W22a

CALIFORNIA COASTAL COMMISSION SOUTH CENTRAL COAST AREA 89 SOUTH CALIFORNIA ST., SUITE 200 VENTURA, CA 93001 (805) 585-1800



ADDENDUM

DATE:	May 12, 2015
то:	Commissioners and Interested Parties
FROM:	South Central Coast District Staff
SUBJECT:	Agenda Item 22a, Wednesday, May 13, 2015 Coastal Development Permit 4-14-0687 (Santa Barbara County)

The purpose of this addendum is to make corrections/revisions to the staff report, include and respond to correspondence received to date, and attach documentation regarding Ex Parte Communications from Commissioners.

A. <u>Revisions/Corrections to the Staff Report</u>

The following revisions to the findings and special conditions of the report are made as follows (language to be inserted is shown <u>underlined</u> and language to be deleted is shown in line out):

1. Subsection A of Special Condition 1 (Development Authorization Period) on page 7:

A. This coastal development permit authorizes the approved development for a period of twenty (20) years from the date of Commission action on this permit, or until the reevaluation triggers of Special Condition 2(E-F) are reached and the deadline for submittal of a new application has passed, whichever occurs first. After such time, the authorization for retention of the approved rock revetment provided by this permit shall cease and continued retention will require a new coastal development permit shall be required for retention of the approved rock revetment or an alternative shoreline protection plan. The new coastal development permit application shall be submitted no later than six months prior to the end of the permit term or within six months of notice that one of the re-evaluation triggers has occurred, and shall include at a minimum the results of the required beach and revetment monitoring reports in order to evaluate the effectiveness and impacts of the project and to address changed circumstances and/or unanticipated impacts. Provided the new permit application is received before the permit expiration and not withdrawn, the expiration date shall be automatically extended until the time the Commission acts on the new application. Failure to obtain a new coastal development permit for an additional term to retain the rock revetment shall constitute a violation of the terms and conditions of this coastal development permit, unless the Executive Director grants additional time for good cause.

2. Subsections D and E of Special Condition 2 (Beach and Revetment Monitoring and Adaptive Management Plan) on pages 8-10:

- D. *Maintenance Actions*: The plan shall reflect that future maintenance and repair of the approved rock revetment may be completed for the term of this permit consistent with the following limitations:
- 1. If monthly revetment monitoring identifies that 200 120 linear feet or more of the approved revetment rock is exposed for 6 consecutive months, sand cover shall be placed on the exposed area and <u>where</u> appropriately, planted with native coastal strand/southern foredune vegetation to help stabilize the placed sand. Any rock or other debris from the revetment that becomes dislodged through weathering, wave action, or settlement shall be removed from the beach or deposited on the revetment on an as-needed basis.
- 2. The rock revetment and/or sand cover may be maintained in its approved size, location, and configuration. The importation of a minor amount of new rock and/or beach-compatible sand may be allowed, if necessary, to maintain the approved size, height, footprint of the revetment and/or sand cover. The amount of beach-compatible sand that is imported for maintenance shall not exceed that necessary to cover more than 10% of the length of the approved revetment (up to approximately 1,000 cu. yds.). In no event shall more than 10% of the approved volume of the rock revetment be imported for any individual revetment repair project. (tThe addition of more than this these maximums for any individual repair maintenance project shall require a new coastal development permit and is not exempt pursuant to this condition). No future repair or maintenance, enhancement, reinforcement, or any other activity affecting the rock revetment shall be undertaken if such activity extends the seaward footprint of the revetment or expands the size, height, or footprint of the approved revetment.
- 3. Minor sand backpassing activities may be conducted to place beach-compatible sand on the exposed portions of the revetment on an as-needed basis, <u>consistent with the</u> <u>sand coverage limitations of D.2 above</u>. Where feasible, any planned minor sand backpassing activities to maintain sand coverage on the revetment shall be coordinated to coincide with routine beach grooming activities in order to minimize the use of mechanical equipment on the beach. Appropriately-sized donor beach nourishment material generated as a result of an opportunistic beach nourishment project or program that is approved by the Commission pursuant to a separate coastal development permit may also be utilized to bury exposed portions of the approved rock revetment on an as-needed basis.
- 4. Prior to any placement of imported sand at the subject site for maintenance purposes, the applicant shall conduct the following physical and chemical sediment testing for the review and approval of the Executive Director to ensure that the imported sand is safe and compatible with the subject site:

