chapter 8 shall apply to maintenance, repairs, additions, improvements and to structures destroyed by disasters.~~

    Explanation: Change 1, the right to repair and maintain extends beyond just the bluff home, but to all legally non-conforming structures. Change 2, this last sentence is confusing and unnecessary so it should be deleted.

11. Policy 4.22: Require that any new accessory structures on bluff properties to be constructed in a manner that allows easy relocation landward or removal should

they become threatened by coastal erosion or bluff failure. The City shall also condition CDPs authorizing accessory structures with a requirement that the permittee (and all successors in interest) shall apply for a CDP to remove the accessory structure(s) if it is determined by a licensed Geotechnical Engineer that the accessory structure is in significant danger from erosion ~~or if the bluff edge retreats with within ten feet of the accessory structure as a result of erosion, landslide or other form of bluff collapse~~.

Explanation: New accessory structures should be removed if there is significant danger from erosion, but there shouldn't be an automatic, inflexible removal rule just because the structure is within 10 feet from the bluff edge. This should be decided on a case by case with engineering input based on the totality of the circumstances at hand.

12. Policy 4.27: * * *. This data shall be used to establish the GSL as the estimated location on the bluff property that would demonstrate a minimum factor of safety against sliding of 1.5 (sliding) or 1.2 (pseudostatic, k=0.15 or determined through analysis by the geotechnical engineer) ~~for the economic life of the home~~ as of the date of the development application as determined by a quantitative slope stability analysis using shear strength parameters derived from relatively undeformed samples collected at the site. * * *

Explanation: Up until the early 2000s, the Uniform Building Code covered all development throughout the United States, recently replaced by the International Building Code (IBC), with the State of California providing minor modifications to the IBC, creating the California Building Code or CBC.

These three building codes require that all engineered structures, including manufactured slopes and, by extension, existing slopes supporting new structures, are to have minimum factors of safety of 1.5. No code has ever specified that the factor of safety minimum must exist for the entire economic lifespan of the structure in question. This is nothing more than a concept developed by a CCC staffer and, to our knowledge, is not a generally engineering principal outside of the CCC.

Specific to this question, the City of Solana Beach retained Attorney Michael Colantuono to address, among other things, the required bluff-top setback lines then being proposed by Coastal Staff. This work was, in part, performed to respond to comments on the City's MEIR, wherein Coastal Staff wanted to include this more restrictive interpretation of bluff-top setbacks. Mr. Colantuono gave a fairly strong position, stating that this combined setback likely would constitute a taking and something that the City could not defend itself against in any subsequent litigation. Colantuono minced no words, recommending that the City not adopt this overly restrictive setback, explaining that the current setback requirements essentially mandated that buildings be set back landward of the estimated bluff-top erosion alignment that would exist in 75 years, or a minimum of 40 feet, whichever number was greater.

Please recall that the mechanism of erosion, and hence bluff retreat, essentially results in a translation of the existing sea cliff profile landward at some annualized erosion rate. This is very different than the numerical calculations of slope stability, which for the Solana Beach coastal bluffs, results in a circular hypothetical failure geometry that toes out on the face of the sea cliff at the geologic contact between the Torrey Sandstone and the Bay Point Formation, and then intersecting the building pad surface anywhere from 30 to 50 feet landward of the top-of-bluff, depending upon the steepness of the upper sloping portion of the terrace deposits. Thus, Colantuono reasonably argued that it is this landward translation of the profile that should be used as the basis for a bluff-top setback or, as appropriate, a minimum of 40 feet; a number that was arbitrarily chosen by the Coastal Commission at the end of the economic lifespan of a structure. It is unreasonable to calculate the 1.5 factor of safety line at the end of the economic lifespan of a structure, which would be another 30 to 50 feet landward of the annualized retreat of the profile at the end of the 75-year period. Such a policy is overly conservative, not a recognized engineering principle, and is simply unnecessary from a design point of view.

13. [Old] Policy 4.36 (Deleted, Should Be Restored): Other than to reconstruct a Bluff Home that was previously entitled to a Bluff Retention Device and replaced subsequent to a disaster pursuant to LUP Policy, no new foundation footings shall be permitted in the Geologic Setback Area.

    Explanation: This is merely a recital of PRC 30610 (g)(1). This policy should be preserved so that future homeowners will not be unfairly subjected to having to prove to future City planners that the law allows them to rebuild subsequent to a disaster without a CDP. Given the substantial setback requirements, this language also conforms with current City policy which would allow homes to cantilever into the GSA as long as the foundation footings themselves are landward of the GSL.

14. Policy 4.40, Tier 1 – Administrative CDPs: * * * Tier 1 projects would include, but are not limited to, such things as drainage modifications, removal, relocation, or code compliant minor interior remodeling or landward additions to bluff homes and at grade accessory structures ~~at grade with the bluff home~~; repair and maintenance of, and renewal permits for, bluff retention devices including installation of a return wall; * * *

    Explanation: Change 1, since many bluff properties are sloped to the street, it might not be possible for accessory structures to be "at grade" with the bluff home yet they are not a principal structure and therefore require only administrative review. The change makes this clear. Change 2 would be unnecessary if the sunset provision related to the life of the BRD is deleted as requested. If it is not deleted, this modification helps to rectify the unfairness of a sunset provision, especially one as short as 20 years.

15. Policy 4.42: Provide for reasonable and feasible mitigation for the net impacts of all bluff retention devices which consists of the payment of Sand Mitigation Fees to the City and Public Recreation Fees to the CCC.

    Explanation: CEQA, and fairness, dictate that mitigation fees be based on net, not gross, impacts. It is undisputed that BRDs provide public benefits in the form of safer more useable beaches and protection of public infrastructure as written in the MEIR and stated by Mr. Colantuono. These public benefits should be monetized and mitigation fees should be adjusted accordingly as we provided in the Citizen's Committee compromise LUP document.

16. Policy 4.49: * * * Applicants who seek permits, or renewal permits, for ~~to install~~ a preferred bluff retention solution, can do so on a streamlined basis, relying on previously approved standards and designs, and shall received expedited processing from the City. As technology develops, the City will consider other preferred bluff retention devices that meet the goals and policies of the LCP, as an amendment to the LUP or within the LIP.

    Applications for all bluff retention devices where any portion of which will be sited seaward of the MHTL, as shown on the most recent MHTL Survey, shall be submitted first to the City for approval and then to the CCC, which has original jurisdiction for the portion of the bluff retention device that will be sited seaward of the MHTL. Such developments shall be subject to this LCP. For beachfront development that ~~will be subject to wave action periodically~~is completely seaward of the MHTL, ~~unless the State Lands Commission determines that there is no evidence that the proposed development will encroach on tidelands or other public trust interests. The City shall reject~~ the application ~~on the grounds that it is within the original permit jurisdiction of the CCC and~~ shall ~~direct the applicant to file his or her application with~~be submitted directly to the CCC.

    Explanation: Change 1 is needed so that the standards applied to original BRD permit applications also apply to renewal permits. Change 2 is needed to clarify that the jurisdictional question should be made with reference to the MHTL Survey then in effect. Change 3, is needed to rectify a typo (i.e., incomplete sentence), to clarify the import of these two sentences, and to correct the notion that the State Lands Commission should be, or needs to be, asked to determine jurisdiction prior to the submittal of any specific application.

17. Policy 4.52: A Seacave/Notch Infill shall be approved ~~only~~ if all the findings set forth below can be made and the stated criteria will be satisfied. ~~The permit shall be valid for a period of 20 years commencing with the completion of construction.~~

    Explanation: Change 1, the word "only" here is confusing and its deletion does not change the meaning of the sentence. Change 2, the addition of "will be" makes this consistent with Policy 4.56. Change 3, the sunset provision should be deleted for the reasons set forth in the beginning of this letter.

a. Based upon the advice and recommendation of a licensed Geotechnical or Civil Engineer, the City makes the findings set forth below:

   i. A slope stability analysis demonstrates a factor of safety of less than 1.5 (static) and, that a bluff failure is imminent that would threaten a bluff home, city facility, city infrastructure, or other principal structure, or pose an undue risk to the public safety.

      Explanation: The added language tracks PRC §30235 which provides that BRDs must be approved to protect existing structures, to protect public beaches, and to serve coastal dependent uses.

   ii. No changes.

   iii. No changes.

   iv. No changes.

b. No changes.

c. The Bluff Property Owner shall arrange for and pay the costs of

   i. The licensed Geotechnical or Civil Engineer; ~~and~~

   ii. The Seacave/Notch Infill;

   iii. ~~Appropriate m~~Mitigation fees as provided for in the LCP;

   iv. All necessary repairs, maintenance, and if needed removal.

      Explanation: These changes are grammatical and intended to clarify.

d. Only to the extent the City finds that the Seacave/Notch Infill encroaches on the public beach or up on the bluff face such that coastal resources are adversely impacted, then the City shall impose a Sand Mitigation Fee upon the bluff property owner.

e. [PROPOSED NEW SUBPARAGRAPH – NOT NEEDED IF THE 20-YEAR SUNSET PROVISION IS DELETED AS REQUESTED]. At least 12 months prior to the expiration of the CDP authorizing the Seacave/Notch Infill, the then current bluff property owner shall apply to the City for a renewal permit. The City shall process this permit as a Tier 1 – Administrative Coastal Development Permit (See Policy 4.40). The City shall expeditiously issue a 20-year renewal CDP for the Seacave/Notch Infill as long as the applicant demonstrates that the conditions supporting the issuance of the original CDP still exist. The City shall impose all applicable mitigation fees for the renewal period only, as set forth in the LCP, taking into account mitigation fees paid to date. There shall be a rebuttable presumption in favor of approval of the renewal CDP. If the renewal CDP is not issued, then the applicant shall be entitled to a refund of any "unearned" mitigation fees (i.e., fees paid for future impacts that did not materialize by the expiration date of the original or renewal CDP).

Explanation: If there is to be a sunset provision, this renewal provision doesn't make it legal, but it makes it tolerable because it will greatly reduce uncertainty and somewhat reduce the impacts to market value that the sunset provision would otherwise impose on affected bluff top properties.

18. Policy 4.53: Coastal structures shall be approved by the City ~~only~~ if all the following applicable findings can be made and the stated criteria will be satisfied. ~~The permit shall be valid for a period of 20 years commencing with the completion of construction.~~

Explanation: See comments to Policy 4.52 above.

Based upon the advice and recommendation of a licensed Geotechnical or Civil Engineer, the City makes the findings set forth below:

i. A slope stability analysis demonstrates a factor of safety of less than 1.5 (static) and, that a bluff failure is imminent that would threaten a bluff home, city facility, city infrastructure, or other principal structure, or pose an undue risk to the public safety.

Explanation: See comments to Policy 4.52 above.

ii. The coastal structure is more likely than not to preclude the need for a larger coastal structure.

Bullet Point No. 5:

- Removal and relocation of all, or portions, of the affected bluff home, city facilities, or city infrastructure, taking into account reasonable architectural standards and impacts to market value.

Explanation: Removal and relocation of a bluff home or portions of it should not be required where doing so would result in a dysfunctional floorplan or significantly reduce the market value of the house. Doing so could constitute a regulatory taking. Accordingly, reasonable architectural standards and impacts to market value must taken into account when considering the removal/relocation alternative.

iii. No changes.

iv. The location, size, design and operational characteristics of the proposed coastal structure will not create a significant adverse effect on adjacent public or private property, natural resources, or public use of, or access to, the beach, beyond the environmental impact typically associated with a similar coastal structure as identified in the MEIR, or any applicable CEQA/NEPA document, and for which appropriate and reasonable mitigation fees are assessed. ~~and the~~

~~coastal structure is the minimum size necessary to protect the principal structure, has been designed to minimize all environmental impacts, and provides mitigation for all coastal and environmental impacts, as provided for in this LCP.~~

Explanation: Reference to the MEIR or other CEQA/NEPA document makes this section consistent with other policies within this LUP (e.g., Policy 4.52(A)(4), and it makes good sense because it provides a reasonable reference point. The deleted language is found elsewhere in the LUP and because it is duplicative, it is not needed here.

b. No changes

c. Any pre-existing deed and/or permit restrictions applicable to the bluff property or bluff home shall be reviewed and, where legally enforceable and logistically appropriate, enforced by the City ~~to bring any such pre-existing conditions into conformance with the LCP, subject to any requirements of the CCC, and to the vested rights of the bluff property owner~~.

Explanation: The deed and/or permit restrictions are always in writing and constitute contractual agreements between the bluff property owner and the enforcing governmental agency/public. If the restriction is enforceable, the document speaks for itself and, as a form of contract, cannot be expanded to conform with the LCP.

d. [PROPOSED NEW SUBPARAGRAPH – NOT NEEDED IF THE 20-YEAR SUNSET PROVISION IS DELETED AS REQUESTED]. At least 12 months prior to the expiration of the CDP authorizing the Coastal Structure, the then current bluff property owner shall apply to the City for a renewal permit. The City shall process this permit as a Tier 1 – Administrative Coastal Development Permit (See Policy 4.40). The City shall issue a 20-year renewal CDP as long as the applicant demonstrates that the conditions supporting the issuance of the original CDP still exist. The City shall impose all applicable mitigation fees for the renewal period only, as set forth in the LCP, taking into account mitigation fees paid to date. There shall be a rebuttable presumption in favor of approval of the renewal CDP. If the renewal CDP is not issued, then the applicant shall be entitled to a refund of any "unearned" mitigation fees (i.e., fees paid for future impacts that did not materialize by the expiration date of the original or renewal CDP).

Explanation: See comments to Policy 4.52 above.

19. Policy 4.54: The bluff property owner shall pay for the cost of the coastal structure or Infill and pay to the City a Sand Mitigation Fee and a Public Recreation Fee if assessed by the CCC. These mitigation fees are not intended to be duplicative and are intended to provide mitigation for all potential impacts to coastal resources from shoreline protective devices. It is anticipated that fees assessed as required by the LCP will be in conjunction with, and not duplicative with, the mitigation fees

typically assessed by the CCC and CSLC for impacts to coastal resources from shoreline protective devices. Therefore, if the bluff property owner is assessed fees by governmental agencies other than the City or CCC (e.g., CSLC), the bluff property owner shall receive a dollar-for-dollar credit for such fees against the Sand Mitigation Fee and/or Public Recreation Fee.

Explanation: Generally speaking, it is only fair that the bluff top homeowner who builds a BRD be subject to a finite set of potential mitigation fees. The Citizen's Committee agreed on this. The nature of California local governments and governmental agencies (e.g., CCC) is to add new fees and new conditions with each new project approval. The suggested language provides a backstop against such practices, which are oftentimes abusive, depress the economy, and cause industry to leave the state for other jurisdictions. More specifically, the Land Lease Fee charged by the State Lands Commission to the bluff top homeowner duplicates the Public Recreation Fee. If the homeowner is "renting" the space, it should theoretically be hers to use exclusively, and she should not also be required to reimburse the public for theoretically using recreation space while she holds an exclusive leasehold interest in that same space. Furthermore, the BRD increases the amount of safe area in which the public can recreate.

Sand Mitigation Fee – ~~to~~ To mitigate for ~~actual loss~~the delayed deposit of beach quality sand which would otherwise have been deposited on the beach in a gradual fashion but for the coastal structure. ~~For all development involving the construction of a shoreline protective device,~~ a Sand Mitigation Fee shall be collected which shall be used for ~~each~~ sand replenishment and/or retention purposes. The mitigation fee shall be deposited into an interest-bearing account designated by the City Manager of Solana Beach in lieu of providing sand to replace the beach quality sand deposit that would be ~~lost~~ delayed due to the impacts of any proposed protective structure. The methodology to determine the appropriate mitigation fee ~~has been approved by the CCC and~~ is contained in Appendix A. The funds shall solely be used to implement projects which provide sand to the City's beaches, not to fund operations, maintenance, or planning studies except as needed to facilitate implementation of an actual mitigation project that would put sand on the beach.

Explanation: In the case of BRDs, the Sand Mitigation Fee (SMF) is illegal in the context of a BRD approval mandated by PRC §30235. It is black letter law that the authority to impose a condition derives from the authority to deny a permit. If the government may not deny the permit in the first place, then it may not impose a condition on that permit unless such a condition is expressly enumerated in the authorizing statute. (Nollan v. California Coastal Commission (1987) 483 U.S. 825). Under PRC §30235, the only condition that may be imposed is a requirement that BRDs be designed to minimize sand impacts. No other fees are authorized. This position, notwithstanding, we recognize that the SMF is not likely to go away anytime soon. However, with respect to bluff sand, the impact of a coastal structure is not necessarily the permanent removal of sand from the

coastal system. Instead, the impact is merely the delay of gradual sand deposits. Thus, a SMF that requires the bluff property owner to pay an upfront in-lieu fee that represents the complete removal of the sand from the system is not in line with the actual impact.

The unfairness of this fee is underscored if the life of the BRD is limited by a 20-year sunset provision. In the context of a 20-year BRD, the impact on bluff sand is not the permanent removal of sand from the system, but the impact of delaying the gradual deposit of such sand to the beach for the 20-year permit period. Thus, it will be important for the City to revise Appendix A so that the SMF addresses the actual impact, not the impact presupposed by the CCC's formula. To be fair, whatever form the SMF takes, should also factor in the gradual nature of bluff sand deposits and not charge a fee based the idea of a full immediate impact. That is, if the deposit is one that occurs slowly over the 20-year period, the resulting fee cannot be an in lieu fee that demands a 100% upfront payment.

All of this being said, the proposed SMF may be acceptable if the 20-year sunset provision is removed or the renewal provisions suggested as new policies 4.52(E) an 4.53(D) are approved.

20. Policy 4.56 – An upper bluff system shall be approved ~~only~~ if all the following applicable findings can be made and the stated criteria will be satisfied.

    Explanation: See Policy 4.52 above.

    a. Based on the advice of a licensed Geotechnical Engineer and certified Engineering Geologist selected by the applicant, the City makes the findings set forth below.

        i. A slope stability analysis accepted by the City demonstrates a factor of safety of less than 1.5 (static) and that a bluff failure is imminent that would threaten a bluff home, city facility, city infrastructure, or other principal structure, or pose an undue risk to the public safety.

        ii. ~~The bluff home, city facility, city infrastructure, and/or principal structure is more likely than not to be in danger within one year after the date an application is made to the City.~~

        Explanation: these changes simply combine 1 and 2 and make it more consistent with the way that Policies 4.52 and 4.53 are constructed.

21. Policy 4.58 – To achieve a well maintained, aesthetically pleasing, and safer shoreline, coordination among property owners regarding maintenance, and repair of all bluff retention devices is strongly encouraged. This may also result in cost savings through the realization of economies of scale to achieve these goals by coordination through an assessing entity, such as geologic hazard abatement district. All bluff retention devices existing as of the date of certification of the LCP, to the extent they do not conform to the requirements of the LCP, shall be deemed non-conforming. Although a bluff property owner may elect to conform his/her/its

bluff property or bluff retention device to the LCP at any time. ~~A,~~ all bluff properties with non-conforming bluff retention devices shall only be required to comply with the provisions hereunder governing ~~acquisition rights and~~ the repair~~,~~ and maintenance~~, and removal~~ of ~~a~~ bluff retention devices as a condition of the issuance of a future discretionary Coastal Development Permit that relates to existing or new bluff retention devices. Additionally, no existing bluff retention device shall require structure modification for the sole purpose of facilitating removal at a later date; however, if the City finds than an existing bluff retention device is structurally unsound, is unsafe, or is materially jeopardizing contiguous private or public property for which there is no other adequate and feasible solution, then the City may require reconstruction of the bluff retention device or the construction of a new bluff retention device that adequately protects contiguous properties and the public safety.

Explanation: Change 1, the CCC favors GHADs and sees them as perhaps the best means for bringing about regional sand replenishment. Change 2, acquisition rights and removal should be deleted for consistency with the balance of the LUP (i.e., with the removal of the 2081 Compromise, these two concepts are no longer part of the LUP). Change 3, existing BRD conformance with the LCP should not be required for discretionary CDPs that are unrelated to the BRD itself. Change 4, this language will help the City and its responsible bluff top property owners protect themselves from bluff top property owners who refuse to rectify unsafe conditions through responsible bluff management. In addition, a GHAD would handle these situations very effectively.

22. Policy 4.62 – All new bluff property development shall be setback from the bluff edge a sufficient distance to ensure ~~that it will not be endangered by erosion for the projected economic life and has~~ a minimum geologic stability factor of 1.5 at the time of construction. For purposes of this Policy, stable is defined as a demonstrated minimum factor of safety against sliding of 1.5 (static) or 1.2 (pseudostatic, k=0.15) as determined by a quantitative slope stability analysis using shear strength parameters derived from relatively undeformed samples collected at the site. In no case shall the setback be less than 40 feet~~, and only if it can be demonstrated that the structure will remain stable, as defined above, at such a location for its economic life~~. Existing ~~principal~~ bluff top structures may be maintained or remodeled as long as such work does not increase the floor area ratio for the property or result in a significant increase in loads on the existing foundation. ~~within 25 feet of the top edge of a coastal bluff, based upon an engineering geology report prepared by a duly licensed engineering professional showing that: (1) the site is stable enough to support the development with the proposed bluff edge setback; and (2) that the development can be designed so that it will neither be subject to nor contribute to significant bluff instability for its economic life. This requirement shall apply to the principal structure and accessory or ancillary structures such as guesthouses, pools, tennis courts, cabanas, and septic systems etc.~~ Ancillary structures such as decks, patios, and walkways that do not require structural foundations may extend into the setback area to a minimum

distance of five feet from the bluff edge. All new development including, but limited to principal structures, additions, and ancillary structures, shall be specifically designed and constructed such that ~~it~~ they could be removed in the event of endangerment. Ancillary structures shall be removed or relocated landward when threatened by erosion. Slope stability analyses and erosion rate estimates shall be performed by a licensed Geotechnical Engineer or certified Engineering Geologist.

Explanation: Changes 1 and 2, see the explanation under Policy 4.27 above. Change 3, bluff property owners must be allowed to maintain and repair their property under all circumstances. The City cannot unduly burden the right to maintain, which does not require a CDP as a point of fact, with conditions that could potentially make it impossible for owners to undertake such tasks. In addition, remodels that do not increase the degree of non-conformity must also be permitted in accordance with law. Change 4, the last deleted sentenced is struck through because it is unnecessary and confusing.

23. Policy 4.64 – ~~Existing~~ All bluff retention devices, including bluff retention devices existing prior to the adoption of the LCP, shall be promptly repaired and maintained by the bluff property owner as necessary to promote visual quality and public safety. ~~which are not considered preferred bluff retention devices and do not conform to the provisions of the LCP, including the structural or aesthetic requirements may be repaired and maintained to the extent that such repairs and/or maintenance conform to the provisions of the LCP.~~

Explanation: The suggested changes are clarifying and ensure that BRDs will be properly maintained, but not subject to unnecessary and costly changes.