Grain Size -- Physical analysis shall be conducted on representative samples of the source material proposed for placement at the site and on representative samples from the receiver beach. The material shall be analyzed for consistency with the U.S. Army Corps of Engineers (ACOE) / Environmental Protection Agency (EPA), State Water Resources Control Board and California Regional Water Quality Control Board (RWQCB) criteria for beach replenishment. Deposition of source material shall occur consistent with the following:

- <u>The average grain size for source material shall be in substantial</u> <u>conformance with the average grain size for the receiver beach, i.e. +/- 10%</u> <u>of average grain size of the receiver beach.</u>
- <u>Source material that does not meet the applicable physical, chemical, color,</u> <u>particle shape, debris, and/or compactability standards for beach</u> <u>replenishment shall not be used.</u>

Contaminants -- Based on U.S. EPA Tier I analyses results, Tier II bulk chemical analysis shall be conducted on representative composite samples of the source material proposed for placement at the site. The material shall be analyzed for consistency with EPA, ACOE, State Water Resources Control Board and RWQCB requirements for beach replenishment. At a minimum, the chemical analysis shall be conducted consistent with the joint EPA/Corps *Inland Testing Manual*. If the ACOE / EPA, State Water Resources Board or RWQCB determine that the sediment exceeds Effects Range Medium (ER-M) contaminant threshold levels as specified by the U.S. EPA, the materials shall not be placed at the site.

<u>Color -- Color classification shall be conducted on representative samples of any</u> <u>upland source material proposed for placement at the site. The color shall reasonably</u> <u>match the color of the receiving beach after reworking by wave action. Color is only</u> <u>an issue for upland sediment, but is not as significant for marine-derived sediment</u> <u>sources.</u>

Particle Shape -- Particle shape classification shall be conducted on representative samples of the source material proposed for placement on the site. The source material shall consist of a minimum of 90% rounded particles (i.e., maximum of 10% angular particles).

Debris Content -- A visual inspection of the source location shall be conducted to determine the presence and types of debris such as trash, wood, or vegetation. The amount of debris within the material shall be estimated, as a percentage of the total amount of source material. Prior to placement of imported sand at the site, all such debris material shall be separated from the sand material (by mechanical screening, manual removal or other means) and taken to a proper disposal site authorized to receive such material.

<u>Compactability -- Chemical and visual inspections of the source location shall be</u> <u>conducted to determine the presence of elements such as iron oxides which can</u> <u>compact to form a hardpan surface. Source material with compactable material shall</u> <u>be considered for placement below the mean high tide only.</u>

- 45. Maintenance actions shall be implemented in compliance with construction Best Management Practices and completed in a timely manner. No machinery or mechanized equipment shall be allowed at any time within the active surf zone, except for that necessary to remove any errant rocks from the beach seaward of the revetment. All maintenance materials and equipment shall be removed in their entirety from the beach area by sunset each day that work occurs. Any and all debris resulting from maintenance activities shall be appropriately removed from the project site within 24 hours. Equipment shall not be cleaned on the beach or in the adjacent beach parking areas. Any unsafe debris or other materials that may become exposed on the revetment or the beach in the area of the revetment shall be removed and exported to an appropriate offsite disposal area in order to protect public health and safety and coastal resources.
- 56. Maintenance actions shall avoid adverse impacts to protected sensitive species. Disturbance to beach wrack and coastal strand/southern foredune habitat shall be minimized to the maximum extent feasible. If maintenance actions are required during the nesting or breeding seasons of any potential sensitive species in the project area (including but not limited to western snowy plover) or during the seasonally predicted run period and egg incubation period, as identified by the California Department of Fish and Game Wildlife, the applicant shall retain the services of a qualified biologist or environmental resources specialist with appropriate qualifications acceptable to the Executive Director, to conduct sensitive species surveys prior to any maintenance activities. The environmental resource specialist shall conduct a survey of the project site to determine presence and behavior of sensitive species one day prior to commencement of any maintenance activities authorized on the project site pursuant to this permit, and immediately report the results of the survey to the applicant and the Commission. In the event that the environmental resources specialist reports finding any sensitive species within 500 ft. of the required maintenance activities, the applicant shall postpone commencement of work. If the environmental resources specialist determines that any grunion spawning activity is occurring and/or that grunion are present in or adjacent to the project site, then no maintenance activities shall occur on, or adjacent to, the area of the beach where grunion have been observed to spawn until the next predicted run in which no grunion are observed. Required maintenance activities may resume only if adverse effects to the protected sensitive species can be avoided.
- 67. The applicant shall submit a Project Notification Report prior to the commencement of any maintenance actions, for the review and approval of the Executive Director, except under emergency conditions where immediate work is required to address public health and safety. The Project Notification Report shall describe all supplemental actions, timing of work, staging areas, equipment to be used and method of construction and shall include all relevant monitoring reports required pursuant to this permit for the project site to ensure that the operations are in substantial conformance with the resource protection and public access conditions of this permit. All