24. Policy 5.46 – Existing, lawfully established bluff homes ~~located on bluff property and~~ built prior to the adopted date of the LUP that do not conform to the provisions of the LCP may be maintained~~,~~ and repaired. Additions and improvements to such structures may be permitted provided that such additions or improvements themselves comply with the current policies and standards of the LCP. Extensive remodels to non-conforming bluff homes shall not be ~~Demolition and reconstruction that results in the demolition of more than 50 percent of the exterior walls of a non-conforming structure is not~~ permitted unless the entire structure is brought into conformance with the policies and standards of the LCP. Non-conforming uses or structures may not be increased or expanded into additional locations or structures.

Explanation: These changes result in conformity with the balance of the LCP.

25. Chapter 8 – Definitions – Coastal Dependent Development or Use means any development or use which requires a site on, or adjacent to, the sea to be able to ~~function~~ occur at all (e.g., public beach use).

Explanation: The suggested changes more accurately describe the meaning of this phrase. It is important because it one of the 3 criteria that mandates the approval of a BRD. The word "function" implies that the coastal dependent use must be of a machine origin. However, the term is broader than this. An earlier version of the Act used the

term "coastal dependent structures." If this early language had become law then perhaps the current definition would be accurate. However, an amendment to the Act changed "coastal dependent structures" to coastal dependent use" resulting in a far broader application of the phrase. Since safe use of the beach, especially in a crowded urban environment, is coastal dependent, it follows that public beach use is a coastal dependent use within the meaning of PRC §30235.

26. Chapter 8 – Definitions – Imminent – means an occurrence that is reasonably foreseeable within ~~12~~ 24 months from the ~~time the determination of imminence is made~~date that an application for a Bluff Retention Device is submitted to the City or Commission.

    Explanation: this change will lead to smaller BRDs, a central policy of the LCP, and one of the primary goals of the Citizen's Committee's LUP. If you shorten the imminence to 12 months, larger BRDs will likely be needed.

27. Chapter 8 – Definitions – Passive Erosion is the process whereby the placement of coastal structures at the base of a bluff fixes the back boundary of the beach which may ~~causing~~ cause the width of the beach to decrease over time. This process occurs ~~so long as~~only where the shoreline on the beach is experiencing a net retreat as a result of natural or man-made conditions~~, a net sea level rise, or natural seacliff retreat~~.

    Explanation: The suggested language provides a more accurate description of passive erosion, as it may occur in the City. Studies by Flick and others have shown that beach width does not necessarily decrease if there is a BRD in place (CITE). In point of the fact, the widest, most reliably accessible beach area in the City is the beach in front of the Del Mar Beach Club which is protected by what may be the oldest BRD on City beaches. What these studies and this example tell us is that beach width is determined by the broader dynamics within the littoral cell, and the disruption caused by mankind's destruction of nature's sediment delivery systems.

28. Chapter 8 – Definitions - Principal Structure: add language that protects reasonable access around the structure. "Principal Structure means a bluff home, Marine Safety Center, Fletcher Cove Community Center or other significant bluff top building or infrastructure, such as a condominium clubhouse, and reasonable access to the perimeter of any such structure for fire safety, maintenance, etc.

    Explanation: For fire and health safety and maintenance, bluff property owners should be able to protect their principal structures along with a reasonable safe margin of land around them. A margin of 5 or 10 feet should suffice.

29. Chapter 8 – Definitions[2] – Sand Cost is ~~means the cost of one~~$7.66 per cubic yard of sand for projects commenced before December 31, 2012. Thereafter, the Sand Cost shall increase yearly by 3% or Consumer Price Index, whichever is less, unless the

[2] This definition appears again in Appendix A, the Sand Mitigation Fee. The suggested changes should be made in both places.

applicant can demonstrate that a different amount is fair and reasonable given the totality of the circumstances~~assuming a minimum of 100,000 cubic yards of Beach Quality Sand is purchased and delivered to the beach~~.

Explanation: The CCC has been unfairly imposing a per cubic yard sand cost based on an unrealistic delivery method (i.e., trucking) which results in an artificially high sand cost. The sand cost should never exceed the actual cost per cubic yard of sand incurred by SANDAG or other governmental agency in the conduct of regional sand replenishment activities through offshore dredging. SANDAG's sand cost for RBSB II is $7.66 per cubic yard. Historically, the CCC has autocratically imposed a sand cost that varies from $15 to $25 per cubic yard. This amount is unjustified and punitive. This change needs to be made in Chapter 8 and in Appendix A.

30. Chapter 8 – Definitions – Upper Bluff System means a system or device that ~~complies with the specific design, aesthetic, and structural specifications, which the City has adopted that~~ is designed to retain a portion of a bluff located above areas subject to marine erosion.

    Explanation: these changes make the definition of a UBS consistent with the definitions of notch infills and coastal structures. A UBS does not, by definition, need to be a preferred solution. Most probably it will be, but the definition of a UBS should not be so limited.

Thank you for the opportunity to submit these comments. Please ensure this letter is included in the public record. If you require any further clarification or explanation, please do not hesitate to contact me.

Sincerely yours,

Jon Corn

Exhibit B

COPY

IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

FIRST APPELLATE DISTRICT, DIVISION FIVE

SURFRIDER FOUNDATION, **Petitioner and Appellant,** **v.** **CALIFORNIA COASTAL COMMISSION,** **Defendant and Respondent,** **WALTER CAVANAGH, et al.,** **Real Parties In Interest and Respondents.**	Case No. A110033

San Francisco County Superior Court No. CPF 03-503643
The Honorable James L. Warren, Judge

BRIEF OF RESPONDENT CALIFORNIA COASTAL COMMISSION

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B. The Commission's Interpretation of Section 30235 Is Compelled by Both the Language of the Statute and the Legislature's Intent to Allow Seawalls Where Necessary to Protect Life and Property.

In the face of this, Surfrider maintains one argument. It contends that the word "existing" as used in section 30235[5/] (and implicitly LCP policy S-6) means "existing as of January 1, 1977," the date that the Coastal Act went into effect; in other words, the Commission may approve a seawall only to protect structures that existed on January 1, 1977. Because Cavanagh's house did not exist until 1998, Surfrider contends that, as a matter of law, the Commission had no discretion to approve his seawall.

This argument is meritless. The Commission's interpretation follows the plain language of the statute: "Existing" means "existing" and Cavanagh's house legally existed on the date that he applied for the seawall.

The Commission's interpretation makes sense and comports with the Legislature's intent. Protective shoreline devices are disfavored under the Coastal Act, but the Legislature did not ban them. Even Surfrider concedes that, at least as to structures that predated the Coastal Act, section 30235 allows the Commission to approve protective devices in appropriate circumstances. As proof of this, Surfrider does not challenge the Commission's decision to approve a seawall to protect the 121 Indio residence that predated the Coastal Act. (Surfrider Br. at p. 7, fn. 7.)

The question implicitly raised by Surfrider—but one that it scrupulously

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5. Section 30235 provides in part:

> Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply

avoids asking—is whether the Legislature intended that, as a matter of law, the Commission may not approve seawalls to protect structures that were legally built after the enactment of the Coastal Act regardless of how much life and property might be lost if the structures were not protected. Although Surfrider nods in the direction of legislative intent, its abstract conception of legislative intent is divorced from reality and common sense. As the trial court pointed out, section 30235 protects a wide range of existing structures, not just private residences. (CT 317, fn.6.) Assume, for example, that the Commission in the 1980's approved a state park facility that included a parking lot, restrooms, landscaping, public walkways and stairs that were later severely damaged by winter storms. In Surfrider's view, the Commission would be precluded from approving a seawall to protect this public park facility regardless of how endangered it might be. But Surfrider does not demonstrate that the Legislature would have intended such a harmful result.

Although Surfrider asserts that the Commission's interpretation of section 30235 conflicts with section 30253 (Surfrider Br. at pp. 34-39), the Commission's interpretation harmonizes the two statutes because it gives effect to the Legislature's wish to avoid the harmful impacts of seawalls as well as its wish to protect legally existing structures in danger from erosion. Section 30253 provides in part that:

> New development shall: . . . [¶] (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.

Section 30253 requires that new development be constructed in a way that does not require the later construction of protective devices. It does not govern already existing development. Read together, sections 30235 and 30253 nicely complement each other. Section 30253 assures that new development is constructed and sited in a way that avoids the future need for a seawall. Section

30235 recognizes that, despite the best efforts to avoid the later need for seawalls, it may sometimes be necessary to protect lives and property endangered by erosion. Therefore, the Commission may approve seawalls for post-Coastal Act structures where the effort to avoid a seawall has failed and the new structure is in danger from erosion.

C. When the Word "Existing" Is Used in Chapter 3 of the Coastal Act, It Refers to Currently Existing Conditions Because Permit Applications Are Typically Evaluated Under Conditions That Exist at the Time of the Application.

When a word or phrase has been given a particular meaning in one part of a law it typically is given the same meaning in other parts of the law. (*Stillwell v. State Bar of California, supra,* 29 Cal.2d at p. 123.) The manner in which the word "existing" appears throughout the Coastal Act confirms the Commission's interpretation.

The word "existing" appears frequently in the Coastal Act but one reference stands out. Section 30236 limits the approval of flood control projects to the situation "where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development." Once again, the Legislature balanced the need to protect the public from physical harm with the need to avoid the adverse impacts of a particular type of development (flood control projects). As in section 30235, the Legislature found that it could prevent the destruction of post-Coastal Act development by permitting the erection of protective structures but adopting strict standards calibrated to avoid environmental harms.

The use of "existing" in the last sentence of section 30235 makes a similar point. This sentence provides that "[e]xisting marine structures causing water stagnation contributing to pollution problems and fishkills should be phased out

or upgraded where feasible." Suppose that the Commission in 1978 approved a permit for a marine structure that today is causing water stagnation and pollution despite the imposition of permit conditions in 1978 designed to avoid those impacts. The polluting marine structure should be treating as "existing" and phased out, even though it was constructed after the Coastal Act's passage.

The Legislature's use of the word "existing" in the remainder of Chapter 3 of the Coastal Act also provides powerful confirmation of the Commission's interpretation of the word "existing." Chapter 3 (Pub. Resources Code, §§ 30200-30265.5) contains the resource policies that the Commission applies when reviewing permit applications. (*Id.*, § 30604(a).) The word "existing" appears throughout Chapter 3 and each time refers to conditions as they exist at the time of the application, not at the time of the Coastal Act's passage. In addition to sections 30235 and 30236, the references to "existing" in Chapter 3 include:

- Providing additional berthing space in "existing harbors" (Pub. Resources Code, § 30224);
- Maintaining "existing" depths in "existing" navigational channels (*id.*, § 30233(a)(2));
- Allowing maintenance of "existing" intake lines (*id.*, § 30233(a)(5));
- Limiting diking, filling and dredging of "existing" estuary and wetlands (*id.*, § 30233(c));
- Restricting reduction of "existing" boating harbor space (*id.*, § 30234);
- Limiting conversion of agricultural lands where viability of "existing" agricultural use is severely limited (*id.*, §§ 30241, 30241.5);
- Restricting land divisions outside "existing" developed areas (*id.*, § 30250(a));
- Siting new hazardous industrial development away from "existing"

development (*id.*, § 30250(b));

- Locating visitor-serving development in "existing" developed areas (*id.*, § 30250(c));
- Favoring certain types of uses where "existing" public facilities are limited (*id.*, § 30254));
- Encouraging multicompany use of "existing" tanker facilities (*id.*, § 30261); and
- Defining "expanded oil extraction" as an increase in the geographical extent of "existing" leases.

These Chapter 3 provisions logically refer to conditions that exist at the time of a permit application. It would make little sense to evaluate permit applications under conditions as they existed thirty or more years ago and ignore the considerable changes that have taken place along California's coast since the Coastal Act's passage. Consistent with the use of "existing" throughout Chapter 3, section 30235 should be construed to refer to currently existing structures.

Outside of Chapter 3, there are a number of other Coastal Act provisions that treat "existing" as currently existing. (See Pub. Resources Code, § 30705(b) ["existing water depths"]; § 30711(a)(3) ["existing water quality"]; § 30610(g)(1) ["existing zoning requirements"]; *id.*, 30812(g) ["existing administrative methods for resolving a violation"].) In addition, the Legislature twice used specific dates when it intended "existing" to mean something other than currently existing. Section 30610.6 limits the section's application to any "legal lot existing . . . on the effective date of this section." Similarly, section 30614 refers to "permit conditions existing as of January 1, 2002." (*Id.*, § 30614.)

Surfrider's response is anemic. Surfrider points to four Coastal Act sections where, it contends, the word "existing" refers to conditions existing on

the date of the Coastal Act's passage. (Surfrider Br. at pp. 25-26 [citing sections 30001(d), 30004(b), 30007 and 30103.5(b)].) Sections 30001(b) and 30007 juxtapose "existing" with references to future developments and future laws, expressing the Legislature's specific intent that "existing" in those provisions refers to conditions on the date of the Coastal Act's passage. Moreover, Surfrider's citations are mostly found in the "findings" section of the Coastal Act, in which the Legislature would be expected to refer to conditions as they then existed to explain the need for the Act. None of the provisions upon which Surfrider relies (other than section 30235 itself) are found in Chapter 3 of the Coastal Act.

The Commission's harmonious construction of the Coastal Act confirms that the Legislature intended that section 30235 be applied to structures that existed on the date of the permit application.[6/]

D. The Court Should Defer to the Commission's Interpretation of Section 30235 and the LCP.

Surfrider incorrectly contends that the Commission's interpretation of section 30235 is "vacillating" and not entitled to deference. (Surfrider Br. at pp. 41-45.) The Commission's interpretation of section 30235 has been consistent, and provides more weight to support the Court's interpretation.

Courts "must give great weight and respect to an administrative agency's interpretation of a statute governing its powers and responsibilities." (*Mason*

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6. Three years ago, the Legislature considered adding the specific language that Surfrider seeks to read into section 30235. AB 2943, if adopted, would have defined "existing structure" in section 30235 to mean "a structure that has obtained a vested right as of January 1, 1977, the effective date of the California Coastal Act of 1976." (CT 119-120 [Sen. Amend. to Assem. Bill No. 2943 (2001-2002 Reg. Sess.) Aug. 26, 2002].) AB 2943 died on the Senate inactive file on November 30, 2002. (CT 122.) Although "only limited inferences can be drawn from [unpassed bills]" (*DeVita v. County of Napa* (1995) 9 Cal.4th 763, 795), the Legislature's rejection of AB 2943 undermines Surfrider's interpretation of section 30235.

v. Retirement Board of the City and County of San Francisco (2003) 111 Cal.App.4th 1221, 1228 (Jones, J).) "Consistent administrative construction of a statute, especially when it originates with an agency that is charged with putting the statutory machinery into effect, is accorded great weight." (*Ibid.*)

Here, the Commission evaluated the seawall project for conformity with the City's LCP that the Commission previously had certified. (See Pub. Resources Code, §§ 30512, 30512.1, 30512.2.) The Commission's interpretation of a certified LCP is entitled to deference because, when an appeal reaches it, the Commission is charged with putting the LCP into effect. (*Mason v. Retirement Board of the City and County of San Francisco, supra*, 111 Cal.App.4th at p. 1228; see also Pub. Resources Code, § 30625(c) [Commission decisions shall guide local government actions under the Coastal Act].) The Commission's interpretation of section 30235 is entitled to no less weight, because the Commission alone is responsible for administering the Coastal Act.

In addition, the Court should accord the Commission's interpretation of "existing structures" great weight because the Commission has consistently interpreted section 30235 to refer to structures that exist at the time of the application. (See *Yamaha Corp. of America v. State Bd. of Equalization* (1998) 19 Cal.4th 1, 12.) As proof of this, the Commission's chief counsel confirmed at the public hearing that the Commission has "interpreted existing structure to mean whatever structure was there legally at the time that it was making its decision." (11 AR 2018-2019.)

Surfrider contends that the Commission has "vacillated" because in two previous permit decisions the Commission found that it did not need to reach the issue whether the term "existing structure" was limited to pre-Coastal Act structures. (Surfrider Br. at pp. 41-45.) The Commission's decision to refrain from reaching an issue that was not raised by a pending permit application

reflects judicious decisionmaking, not vacillation. (See *id.* at p. 44 [conceding that the issue was not before the Commission].)

Surfrider also cites the chief counsel's testimony as an additional indication that the Commission has "vacillated" in its interpretation of "existing structure." (Surfrider Br. at p. 45.) Surfrider, however, has inaccurately quoted the chief counsel's testimony, improperly inserting the parenthetical "[of existing structure]" into the quotation. (Cal. Style Manual (4th ed. 2000) § 4.16 [may not use brackets to rewrite quotation].) Surfrider then misconstrues the testimony, suggesting that the Commission has previously determined that the term "existing structure" in section 30235 applies only to pre-Coastal Act structures. Instead, the complete text of the chief counsel's statement demonstrates that the "change" to which he referred was the Commission's recent practice of incorporating a "no future seawall" condition in permits for new bluff-top development, not a change in the interpretation of "existing structure." (11 AR 2018-2019; see *post,* at p. 24.)

The Commission is not aware of a single instance in the history of the Coastal Act in which it has determined that "existing structures" in section 30235 refers only to structures that predated the Coastal Act. The Court should defer to the Commission's construction of section 30235 and the corresponding LCP provisions.

III. NONE OF SURFRIDER'S REMAINING ARGUMENTS HAVE MERIT.

Most of Surfrider's arguments have been addressed. There are a few others, but none have merit.

1. Surfrider repeatedly states that the Commission's interpretation would "entitle" or "guarantee" a seawall to any completed structure. (E.g., Surfrider Br. at pp. 4, 37, 39, 47, fn. 9.) This is a gross misstatement. The Commission's interpretation of section 30235 does not entitle or guarantee anyone a seawall.

The Commission may approve a seawall only if, at a minimum, the applicant establishes that a structure is in danger of erosion and that the seawall is designed to eliminate or mitigate the seawall's impacts on sand supply. (Pub. Resources Code, §§ 30235, 30604(a).) The applicant also would be required to satisfy numerous other conditions designed to mitigate project impacts on public access and other coastal resources. The California Environmental Quality Act also requires the Commission to evaluate feasible alternatives and mitigation measures. (Pub. Resources Code, § 21080.5(d)(2)(A).)

2. The Commission agrees that the Coastal Act should be liberally construed in favor of protecting coastal resources. (Surfrider Br. at pp. 12-13.) That rule of construction does not come into play here because the language of section 30235 and rules of statutory construction support the Commission's interpretation. The Commission's interpretation both protects coastal resources and fulfills the Legislature's intent to protect endangered structures in appropriate circumstances.

3. Surfrider argues that the legislative history of the Coastal Act supports its interpretation. (Surfrider Br. at pp. 28-32.) This argument has two components. First, Surfrider argues that the Legislature rejected the "developer friendly" coastal legislation and enacted the bill favored by environmentalists. Surfrider never explains why an "environmentally friendly" Coastal Act would necessarily require that the Commission deny seawalls to protect endangered post-Coastal Act structures.

Second, Surfrider argues that, shortly before the Coastal Act's passage, the Legislature amended SB 1277 to include the word "existing" before structures in section 30235. (Surfrider Br. at p. 32.) Surfrider provides no other evidence about this amendment. Nevertheless, Surfrider says that there was "no rational reason" why the Legislature would have added this word unless to clarify that section 30235 applied only to structures that predated the Coastal Act.

Actually, there is a very rational explanation. Had the Legislature not included the word "existing" in section 30235, applicants could apply to build seawalls to protect a future proposed structure, rather than be forced to site the proposed structure so that it would not necessitate a seawall. Far from making the word "existing" in section 30235 "surplusage," as Surfrider contends (Surfrider Br. at pp. 33-34), the Commission's interpretation harmonizes sections 30235 and 30253. Section 30253 requires that proposed new development be designed so that it does not require a seawall; without the word "existing," section 30235 could have been construed to allow a seawall for a proposed structure that would have been forbidden by section 30253.

4. Surfrider mistakenly relies on Public Resources Code section 30007.5 when arguing that the Court should resolve doubts in its favor. (Surfrider Br. at pp. 14, 15, 38.) Section 30007.5 provides that conflicts among Coastal Act policies should be resolved in a manner that on balance is most protective of coastal resources. Section 30007.5 is a mechanism for resolving policy conflicts that the Commission must employ when reviewing permit applications. (See, e.g., *Sierra Club v. California Coastal Comm'n* (1993) 19 Cal.App.4th 547, 562 [section 30007.5 authorized Commission to resolve conflict] .) It is not a directive to the courts about how to interpret provisions of the Coastal Act, but guides how the Commission should implement conflicting Coastal Act policies as they apply to a specific project. In this case, the Commission found that the project met the criteria in section 30235, and there was no conflict among applicable policies.

5. The Commission's interpretation of section 30235 does not make the "mandatory setback provisions" of section 30253 "meaningless." (Surfrider Br. at p. 4.) Enforcement of section 30253's setback provisions for new structures is meaningful because it makes seawalls unnecessary in most instances. It is only on those infrequent occasions that bluff retreat drastically exceeds its

predicted retreat that a seawall may become necessary.

6. Surfrider argues that landowners would have an incentive to mislead the Commission into approving structures through the use of "purchased science" that would misstate erosion rates with the hope of later qualifying for a seawall, and it suggests that happened here. (Surfrider Br. at pp. 39-41.) Surfrider's insinuations are misguided. There is no evidence that the applicants' experts intentionally tried to mislead anyone; the unchallenged evidence demonstrated that the bluff rate was caused by the unforeseen El Niño storms. Moreover, anyone who intentionally supplies false evidence may be subject to a permit revocation. (Cal. Code Regs., tit., §§ 13104-13108.5.) And, because no one is "guaranteed" a seawall, anyone who plays the high-stakes game proposed by Surfrider risks having their seawall application turned down.

7. Finally, Surfrider contends that the Commission's imposition of a "no new seawall" condition on recent permits for new structures exceeds the Commission's power because this condition would force the Commission to deny seawalls that might otherwise be entitled to a permit under section 30235. (Surfrider Br. at p. 47.) This case does not involve a "no new seawall" condition, and there is no reason for the Court to offer an advisory opinion about whether the Commission might impose one.

Moreover, this is a strange argument for Surfrider to make. The Commission has imposed a "no future seawall" condition on new bluff top development so that property owners will not seek a shoreline protective device in the future. (11 AR 2019.) The Commission's approach deters applicants from circumventing section's 30253 setback requirements and minimizes the need for new seawalls in the future—an approach that is consistent with the philosophy that Surfrider purports to advocate. The Commission's reasoned approach, however, undermines the need to adopt the extreme position advocated by Surfrider, which may explain Surfrider's criticism.