supplemental actions and work shall be in accordance with all conditions of this coastal development permit. No change to the program beyond the supplemental actions outlined by the approved plan shall occur without a Commission-approved amendment to the permit, unless the Executive Director determines that no such amendment is required.

E. Annual and Mid-term Reporting Requirements: The applicant shall prepare and submit an Annual Monitoring Report, for the review and approval of the Executive Director, for the term of this permit. The monitoring report shall include all data required by this condition, all monthly monitoring forms, and a written report prepared by a qualified coastal engineer indicating the results of the monitoring program. The monitoring report shall include analysis and conclusions regarding the condition and effectiveness of the revetment, any changes in beach/shoreline profiles, any changes in the public's ability to safely access the beach, and details on any maintenance or adaptive management actions undertaken pursuant to the approved adaptive management plan during the year. The report shall include a brief history of all previous years' monitoring results to track changes in conditions. Should the monitoring reports reveal any unanticipated significant adverse resource or public access impacts not addressed in the Commission's authorization and/or the approved Beach and Revetment Monitoring and Adaptive Management Plan, the Executive Director may require the submittal of a permit amendment for the review and approval by the Commission to address and evaluate mitigation measures to compensate for any adverse resource impacts, public access impacts, and/or require any mid-course corrections or adjustments to the plan shall require the submittal of a new coastal development permit for the review and approval by the Commission to re-evaluate the project, the permit term, feasible alternatives, and measures to address any identified adverse resource or public access impacts.

Ten (10) years from the date of Commission action on this permit, the applicant shall submit a Mid-term Assessment Report to the Executive Director, that documents the results of the required Beach and Revetment Monitoring and Adaptive Management Plan and includes analysis and conclusions regarding the condition and effectiveness of the revetment, any changes in beach/shoreline profiles, any changes in the public's ability to safely access the beach, and details on any maintenance or adaptive management actions undertaken pursuant to the approved adaptive management plan during the year. Should this mid-term assessment report reveal any significant adverse resource or public access impacts not addressed in the Commission's authorization and/or the approved Beach and Revetment Monitoring and Adaptive Management Plan, the Executive Director may shall require the submittal of a permit amendment or new coastal development permit for the review and approval by the Commission to reevaluate the project, the permit term, feasible alternatives, and measures to address any identified adverse resource or public access impacts.

3. The first two paragraphs on page 21:

Section 30253 of the Coastal Act mandates that new development minimize risks to life and property in areas of high geologic and flood hazard. In addition, Coastal Act Sections 30253 and 30235, together, specifically provides that shoreline protective devices that create or contribute to erosion must be permitted only when both of the following two criteria are met: (1) the device is required to serve coastal-dependent uses or to protect existing structures or public beaches provided that these areas/structures are in danger from erosion and (2) the device is designed to eliminate or mitigate adverse impacts on local shoreline sand supply.

Shoreline Protective Device Effects

Coastal Act Section 30235 acknowledges that seawalls, revetments, cliff retaining walls, groins and other such structural or "hard" methods designed to forestall erosion generally also alter natural landforms and natural shoreline processes. Accordingly, <u>if such structures conflict with Section 30253 (or other Coastal Act policies)</u>, Section 30235 limits the construction <u>only requires approval</u> of shoreline protective works to those that are required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion. The Coastal Act provides these limitations this limited mandate because shoreline structures can have a variety of adverse impacts on coastal resources, including adverse effects on sand supply, public access, coastal views, natural landforms, and overall shoreline beach dynamics on and off site, ultimately resulting in the loss of beach.