CONCLUSION

The trial court's judgment should be affirmed.

Dated: January 9, 2006

Respectfully submitted,

BILL LOCKYER, Attorney General
of the State of California
TOM GREENE
Chief Assistant Attorney General
J. MATTHEW RODRIQUEZ
Senior Assistant Attorney General
ALICE BUSCHING REYNOLDS
Deputy Attorney General

JOSEPH BARBIERI
Deputy Attorney General

Attorneys for Respondent
California Coastal Commission

Exhibit C

TerraCosta Consulting Group

Geotechnical Engineering
Coastal Engineering
Maritime Engineering

Project No. 01144
May 31, 2011

Mr. Jon Corn
The Axelson Corn Law Firm
1220 N. Coast Highway 101
Suite 120
Encinitas, California 92024

COMMENTS ON CODE REQUIREMENTS FOR
BLUFF-TOP SETBACKS SPECIFIC TO
SOLANA BEACH, CALIFORNIA

Dear Mr. Corn:

As a licensed Civil and Geotechnical Engineer in the State of California, and a practicing Coastal Engineer in this state, among other things, I have devoted over 30 years to the study of coastal geomorphology, or the evolution of this state's coastline. I am also a Diplomate in Coastal Engineering with the Academy of Coastal, Ocean, Port and Navigation Engineers under the auspice of American Society of Civil Engineers. It is from this background that I consider myself well qualified to discuss various engineering code requirements for appropriate bluff-top building setbacks, along with the geologic issues that must be considered when considering appropriate bluff-top setbacks.

Up until the early 2000s, the Uniform Building Code covered all development throughout the United States, recently replaced by the International Building Code (IBC), with the State of California providing minor modifications to the IBC, creating the California Building Code or CBC.

All three of these documents require that all engineered structures, including manufactured slopes and, by extension, existing slopes supporting new structures, are to have minimum factors of safety of 1.5. While most engineered structures are presumed to maintain this factor of safety of 1.5 during their economic life, to my knowledge, there has never been any building code that specifies that slopes, man-made or natural, that may be subject to erosion have any requirement for maintaining a factor of safety of 1.5 for the complete economic lifespan.

Specific to this question, the City of Solana Beach retained Attorney Michael Colantuono to address both the pros and cons of a GHAD and to speak specifically to the required

bluff-top setback lines then being proposed by Coastal Staff. I believe this work was, in part, performed to respond to Coastal Commission Staff comments on the City's MEIR, wherein Coastal Staff wanted to include this more restrictive interpretation of bluff-top setbacks. Having attended all of the Public Hearings, Mr. Colantuono gave a fairly strong position, stating that this combined setback would be considered a taking and something that the City could not defend itself against in any subsequent litigation. Mr. Colantuono minced no words, recommending that the City not adopt this overly restrictive setback, explaining that the current setback requirements essentially mandated that buildings be set back landward of the estimated bluff-top erosion alignment that would exist in 75 years, or a minimum of 40 feet, whichever number was greater.

Please recall that the mechanism of erosion, and hence bluff retreat, essentially results in a translation of the existing sea cliff profile landward at some annualized erosion rate. This is very different than the numerical calculations of slope stability, which for the Solana Beach coastal bluffs results in a circular hypothetical failure geometry that toes out on the face of the sea cliff at the geologic contact between the Torrey Sandstone and the Bay Point Formation, and then intersecting the building pad surface anywhere from 30 to 50 feet landward of the top-of-bluff, depending upon the steepness of the upper sloping portion of the terrace deposits. Thus, Mr. Colantuono reasonably argued that it is this landward translation of the profile that should be used at the basis for a bluff-top setback or, as appropriate, a minimum of 40 feet; a number that had been empirically chosen several decades ago by the Coastal Commission. At the end of the economic lifespan of a structure, it is unreasonable to at that point then calculate the 1.5 factor of safety line, which again would be 30 to 50 feet landward of the annualized landward retreat of the profile at the end of the 75-year period.

If you have any questions or require additional information, please feel free to give me a call.

Very truly yours,
TERRACOSTA CONSULTING GROUP, INC.

Walter F. Crampton, Principal Engineer
R.C.E. 23792, R.G.E. 245

WFC/jg

Exhibit D

California Coastal Commission

Report on In-Lieu Fee Beach Sand Mitigation Program: San Diego County

January 1997
(revised September 1997)

principal author	sherilyn sarb
with technical assistance by	lesley ewing
in consultation with	amy roach, staff counsel
prepared under the direction of	charles damm

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ATTACHMENT 3: **BEACH SAND MITIGATION FUND**

I. PURPOSE OF THIS REPORT

The Commission's Regional Cumulative Assessment Project (ReCAP) in its December, 1994, "Preliminary Findings and Recommendations" documented that large sections of the pilot Monterey Bay shoreline were being armored through emergency and regular permits for individual site protection. The ReCAP findings and other staff work contributed to a growing body of evidence that armoring a bluff, in addition to encroaching onto the beach and preventing its further landward migration, will reduce the amount of sand and gravel entering the littoral cell, and will cause the narrowing of an eroding beach over time and reduction in the area of sand available for recreational use.

This report is initiated through a Project of Special Merit which was implemented in San Diego County and funded through a Federal grant from the Office of Coastal Resource Management (OCRM). The objective of the Project of Special Merit is to lay the foundation for a comprehensive regional approach to regulating shoreline development, which takes into consideration the cumulative adverse impacts of shoreline armoring on the long-term availability of sandy beach areas for public recreational use. This report is a product of the San Diego project, along with two procedural guidance documents to be used in evaluating proposals for shoreline protection.

Used in conjunction with the Procedural Guidance Documents on Review of Permit Applications for Shoreline Protective Devices and on Monitoring, this report will help provide a framework for Commission staff to assess the adverse and cumulative impacts of shoreline protective devices on shoreline sand supply, and therefore, on public access and recreational opportunities. The contents of this report is technical as it contains a methodology which can be utilized to quantify the adverse effects of shoreline armoring. In addition, all of the above referenced documents identify potential measures which can be implemented to mitigate such identified effects.

The specific purpose of this report, pursuant to the requirements of Task 1.3.B of the Commission's FY 95 federal grant, is to identify the components of the in-lieu fee beach sand mitigation program which has been implemented in portions of San Diego County through the Coastal Commission's approval of coastal development permits for seawalls in the City of Encinitas and Solana Beach. The report is to analyze the application of the in-lieu fee as a condition of approval of other projects in different shoreline situations. The objective is to develop a complete program for implementation within San Diego County and to identify the constraints or limitations to implementation in other shoreline areas along the California coast.

II. MITIGATION OF IMPACTS TO SAND SUPPLY

Section 30235 of the Coastal Act requires the Commission to approve seawalls, revetments, cliff retaining walls and other such construction that alters natural shoreline processes to protect existing structures, public beaches and coastal development uses in danger from erosion and when designed to eliminate or mitigate the adverse impacts on shoreline sand supply. The Coastal Act does not contain a specific definition for mitigation. The California Environmental Quality Act (CEQA) guidelines provide a definition of mitigation for purposes of CEQA. Section 15370 of the CEQA guidelines define mitigation as:

1) Avoiding the impact altogether by not taking a certain action or parts of an action.

2) Minimizing impact by limiting the degree or magnitude of the action and its implementation.

3) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.

4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.

5) Compensating for the impact by replacing or providing substitute resources or environments.

This definition provides several alternative forms of mitigation. In mitigation by avoidance, adverse impacts are avoided altogether through alteration of project location, design, or other related aspects. Commission staff typically recommends mitigation by avoidance, if feasible, since it is the best way to prevent direct adverse impacts to public access and sand supply in association with a shoreline protective device. However, if the Commission is required to approve a shoreline altering device to protect an existing structure in danger from erosion, minimizing, rectifying or reducing project impacts are forms of mitigation that diminish the severity of the project related impacts and are required under Section 30235. Although these forms of mitigation can result in alterations to the project design, the overall integrity of the project can be preserved.

Compensation includes mitigation undertaken to replace public access or sand which is lost or adversely impacted, with access or beach of equal or greater value or size. This report is examining the use of a fee, instead of placing sand on the beach, to compensate for the impacts of seawalls on natural shoreline processes and sand supply in San Diego County. The analyst should refer to the Procedural Guidance Document on Review of Permit Applications for Shoreline Protective Devices to identify other forms of mitigation which may be appropriate when recommending approval of shoreline altering devices. As further addressed in the above referenced document, mitigation can take a variety of forms depending on various factors, including the nature of the impact, the amount of beach available, the ability to revise the proposed project and ownership of the land.

III. THE BEACH SAND MITIGATION PROGRAM — SAN DIEGO COUNTY

A. Initial Application

The Coastal Commission initiated the in-lieu fee mitigation program in response to two coastal development permit applications for lower bluff protection in the City of Encinitas in San Diego County. One application involved the construction of 9-ft high shotcrete seawalls, with tiebacks, on public property fronting six non-contiguous lots to protect existing private residential blufftop development (CDP #6-93-85 Auerbach et al). The second application was for similarly designed seawalls in the nearby section of shoreline on 8 contiguous properties (CDP #6-93-131 Richards et al). The projects represented the first proposals for armoring along a section of coastline backed by 100 foot high, very scenic coastal bluffs, where the vertical portion of the bluffs are owned by the City of Encinitas.

These public coastal resources, i.e., the bluffs, had not been altered by stairways, retaining walls, seawalls or other forms of protective devices which exist along other segments of the Encinitas shoreline. The requests were being made to stop the natural process of undercutting in order to prevent massive block falls. Some of the properties had experienced sloughage of the upper bluff which had precipitated the initial concern and prompted the permit applications. Additionally, landowners of five properties requested permits for installation of a below-ground, upper bluff retention systems, to secure the residences in the event the upper bluff should continue to erode to the point of threatening the foundation of the structures.

Pursuant to Section 30235, the Commission is required to approve a protective device which alters natural shoreline processes, such as the proposed seawalls, when there is an existing structure in danger from erosion and a seawall is required to protect it; and, when the protection is designed to eliminate or mitigate adverse impacts on shoreline sand supply. In the Encinitas examples, it was determined that protection was necessary; therefore, some form of mitigation was required, if the structures were approved, to offset the significant effects of the armoring on the adjacent public resources, including beach sand supply, and, therefore, public access and recreational opportunities. The in-lieu fee program was derived as the means to mitigate the impacts of the shoreline protective devices on beach sand supply, to be paid by the applicants in-lieu of placing sand on the beach. The payment of the fee was required as a condition of approval of the coastal development permits for the shoreline protective devices in accordance with Section 30235 of the Coastal Act.

The amount of the fee was derived through a methodology developed by the Commission staff coastal engineer to quantify the amount of sand that would replace the lost beach area and replace the amount of sand denied to the littoral cell over the life of the structure. That volume of sand is then multiplied by the cost of transporting and depositing sand on the beach in the project vicinity to determine the fee to be paid in-lieu of placing sand

on the beach to mitigate for the lost beach area and material.

At this time, the condition is specific to permits in San Diego County, because there is a regional agency, the San Diego Association of Governments (SANDAG) that has agreed to collect the fees and administer the fund. SANDAG has adopted a Shoreline Preservation Strategy for the San Diego County shoreline which acknowledges the value of beaches to recreation and tourism and, thus, to the State and regional economy, and encourages beach replenishment to protect property and maintain beaches for public recreational use over the long-term.