4. Last paragraph on page 23:

Need for Shoreline Protection at Goleta Beach and Alternatives Analysis

Coastal Act Section 30235 provides that <u>only requires approval of</u> shoreline protection devices shall be permitted only when all of the following four criteria are met: (1) there is an existing structure, public beach area, or coastal dependent use; (2) the existing structure, or public beach area, or coastal dependent use is in danger from erosion <u>or the coastal</u> <u>dependent use is threatened</u>; (3) shoreline-altering construction is required to protect the existing threatened structure or public beach area, or to serve the coastal dependent use; and (4) the required protection is designed to eliminate or mitigate its adverse impacts on shoreline sand supply. The first three questions relate to whether the proposed shoreline protection device is necessary, while the fourth question applies to avoiding or mitigating any unavoidable impacts from it. In addition, even where all four criteria are satisfied, and thus, shoreline protection devices must be permitted, the other policies in Chapter 3 of the Coastal Act do not become irrelevant, so the devices must be located, designed, and maintained in a manner that is consistent with those other policies to the extent possible. Those issues are discussed in subsequent sections of this report.

5. The following shall be added prior to the first full paragraph on page 41:

To ensure that imported sand material that may be used for sand cover maintenance pursuant to Special Condition 2 is physically and chemically compatible with the subject site and suitable for beach nourishment, the Commission finds it necessary (**Special Condition 2**) to require the applicant to test the physical and chemical characteristics of representative samples of the donor and received sand material consistent with U.S. Army Corps of Engineers (Army Corps), Environmental Protection Agency (EPA), and State Water Resources Control Board and California Regional Water Quality Control Board (RWQCB) criteria for beach replenishment prior to the deposition of any imported sand material for maintenance of the buried revetment.

6. The following shall be revised in the summary table on page 32:

Maintenance Actions

- The rock revetment and/or sand cover may be maintained in its approved size, location, and configuration.
- If monthly revetment monitoring identifies that 200 120 linear feet or more of the approved revetment rock is exposed for 6 consecutive months, sand cover shall be placed on the exposed area (minor backpassing or opportunistic nourishment if approved in a separate CDP) and where appropriately planted with native coastal strand vegetation to help stabilize the placed sand.
- If any rock or other debris from the revetment that has become dislodged through weathering, wave action, or settlement shall be removed from the beach or deposited on the revetment on an as-needed basis.
- A Project Notification Report shall be submitted prior to the commencement of any maintenance actions, for the review and approval of the Executive Director.

7. The following sentence on pages 33, 37, 42, and 45 shall be revised as follows:

If monthly revetment monitoring identifies that 200 120 linear feet or more of the approved revetment rock is exposed for 6 consecutive months, beach-compatible sand cover shall be placed on the exposed area through minor backpassing activities, or opportunistic beach nourishment (if approved in a separate CDP).

B. Correspondence Received

1. Santa Barbara County. Correspondence from the County's Interim Community Services Director, Renee Bahl, on behalf of the applicant is attached as Exhibit 1 of this addendum. Ms. Bahl's letter, dated May 7, 2015, expresses general support for the staff recommendation, but requests that the Commission consider changing Special Condition 2 (Beach and Revetment Monitoring and Adaptive Management Plan) to allow a reduction in the required beach profile survey monitoring (to one survey per year, in the spring, and only in years when the revetment is exposed) in order to reduce costs. However, Commission staff believes that beach profile surveys at a minimum of 3 transects on a semi-annual basis, each spring and fall season, represents the minimum profile monitoring frequency necessary

to effectively monitor and analyze changes to the beach/shoreline profile over time in order to help guide adaptive actions that may be necessary in the future.

2. Environmental Defense Center (EDC). Correspondence from the EDC on behalf of the Santa Barbara Chapter of Surfrider Foundation, dated May 8, 2015, is attached as Exhibit 2a of this addendum. The EDC also provided 308 postcards and a petition signed by interested parties (attached as Exhibit 2b of this addendum) who support a managed retreat alternative at Goleta Beach. Correspondence entitled "Fact and Fiction at Goleta Beach Park" from the Santa Barbara Chapter of Surfrider Foundation, dated May 8, 2015, is also attached as Exhibit 2c of this addendum. The correspondence contains a number of photographs at Goleta Beach, with particular emphasis on the west end of the revetment.

The letter asserts that the western portion of the existing rock revetment is frequently exposed and subject to wave action and is causing adverse impacts to the beach, biological resources, scenic views, and public access, recreation and safety. The letter also provides photographs from times in April/May 2015, March 2014, August/September 2010, September 2008, September 2006, March 2004, and September 2002 that indicate exposure of the western portion of the revetment. The letter also attaches a <u>memorandum by coastal scientist Dr. David Revell</u>, dated May 8, 2015, asserting that available photographs of the site indicate that the western portion of the revetment has been exposed for 13 of the last 17 years. As such, EDC recommends that the exposed western portion of the revetment (approximately 150 ft.) should be removed and the parking lot (Lot 7) and utilities behind it should be relocated.

In response, Commission staff would note that the majority of the 1,200 ft. long rock revetment has remained buried since its installation, except during periodic large storm or wave events. Based upon available photographs from certain times within the last 20 years (from GoogleEarth, California Coastal Records Project, and photos provided by the County and EDC), the EDC is correct in that the far upcoast/western approximately 100-150 ft. of the revetment appears to be exposed more frequently than the rest of the revetment. This upcoast portion of the beach is situated in the shadow of a rocky point that is subject to greater erosional forces. It is also important to note that available aerial photos also reveal that this far upcoast end of the revetment was significantly buried for a few years just prior to the recent significant storm event of March 2014. Regardless, given the longer-term seasonal oscillation of this beach, Commission staff continue to recommend the monitoring and adaptive management program outlined in the staff report, and as amended in this addendum, in order to determine the seasonal variations of the beach profile, to obtain better data on the rate and frequency of any revetment exposure, and to guide adaptive actions to avoid significant adverse impacts on the beach and public access. In addition, given the more frequent pattern of exposure at the upcoast end of the revetment, the County will need to focus their maintenance actions and any sand replenishment efforts on that portion of the revetment.

The letter states that the staff report fails to disclose and analyze impacts to public access and recreation resulting from exposure of the revetment and the loss of beach sand at the

upcoast end. The letter asserts that the exposed portion of the revetment is eliminating the sandy beach in order to protect upland facilities that can feasibly be relocated.

In response, Commission staff would note that Section IV.E of the staff report acknowledges that periodic exposure of the revetment can impede pedestrian access to the beach from the upland areas of the park. In order to avoid and minimize the frequency that the rock revetment is subject to direct wave action during periods of erosion at the site, and thereby minimize adverse impacts to public access, it is important that the County maintain the buried condition of the revetment to the extent feasible during the term of the permit. Given the longer-term seasonal oscillation of this beach, Commission staff continue to recommend the monitoring and adaptive management program outlined in the staff report, and as amended in this addendum, which include maintenance provisions and triggers for maintenance actions in order to avoid significant adverse impacts on the beach and public access. In addition, given the more frequent pattern of exposure at the upcoast end of the revetment, the County will need to focus their maintenance actions on that portion of the revetment.

The letter asserts that the staff report fails to disclose and analyze impacts to habitat from the construction, operation, and retention of the rock revetment. The letter references a letter from biologist Dr. Jenifer Dugan that was received by Commission staff (*Exhibit 2d*) and information from Dr. Karen Martin that indicate that the exposed portion of the revetment has eliminated habitat and restricted connectivity between the beach and coastal strand habitat and has reduced the area available for grunion to spawn because there is no beach in that location at high tide. The letter also asserts that coastal strand/southern foredune habitat, even if degraded, constitutes ESHA under the Coastal Act and the rock revetment and required maintenance of it will not serve to protect the habitat from significant disruption of habitat value.