As mentioned, the in-lieu fee mitigation program was developed in San Diego County as a result of proposals for shoreline armoring which covered many contiguous properties and are located in areas where the bluff and the beach are in public ownership and without existing armoring. The Commission found the fee to be appropriate for several reasons including, the proposed protective devices were located on beaches used by the public; they were necessary to protect private development in danger from erosion; they would result in adverse impacts to State tidelands; there were no design modifications that would lessen or eliminate the impact; mitigation in the form of a fee would allow beach nourishment to occur in a comprehensive rather than piecemeal manner; and the fee would offset the long-term effects of the armoring on the public beach. The amount of fees required through conditions of approval of permits which have been approved by the Commission to date are shown on Attachment 3.

B. Methodology to Quantify Impacts and Calculate Fee

The methodology used to quantify the impacts and calculate the fee amount for the projects which have already been approved by the Coastal Commission was detailed in the staff reports for those projects. As part of the Project of Special Merit implemented in the San Diego office, Commission staff has considered how the methodology can be used to quantify the impacts of shoreline protective devices in other shoreline situations, and in other locations along the California coast. As a result, the staff engineer has revised the description of the methodology and referenced figures to provide an explanation of the science which is more understandable to the layman; however the equations are the same as those used to calculate the fee for the already approved projects. The revised description and figures are contained below and a revised impact analysis worksheet is attached as Attachment 1. The following methodology can be used to quantify some of the effects of a proposed shoreline protective device on sand supply and natural shoreline processes, and to help identify and support the appropriate measures to mitigate those impacts.

As stated, Commission staff has found that some of the effects which a structure may have on natural shoreline processes can be quantified. By quantifying these effects, an analyst can have a better understanding of the impacts of a proposed project and have a way to compare different project designs. Also, this quantification can provide support for any recommended mitigation conditions. Three of the effects from a shoreline protective device which can be quantified are 1) loss of the beach area on which the structure is located; 2) the long-term loss of beach which will result when the back beach location is fixed on an eroding shoreline; and 3) the amount of material which would have been supplied to the beach if the back beach or bluff were to erode naturally.

Loss of beach area on which the structure is located

Shoreline protective devices such as seawalls, revetments, gunnite facings, groins, etc. all are physical structures which occupy space. When a shoreline protective device is placed on a beach area, the underlying beach area cannot be used as beach. If the underlying beach area is public beach, the public will not be able to use the area the way it had prior to placement of the structure. This area will be altered from the time the protective device is constructed and the extent or area occupied by the device will remain the same over time, until the structure is removed or is moved from its initial location. (The only exception to this would be a structure which can spread or move seaward over time, such as a revetment.) The beach area located beneath a shoreline protective device, referred to as encroachment area, is the area of the structure's footprint (**Figure 4-2**).

The encroachment area (Ae) is equal to the width of the properties which are being protected (W) times the seaward encroachment of the protection (E). This can be expressed by the following equation:

$Ae = W \times E$

Long-term loss of beach if the back beach location is fixed.

Seawalls, revetments, gunnite facings, etc. protect the landward or backbeach property by being more resistant to wave action than the natural beach or bluff material. Because of this greater resistance to wave attack, these structures remain where they are placed. On an eroding unprotected shoreline, the natural back beach or bluff migrates landward. A shoreline protective device will halt this landward migration and "fix" the location of the back beach or bluff. If the erosion has been caused by the landward movement of waves and general landward migration of the front beach and wet beach area, the fixed position of the back beach will result in a narrowing of the useable beach. When the back beach location on an eroding beach is fixed, the beach will narrow over time shrinking to a smaller and smaller corridor between the ocean waves and the shoreline protective device. Eventually, the dry beach will disappear and waves will hit the shoreline protective device during all but the most extreme low tide events. This loss of beach occurs because the natural balance between landward movements of the fore beach and back beach or bluff has been changed by the construction of a more resistant back beach structure, preventing the landward migration of the back beach or bluff. In some cases, beach lost will be entirely public beach, i.e., the beach seaward of the mean high tide line is held in the public trust, or the beach landward of the mean high tide line is owned by a local government or other public agency such as State Parks and Recreation. In other cases, the beach lost will be both private and public, i.e., the beach seaward of the mean high tide line is held in the public trust and the beach landward of the mean high tide line is private. In all cases, as the beach narrows, there is a loss of beach sand both seaward and landward of the mean high tide line.

The actual long-term loss is equal to the actual long-term erosion times the width of property which has been fixed by a resistant shoreline protective device (See **Figure 4-3**). Since the actual amount of long-term erosion cannot be predicted, erosion is approximated by the long-term average annual erosion rate times the number of years that the back beach or bluff will be fixed. The width of the property which has been fixed can be determined from the project design. Since one of the key tests of Section 30235 is whether there is an existing structure in danger from erosion, the long-term average annual erosion rate should be provided by the applicant as information to help the analyst determine whether there is any danger from erosion and whether the shoreline protective device is needed. The same long-term average annual erosion rate which is used to determine whether there is any danger from erosion would be used to determine the approximate amount of beach area which would be lost if the landward erosion of the forebeach is not balanced by the landward erosion of the back beach or bluff.

> The area of beach lost due to long-term erosion (Aw) is equal to the long-term average annual erosion rate (R) times the number of years that the back beach or bluff will be fixed (L) times the width of the property that will be protected (W). This can be expressed by the following equation:
>
> $Aw = R \times L \times W$

Loss of material from natural back beach or bluff erosion.

Beach material comes to the shoreline from inland areas, carried by rivers and streams; from offshore deposits, carried by waves; and from coastal dunes and bluffs, becoming beach material when the bluffs or dunes lose material due to wave attack, landslides, surface erosion, gullying, etc. Coastal dunes are almost entirely beach sand and wind and wave action often provide an on-going mix and exchange of material between beaches and dunes. Many coastal bluffs are marine terraces — ancient beaches which formed when land and sea levels differed from current conditions. Since the marine terraces were once beaches, much of the material in the terraces is beach quality sand or cobble, and a valuable contribution to the littoral system when it is added to the beach. While beaches can become marine terraces over geologic time, the normal exchange of material between beaches and bluffs is for bluff erosion to provide beach material. When the back beach or bluff is protected by a shoreline protective device, the natural exchange of material either between the beach and dune or from the bluff to the beach will be interrupted and, if the shoreline is eroding, there will be a measurable loss of material to the beach. Since sand and larger grain material is the most important component of most beaches, only the sand portion of the bluff or dune material is quantified as beach material.

A seawall, gunnite facing, or revetment will prevent the material directly landward of it from eroding and becoming beach material. A seawall, gunnite facing or revetment will probably prevent some of the material above it from becoming beach material; however, some upper bluff retreat may continue unless the shoreline

protective device extends the entire height of the bluff. **Figure 4-4** shows several possible configurations of the bluff face, with a protective structure. The solid line shows the likely future bluff face location with shoreline protection and the dotted line shows the likely future bluff location without shoreline protection. The volume of total material which would have gone into the littoral system over the lifetime of the shoreline protective device would be the volume of material between the solid line and the dotted line, along the width of protected property. The actual erosion cannot be predicted, so the total erosion of the bluff must be approximated by the average annual long-term erosion of the bluff multiplied by the number of years that the structure will be in place. Finally, since the main concern is with the sand component of this material, the total material will be multiplied by the percentage of bluff material which is sand, giving the total amount of sand which would have been supplied to the littoral system if the proposed device were not installed.

> Volume of sand denied the beach by the protective device (Vb) is equal to the percentage of sand in the bluff material (S) times the total width of the protected property (W) times the area between the solid and dotted lines in Figure 4-4 directly landward of the device[R x hs], plus the area between the solid and dotted area above the device [1/2hu x (R + (Rcu - Rcs))]. Since the dimensions and retreat rates are usually given in feet and volume of sand is usually given in cubic yards, the total volume of sand must be divided by 27 to provide this volume in cubic yards, rather than cubic feet. This can be expressed by the following equation:
>
> Vb = (S x W x L) x [(R x hs) + (1/2hu x (R + (Rcu - Rcs)))]/27

In most cases, the quantified analysis of impacts to sand supply will stop with these calculations of lost beach area (the encroachment loss plus the long term loss of beach area with a fixed back beach) and the lost volume of beach sand. If there is an existing local or regional beach nourishment program in the area where the shoreline protective devices are being proposed, the areas of beach loss could be converted to the volume of sand needed to rebuild this same area of beach in the general area of the protective device. As mitigation for loss of beach area and beach sand, the analyst could prepare a condition which would require the applicant to contribute to the local or regional beach nourishment effort for a volume of sand equivalent to the volume of sand needed to rebuild the total amount of lost beach area plus the amount of material which would be kept from the littoral system.

To convert between area of beach and volume of sand to rebuild an area of beach, coastal engineers use a conversion value, v, which is in units of cubic yards per square foot of beach. The value is based on regional characteristics and is often assumed to be between 1 and 1.5, when there is not regional data to help quantify this value better. The value of v is based on the regional beach and nearshore profiles. To build a beach seaward one foot, there must be enough sand to provide a one foot wedge of sand through the entire region of onshore - offshore transport. If the range of reversible sediment movement is from -30 feet msl to +10 feet msl, then a one foot beach addition must be added for the full range from -30 to +10 feet, or 40 feet total. This 40 foot by 1 foot square parallelogram could be built with 1.5 cubic yards of sand (40 cubic feet divided by 27 cubic feet per cubic yard). If the range of reversible sediment transport is less than 40 feet, it will take less than 1.5 cubic yards of sand to rebuild one square foot of beach and if the range of reversible sediment transport is larger than 40 feet it will take more than 1.5 cubic yards of sand to rebuild one square foot of beach.

> The volume of sand to rebuild the area of beach lost due to encroachment (Ve) is equal to the encroachment area (Ae) times the area to volume conversion (v). This can be expressed by the following equation:
>
> Ve = Ae x v
>
> The volume of sand to rebuild the area of beach lost due to long-term erosion (Vw) is equal to the area of beach lost due to long-term erosion (Aw) times the area to volume conversion (v). This can be expressed by the following equation:
>
> Vw = Aw x v

Finally, if the condition will require that the applicant pay a fee for sand rather than provide the actual volume, the fee can be established as the total volume of sand (Ve + Vw + Vb) multiplied by the cost of transporting a

cubic yard of sand (C) to the shoreline in the project vicinity.

C. Methodology Based on Science

The premise behind the sand mitigation program is that structural solutions to shoreline erosion, such as seawalls, revetments, cliff retaining walls, etc., alter natural shoreline processes. The shoreline processes which are affected by such shoreline protective devices include the formation and retention of sandy beaches and bluff retreat which adds bluff material to the shoreline. Shoreline armoring impedes these natural processes by fixing the back of the beach and preventing the landward migration of the beach profile, and by preventing bluff erosion from contributing to the sand supply.

Simply stated, the methodology which has been developed as part of the mitigation program is designed to calculate the beach area displaced and the amount of bluff material which does not reach the beach, as a result of a seawall; and to calculate the amount of sand which would be required to replace that lost beach area in the project vicinity. This amount of material is converted to a fee by multiplying the amount of material times the cost of transporting that material to the beach. The methodology quantifies some of the impact caused by the proposed armoring in terms of area of beach and volume of sand. To derive these amounts, the methodology utilizes the information specific to the proposed protective device, such as the design life, and to the project site, such as height of bluff, width of property, etc., and the predicted rate of erosion that was used to determine the need for protection of the existing structure.