In response, Commission staff would note that Section IV.F of the staff report addresses potential impacts to marine and habitat resources as a result of the project. Due to the ongoing and frequent high levels of disturbance associated with recreational use and County nourishment, grooming, and other management activities of this area, natural periods of sand erosion, as well as the revetment causing the back beach to be fixed in place, there is a lack of intact coastal strand/southern foredune vegetation on the project site. Given the historical and current level of disturbance due to public park use and County nourishment, grooming, and other management activities of the area, that results in loss and fragmentation of coastal strand and southern foredune vegetation, the project site does not rise to the level of an Environmentally Sensitive Habitat Area (ESHA), but does constitute an area of special biological significance within the marine and beach environment that should be maintained and protected. With substantial sand accretion and burial of the rock revetment, some coastal strand and southern foredune vegetation has re-established, which will not be disturbed with proposed retention of the as-built revetment. Further, the monitoring and adaptive management program recommended by staff requires that native coastal strand/southern foredune vegetation be planted where appropriate after any sand placement maintenance actions to help stabilize the new sand and maximize its retention in front of and on the revetment. Thus, as conditioned, the project would serve to minimize the potential for adverse effects to the coastal strand and southern foredune vegetation located on, or downcoast of, the project site.

The letters assert that there is unsafe debris and materials in the western end of the rock revetment that is exposed and pose a public safety hazard.

In response, Commission staff would note that Special Condition 2 recommended by staff requires the County to inspect the revetment on a monthly basis and remove and dispose of any debris or unsafe materials from the revetment in a timely manner upon identification.

The letter asserts that staff's analysis underestimates future impacts of the rock revetment by relying upon a future kelp restoration project to reduce future erosion at Goleta Beach.

In response, Commission staff would note that this assertion is not true and the analysis contained in the staff report (page 30) only notes that an experimental kelp restoration project has been approved by the Commission offshore of Goleta Beach and this project (and potential similar future projects) may affect future shoreline conditions at Goleta Beach if the establishment of the kelp bed is successful by reducing wave energy that reaches the shoreline and; thus, associated shoreline erosion.

The letter asserts that the upland park facilities that the proposed revetment is protecting from erosion (such as the parking lots, lawn area, picnic facilities, and utilities) do not meet the Coastal Act definition of a coastal-dependent use because these facilities do not require to be sited on or adjacent to the sea in order to function at all.

In response, Commission staff would note that the individual facilities in the upland portions of the park function as an integrated public park use that provides coastal access and recreation. As such, this public coastal park is a coastal dependent use.

3. Santa Barbara Audubon Society Inc. Correspondence from the Santa Barbara Audubon Society Inc. is attached as Exhibit 3 of this addendum and expresses opposition to the proposed retention of the rock revetment. The letter states that the revetment has adversely impacted foraging habitat for the Belding's Savannah Sparrow and the Western Snowy Plover, particularly at the west end, and recommends that at-risk park facilities should be relocated in order to allow restoration of the beach environment. In response, Commission staff would note that exposure of the revetment can reduce and isolate areas of coastal strand and southern foredune vegetation and foraging habitat for several species of coastal flora and fauna in the project area. Therefore, the special conditions recommended by staff only allow the revetment to be retained for a limited term that is conditioned upon maintaining a buried revetment condition as part of an adaptive management plan that is described more fully in the staff report and designed to avoid significant adverse impacts to coastal resources. Further, the special conditions recommended by staff require that the sand coverage maintenance actions allowed by the adaptive management plan shall avoid adverse

impacts to protected sensitive species and minimize disturbance to beach wrack and coastal strand and southern foredune vegetation to the maximum extent feasible.

4. Other Correspondence. Correspondence has been received from County of Santa Barbara First District Supervisor Salud Carbajal, UCSB Vice Chancellor Marc Fisher, City of Goleta Mayor Paula Perotte, Goleta Water District General Manager John McInnes, Southern California Gas Company, Santa Barbara City Councilmembers Cathy Murillo and Gregg Hart, the Santa Barbara Parks Commission, and the Santa Barbara Trails Council expressing support for the proposed project and staff recommendation. These letters are attached as <u>Exhibit 4</u> of this addendum.

Correspondence has also been received from a large number of interested parties, including letters of both support and opposition to the proposed project and/or staff recommendation. Given the large volume of letters received (approximately 74 letters in support of the proposed project/staff recommendation and approximately 68 letters in opposition to the proposed project/staff recommendation), only a representative sample of each are attached as Exhibit 5 (letters of support) and Exhibit 6 (letters of opposition) of this addendum. However, all letters received are included as part of the administrative record and are available for review in the Commission's Ventura Office.