The predicted rate of erosion is based upon historic trends and past shoreline responses. The erosion rate is predicted using the same methodology that is used to predict an erosion rate for purposes of concluding that an existing structure is threatened by erosion. Thus, the methodology uses site specific information and a scientifically sound prediction of erosion rates to quantify the amount of sand that will be lost as a result of the shoreline protective device. The fee is the money needed to buy an amount of sand equal to the sand lost as a result of the protective device. Since the amount of sand lost is quantified, the fee is directly related in extent to the impact of the project. Because the mitigation fee is used for beach replenishment in the same littoral cell where the impact occurs, the fee is also related to the type of impact of the project.

D. Application of Mitigation Program in San Diego County

As stated previously, the in-lieu fee has been required by the Coastal Commission through conditions of approval of coastal development permits for seawalls in the City of Encinitas and Solana Beach as mitigation for the impacts of the approved seawalls. This report is examining the use of a fee to be deposited in a mitigation fund in-lieu of placing sand on the beach to mitigate for the impacts of seawalls on natural shoreline processes in San Diego County. The shoreline in San Diego County is eroding. The concerns associated with the County's eroding beaches have been addressed in the Shoreline Preservation Strategy adopted by the San Diego Association of Governments (SANDAG). The SANDAG Shoreline Erosion Committee has agreed to administer the fund and help identify beach replenishment projects which could be funded by the mitigation fees.

The Shoreline Erosion Committee of SANDAG is made up of representatives from each of the local coastal jurisdictions, the Port and the Navy with the representatives from the Coastal Commission, State Department of Boating and Waterways and the Department of Fish and Game serving as advisory members. One of the committee's functions is to identify sources of beach quality material for purposes of replenishing the County's eroding shoreline. Additionally, the committee is working on a Long Term Beach Replenishment Strategy. There are currently several sources of significant quantities of beach quality material identified, including the Navy Homeporting Project and the Sand for Trash project, which could augment the County's beaches and provide an ongoing source for beach replenishment in the future. Also, there are opportunistic sources of beach sand reported at every committee meeting, many of which require funding to get the material transported to and deposited on the beach. It is these kinds of beach replenishment efforts which will be funded by the Beach Sand Mitigation Fund established through approvals of shoreline armoring in San Diego County. The Memorandum of Understanding approved by the Executive Director of the Coastal Commission and by the SANDAG Board establishing a process for the administration of the Beach Sand Mitigation Fund is attached as Attachment 2.

The situation is critical in San Diego and may be as critical in other areas along California's coast. Because most of the County beaches are disappearing, there is no longer an adequate buffer between the waves and

shorefront or blufftop development. As the buffer disappears, homeowners are likely to seek permission to build seawalls. If a fee to provide for beach replenishment is not pursued on a regional basis, this situation will likely result in an increased amount of shoreline armoring with no remaining sandy beach. This is why there is currently an increased amount of attention being focused on the need for beach replenishment in San Diego County by SANDAG and other Federal, State and local entities.

Therefore, in review of future proposals for shoreline armoring, the Commission staff in the San Diego District office will consider the site and project specific circumstances of each proposal for shoreline altering devices, determine what the impacts are and whether they can be quantified using the developed methodology. The staff will then consider whether payment of a fee in-lieu of placing sand on the beach is an appropriate mitigation for the long-term impacts to sand supply. Even when an impact is identified through application of the methodology, there may be other reasons why an in-lieu fee is not the best means to mitigate impacts to sand supply and/or access opportunities and other mitigation measures should be pursued. Additionally, there may be some instances when payment of a fee alone is not adequate mitigation and it should be coupled with additional measures, such as project redesign and/or a lateral access offer to dedicate, to address all the adverse impacts resulting from the proposed armoring. The analysts must use their judgment and project analyses to determine whether or not to recommend payment of the mitigation fee as a condition of approval.

The following are examples of several projects which have been reviewed by the Commission since the in-lieu fee beach sand mitigation fund was established, and were approved without a condition requiring payment of a mitigation fee. In one case, the staff did not recommend mitigation in the form of a in-lieu fee on a public seawall project in Carlsbad because adverse impacts to public access and recreational opportunities were being offset by project design, including public access improvements. In another case involving a private residential structure, the fee was not required and a lateral access dedication was determined to be sufficient mitigation. In that particular case, there was private sandy beach located seaward of the structure and the project was infill development. In a third case, the project was replacement of a previously approved seawall in La Jolla, where the original Commission approval did not require a mitigation fee; however, the project was required to be located as far inland as possible and a lateral access dedication was required as mitigation. And in a fourth case, the Commission required redesign from a revetment to a vertical seawall and the applicant was required to construct a public stairway providing vertical access as a condition of approval of the City-issued coastal development permit. Thus, staff determined adequate mitigation was being provided to offset the impacts of the seawall on public access. Also, because the bluffs are mostly rocky headlands, they do not make a significant contribution of beach material in the project location.

In summary, the proposed methodology uses the site specific conditions and the proposed project design as factors to determine some of the impacts to sand supply resulting from any proposal for a shoreline protective device. The impacts are quantified in terms of area of beach and volume of sand lost as a result of the seawall. The component of the methodology which addresses the contribution to sand supply from coastal bluffs would obviously not be applicable to armoring on beaches not backed by such bluffs; however, the impacts to sand supply resulting from direct beach encroachment and fixing the inland extent of the beach can still be determined.

The decision to convert the quantified impacts to a dollar amount, and require payment of a fee in-lieu of placing sand on the beach to mitigate the identified impacts, will be based on a variety of other factors, including but not limited to, the degree of impact; the availability of design modifications to eliminate or lessen the impact; whether or not actual beach replenishment could serve as mitigation; the availability of other forms of mitigation; the ownership of the beach and bluffs; and age and type of shoreline protection on surrounding properties. In some cases, it may be difficult to support payment of a fee in an area that has been historically armored and/or the bluffs have not contributed to sand supply for years. However, because the impacts to the long-term beach width are ongoing, it may be appropriate to quantify the impacts from fixing the back of the beach for the remaining life of the proposed structure. The appropriateness of the in-lieu fee as mitigation should be assessed on a project by project basis using past Commission action, consultation with staff legal counsel and the Procedural Guidance Document on Review of Permit Applications for Shoreline Protective Devices as guidance.

IV. RECOMMENDATIONS FOR USE OF THE MITIGATION PROGRAM IN OTHER LOCATIONS

As discussed in the preceding sections, the methodology utilized in the San Diego County Beach Sand Mitigation

Program provides a means to quantify some of the impacts to sand supply caused by construction of shoreline protective devices. The methodology is also contained in the Procedural Guidance Document on Review of Permit Applications for Shoreline Protective Devices and can be used with any proposal involving a shoreline protective device as long as the information is available. Factors which will affect the degree of impact identified through the methodology include, but are not limited to, whether or not the project is proposed on an eroding shoreline; the availability of beach sand seaward of the protective device; the predicted erosion rate; and the percentage of sand in the bluff material. On beaches which are not backed by coastal bluffs, the impacts to sand supply resulting from direct beach encroachment and fixing the inland extent of the beach can still be determined. Impacts of shoreline protective devices located on wide, sandy beaches will be less; however, properties fronted by such beaches are also not likely to require a seawall to protect endangered development.

Recommendations

1. When a shoreline protective device is required to protect existing structures in danger from erosion, assure mitigation for impacts to public beaches and long-term public recreational opportunity is adequately addressed.

The results of the ReCAP study showed that the Commission has not historically addressed the cumulative impacts of shoreline armoring in its review of coastal development permit applications for seawalls and revetments. The typical mitigation measure applied to seawall projects has been a condition of approval requiring the applicant to offer to dedicate a lateral access easement to cover the privately-owned sandy beach seaward of the approved protective device. This practice does not insure mitigation of impacts to sand supply and could result in significant cumulative and adverse effects on shoreline sand supply if adequate mitigation is not required with future armoring. The quantification of impacts discussed in this report can be used to support a variety of mitigation measures which will reduce or eliminate the effects of the project on shoreline sand supply.

2. Utilize the Procedural Guidance Document on Review of Permit Applications for Shoreline Protective Devices to determine mitigation measures to address impacts on sand supply and public access.

The above referenced document contains an analytical process and sample conditions of approval which can be utilized by the permit analyst to develop the staff recommendation on projects involving shoreline protective devices. Examples of other forms of mitigation which can reduce or eliminate impacts to sand supply and access contained in that document include, but are not limited to, redesign from a revetment to a vertical seawall, relocation or realignment further inland, provision of lateral access in the design, offer to dedicate a lateral access easement seaward of the structure, deposition of beach material, and an in-lieu fee or user fee to compensate for encroachment on public beach. Support for alternative forms of mitigation can result from utilizing the methodology to quantify impacts and determine the significance of the impact and, thus, the appropriate mitigation.

3. Work with Local Governments and Public Beach Property Owners to Develop Mitigation Programs Designed to Protect Public Beaches and Recreational Opportunity

The primary constraint to using the in-lieu fee as mitigation in locations other than San Diego County is the absence in other areas of an established program and a public entity, such as SANDAG, which has agreed to collect the fees and spend the funds on beach replenishment projects. However, when a shoreline protective device encroaches directly on State tidelands or publicly-owned beach, the permit analyst could coordinate with the public property owner, such as the local government, State Lands Commission or State Department of Parks and Recreation. The public agency, as property owner, may be interested in establishing a fund to compensate for the use of the public property and mitigate the impacts of the protective device on public beach. This idea has not been widely used in the past, but may be an appropriate response today given that some public beach areas are disappearing. The fee in this case could be a user or rental fee and should be roughly-proportional to the value of beach area lost as a result of the approved shoreline protective device. The fee should be used for projects within the same local or State jurisdiction or littoral cell, on projects involving public access

improvements or for beach nourishment or maintenance. The methodology discussed in this report could be suggested as a means to quantify the amount of sand necessary to replace the beach area and bluff material lost as a result of the protective device and to derive an appropriate mitigation fee to offset the loss of public beach.

Another option would be for a local government to incorporate into their Local Coastal Program (LCP), measures to encourage beach replenishment and to mitigate the effects of armoring on sand supply. The LCP could contain a beach replenishment program which is financed, in part, by fees from property protection which encroaches on publicly-owned beach or otherwise adversely affects public beaches. The District staff should investigate the potential for working with local governments and State Parks to encourage those agencies to seek compensation for occupation of publicly-owned beach by seawalls. If the fees are then used for beach replenishment or access improvements, they are mitigation for impacts to public access and sand supply in accordance with Section 30235 and the public access and recreation policies of the Coastal Act.

V. REFERENCES

Everts, Craig, Memo by Dr. Everts dated 3/14/94 re: Review of Methodology for Quantifying Impacts to Sand Supply from Bluff Armoring

Kraus, Nicholas C. and Pilkey, Orrin H., "The Effects of Seawalls on the Beach", Journal of Coastal Research, Autumn, 1988

San Diego Association of Governments, Shoreline Preservation Strategy for the San Diego Region with Appendices, July, 1993

VI. ATTACHMENTS

IMPACT ANALYSIS FOR SHORELINE PROTECTIVE DEVICES

[Site Address]

Ve = Volume of sand to rebuild the area of beach lost due to encroachment by the seawall; based on the seawall design and beach and nearshore profiles (cubic yards)

Ve = Ae x v

Ae = The encroachment area which is equal to the width of the properties which are being protected (W) times the seaward encroachment of the protection (E)

Ae = W x E

W = Width of property to be armored (ft.)
E = Encroachment by seawall, measured from the toe of the bluff or back beach to the seaward limit of the protection (ft.)

v = Volume of material required, per unit width of beach, to replace or reestablish one foot of beach seaward of the seawall; based on the vertical distance from the top of the beach berm to the seaward limit of reversible sediment movement (cubic yards/ft of width and ft. of retreat). The value of v is often taken to be 1 cubic yard per square foot of beach. If a vertical distance of 40 feet is used for the range of reversible sediment movement, v would have a value of 1.5 cubic yards/square foot (40 feet x 1 foot x 1 foot / 27 cubic feet per cubic yard). If the vertical distance for reversible sand movement is less than 40 feet, the value of v would be less than 1.5 cubic yards per square

foot. The value of v will vary from one coastal region to another, but should not vary from lot to lot.[1]

Vw = Volume of sand to rebuild the area of beach lost due to long-term erosion (Vw) of the beach and near-shore, resulting from stabilization of the bluff face and prevention of landward migration of the beach profile; based on the long-term regional bluff retreat rate, and beach and nearshore profiles (cubic yards).

Vw = Aw x v

Aw = The area of beach lost due to long-term erosion is equal to the long-term average annual erosion rate (R) times the number of years that the back beach or bluff will be fixed (L) times the width of the property that will be protected (W) rate (ft./yr.).

Aw = R x L x W

R = The retreat rate which must be based on historic erosion, erosion trends, aerial photographs, land surveys, or other accepted techniques and documented by the applicant. The retreat rate should be the same as the predicted retreat rate used to estimate the need for shoreline armoring.

L = The length of time the back beach or bluff will be fixed or the design life of armoring without maintenance (yr.) For repair and maintenance projects, the design life should be an estimate of the additional length of time the proposed maintenance will allow the seawall to remain without further repair or replacement.

Vb = Volume of sand denied the beach by the protective device is equal to the percentage of sand in the bluff material (S) times the total width of the protected property (W) times the years the structure will be in place (L) times the area between the solid and dotted lines in Figure 4-4 directly landward of the device[R x hs], plus the area between the solid and dotted area above the device [1/2hu x (R + (Rcu - Rcs))]. Since the dimensions and retreat rates are usually given in units of feet and volume of sand is usually given in cubic yards, the total volume of sand must be divided by 27 to provide this volume in cubic yards, rather than cubic feet. This can be expressed by the following equation:

Vb = (S x W x L) x [(R x hs) + (1/2hu x (R + (Rcu - Rcs)))]/27

S = Fraction of beach quality material in the bluff material, based on analysis of bluff material to be provided by the applicant

hs = Height of the seawall from the base to the top (ft)

hu = Height of the unprotected upper bluff, from the top of the seawall to the crest of the bluff (ft)

Rcu = Predicted rate of retreat of the crest of the bluff, during the period that the seawall would be in place, assuming no seawall were installed (ft/yr). This value can be assumed to be the same as R unless the applicant provides site specific geotechnical information supporting a different value.

Rcs = Predicted rate of retreat of the crest of the bluff, during the period that the seawall would be in place, assuming the seawall has been installed (ft/yr). This value will be assumed to be zero unless the applicant provides site specific geotechnical information supporting a different value.

Vt = Total volume of sand required to replace losses due to the structure, through reduction in material from the bluff, reduction in nearshore area and loss of available beach area (cubic yards). Derived from calculations provided above.

Vt = Vb + Vw + Ve

M= Vt x C

C = Cost, per cubic yard of sand, of purchasing and transporting beach quality material to the project vicinity ($ per cubic yard). Derived from the average of three written estimates from sand supply companies within the project vicinity that would be capable of transporting beach quality material to the subject beach, and placing it on the beach or in the near shore area.

ATTACHMENT 2

Memorandum of Agreement Between the San Diego Association of Governments (SANDAG) and the California Coastal Commission (herein referred to as the Commission)
Establishing a Process for the Administration of the
Beach Sand Mitigation Fund

WHEREAS, the Beach Sand Mitigation Fund consists of fees collected by the California Coastal Commission through its coastal development permit process pursuant to special conditions of various permits, as mitigation for the adverse impacts of shoreline protective structures, such as seawalls and revetments, on the beaches within San Diego County;

WHEREAS, the mitigation fees are deposited in an interest bearing account created at SANDAG, with all interest earned payable to the account for purposes stated below;

WHEREAS, the purpose of the account is to establish a beach sand mitigation fund to aid local governments, working cooperatively through SANDAG, in the restoration of the beaches within San Diego County;

WHEREAS, the funds shall be solely used to implement projects which provide sand to the region's beaches, not to fund operation, research, maintenance or planning studies;

WHEREAS, the funds shall be allocated as provided for in this memorandum of agreement (MOA) between SANDAG and the Commission, setting forth terms and conditions to assure that the mitigation fees will be expended in the manner intended by the Commission; NOW, THEREFORE

BE IT RESOLVED that it is the intent of the Coastal Commission and SANDAG to participate in the administration of the Beach Sand Mitigation Fund as follows:

1. Fund Administration

The Commission and SANDAG agree, that the mitigation fees will be held by SANDAG in a trust fund maintained and operated by SANDAG as one fund; however, SANDAG agrees to establish a separate accounting for monies within the fund for each coastal jurisdiction in the San Diego region. Mitigation fees from approved shoreline protection projects within each coastal jurisdiction shall be accounted for by jurisdiction;

Money from a coastal jurisdiction's account cannot be spent without that jurisdiction's formal approval through resolution by City Council or Board of Supervisors;

The money in the fund will be invested by SANDAG in accordance with applicable law. Income and/or interest will be credited to each coastal jurisdiction's account on a pro-rated basis. A copy of the annual accounting review shall be submitted, upon completion, to the Executive Director of the Commission.

2. Fund Allocation

The Commission and SANDAG agree, that the region's coastal jurisdictions, working together through the Shoreline Erosion Committee, will evaluate proposed beach replenishment projects, and determine how much, if any, money from the fund should be allocated to a project, and how much of the total allocation should come from each jurisdiction's account. No funds shall be allocated from a jurisdiction's account without that jurisdiction's formal approval through resolution by City Council or Board of Supervisors;

The Commission and SANDAG agree that, prior to allocation of any funds, the recommendation of the Shoreline Erosion Committee, after adoption by SANDAG, must be submitted to the Executive Director of the Commission for review and approval. The Executive Director must provide written concurrence with each allocation, before any allocation occurs;

The Commission and SANDAG agree that each disbursement will be made to the recipient with conditions that guarantee that the fees are used as intended by the Shoreline Erosion Committee, SANDAG and the Executive Director. Any unused funds shall be returned to the contributing coastal jurisdictions' account(s) on a pro-rated basis.

3. Eligible Projects

Only projects which meet all of the following will be considered by the Shoreline Erosion Committee and SANDAG for funding:

a. Only projects that are recommended to the Shoreline Erosion Committee after formal action by a local coastal jurisdiction will be considered for funding. Projects may be carried out by the local jurisdictions themselves; by other agencies, including, but not limited to, the Corps of Engineers, the U.S. Navy, the California Coastal Conservancy or the State Department of Boating and Waterways; or by private parties and/or non-profit organizations;

b. Only projects that involve sand replenishment for beaches in San Diego County will be considered for funding. Since the fees that will go into the fund are intended to mitigate adverse impacts of shoreline protective structures on beach sand supply, only projects that add sand to the region's beaches shall be supported by the fund; and

c. Only capital projects will be considered for funding. Mitigation fees cannot be used for operations, research, maintenance or planning studies. The Committee may recommend that funds should be allocated to engineering or permitting (e.g. environmental documentation) costs directly related to the implementation of a capital project, under extraordinary circumstances only.

Sand projects like those listed in the "Update on Opportunistic Sand Projects" which appear on the Shoreline Erosion Committee's agenda each meeting may be considered for funding. These projects typically have sand available but require additional funds to move the sand to the beach;

Any project considered for funding must obtain a coastal development permit, waiver or exemption from the local government having jurisdiction, or the Commission, prior to initiation of construction.

4. Project Funding Criteria

The Commission and SANDAG agree the objectives, policies and recommendations contained in the Shoreline Preservation Strategy dated July 1993, and the guiding principles adopted in 1995 by the Shoreline Erosion Committee, should be used by the coastal jurisdictions in deciding how to allocate the fund to projects. SANDAG staff will provide an evaluation of how a particular project meets these criteria. The Shoreline Erosion Committee shall use this evaluation as a basis for their discussions and decisions on funding allocation.

The Commission and SANDAG agree that funds generated within a coastal jurisdiction from a specific littoral cell shall be used only for projects affecting that same littoral cell.

BE IT FURTHER RESOLVED that it is the intent of this Memorandum of Agreement to assure consistency in the administration and allocation of mitigation fees from the Beach Sand Mitigation Fund.

BE IT FURTHER RESOLVED that this Memorandum of Agreement may be altered, changed or amended by mutual consent of the parties hereto. Either party may terminate this MOA by providing written notification 30 days prior to termination.

BE IT FURTHER RESOLVED that in the event of termination of this Memorandum of Agreement by either party, any and all remaining funds shall be transferred by SANDAG to the Commission or a Commission-approved alternate entity.

SAN DIEGO ASSOCIATION OF GOVERNMENT

_____

Executive Director

_____

Date

CALIFORNIA COASTAL COMMISSION

_____

Executive Director

_____

Date

ATTACHMENT 3

Beach Sand Mitigation Fund

Applicant's Name	Address	Mitigation Fee Total	Amount Paid	Amount Due	Permit Number	Date Next Payment
		$	$	$		
Evleth	312 Neptune, Encinitas	$2,918	$2,918	$-	6-93-85	
Pierce	370 Neptune, Encinitas	2,876	2,876	-	6-93-85	
Rose	378 Neptune, Encinitas	3,004	360	2,644	6-93-85	9/1/1996
Auerbach	396 Neptune, Encinitas	2,982	2,982	-	6-93-85	
Frickman	402 Neptune, Encinitas	3,004	3,004	-	6-93-85	

Mills (Farmer)	470 Neptune, Encinitas	5,406	5,406	-	6-93-131	
Knotts	478 Neptune, Encinitas	3,862	3,862	-	6-93-131	
Harlow	492 Neptune, Encinitas	6,178	6,178	-	6-93-131	
Oakley	498 Neptune, Encinitas	3,089	3,089	-	6-93-131	
Klinck	502 Neptune, Encinitas	3,089	3,089	-	6-93-131	
Sbordone	510 Neptune, Encinitas	3,089	3,089	-	6-93-131	
Sbordone	518 Neptune, Encinitas	4,634	4,634	-	6-93-131	
Richards(Barshick)	522 Neptune, Encinitas	7,990	7,990	-	6-93-131	
Favero	452 Neptune, Encinitas	7,776	7,776	-	6-93-136	
Hann	386 Neptune, Encinitas	3,069	3,069	-	6-95-66	
Coleman	680 Neptune, Encinitas	4,051	4,051	-	6-90-100	
Clayton	638 Neptune, Encinitas	4,881	4,881	-	6-93-36-G	
Wood	521 Pacific, Solana Bch	5,770	5,770	-	6-92-212	
	TOTAL	$77,666	$75,023	$2,644		
City of Encinitas *	N. El Portal (Low Est.)	$2,000	$-	$2,000	6-94-88	Jan-95
City of Encinitas *	N. El Portal (High Est.)	$10,979	$-	$10,979	6-94-88	Jan-95

*The City of Encinitas has not yet submitted figures to calculate the exact mitigation fee due. Thus, they have not been included.

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