C. <u>Ex Parte Communications</u>

Ex Parte communications (from Commissioners Zimmer, Cox, and Howell) received as of the date of this addendum are included as <u>Exhibit 7</u>.



Renée E. Bahl, Interim Director, Community Services Paddy Langlands, Deputy Director, Parks Division Dinah Lockhart, Deputy Director, Housing & Community Development Ryder Bailey, Chief Financial Officer, Community Services Ginny Brush, Executive Director, Arts Commission Angela Hacker, Manager, emPower Central Coast



May 7, 2015

California Coastal Commission 45 Fremont Street Suite 2000 San Francisco, CA 94105

RE: Santa Barbara County Goleta Beach Project (4-14-0687)

Dear Chair Kinsey and Commissioners,

Thank you for the Coastal Commission Staff recommendation to retain the revetment at Goleta Beach County Park and to monitor it throughout the next two decades. As the acting director of CSD, I agree with the staff recommendation and echo your staff's finding that the park provides significant low cost public access. I would ask that the Commission consider modifications to the monitoring requirement that allows the County to continue to focus its resources on enhancing the park for its many visitors rather than on monitoring when it isn't needed.

While County Staff certainly agrees that monitoring is important to be able to adaptively manage the park over the next 20 years, we would like the Coastal Commission to consider some refinements to the Special Conditions to help keep the costs more reasonable in times when the revetment is not exposed. Your staff report notes that it is anticipated that the revetment will continue to remain buried at most times. To that end, we respectfully request the following changes to the proposed Special Conditions that we hope your Commission will find reasonable:

- conduct beach profile survey only in Spring when the sand level is at its lowest point (2-B)

- conduct beach profile survey, after the first Spring, only in years when the revetment is exposed (2-B)

- if revetment is exposed, cover with sand and then plant native vegetation where appropriate (2-D.1)

- begin work immediately if there is a health and safety concern (2-D.6)

These small changes will still allow for regular assessment and monitoring of the revetment/beach condition to determine maintenance and adaptive management actions to maintain the desired conditions. We agree that the baseline survey, monthly revetment monitoring and annual reports are necessary and useful to analyze long-term trends.

Attached please find the County's Staff's slight recommend changes in strikeout/underline. Again, we appreciate the staff recommendation on our project and thank you for consideration of the requested changes.

Sincerely,

uet. Bahl

Renée E. Bahl Interim Community Services Director

Cc: Charles Lester, Executive Director, California Coastal Commission

Exhibit 1 Addendum CDP Application 4-14-0687

County Parks Division, emPower Central Coast, Housing & Community Development Division: 123 East Anapamu Street, 2rd Floor, Santa Barbara, CA 93101 • T: (805) 568-2461 • F: (805) 568-2459 Arts Commission: 1100 Anacapa Street, 3rd Floor, Rotunda Tower, Santa Barbara, CA 93101 sbccsd.org

I. SPECIAL CONDITIONS

1. Development Authorization Period

- A. This coastal development permit authorizes the approved development for a period of twenty (20) years from the date of Commission action on this permit, or until the re-evaluation triggers of Special Condition 2(E-F) are reached, whichever occurs first. After such time, the authorization for retention of the approved rock revetment shall cease and a new coastal development permit shall be required for retention of the approved rock revetment or an alternative shoreline protection plan. The new coastal development permit application shall be submitted no later than six months prior to the end of the permit term, and shall include at a minimum the results of the required beach and revetment monitoring reports in order to evaluate the effectiveness and impacts of the project and to address changed circumstances and/or unanticipated impacts. Provided the new permit application is received before the permit expiration, the expiration date shall be automatically extended until the time the Commission acts on the new application. Failure to obtain a new coastal development permit for an additional term to retain the rock revetment shall constitute a violation of the terms and conditions of this coastal development permit, unless the Executive Director grants additional time for good cause.
- B. Ten (10) years from the date of Commission action on this permit, the applicant shall submit a mid-term assessment report to the Executive Director, pursuant to the requirements in Special Condition 2(E) below.

2. Beach and Revetment Monitoring and Adaptive Management Plan

Prior to issuance of the Coastal Development Permit, the applicant shall submit, for the review and approval of the Executive Director, a Beach and Revetment Monitoring and Adaptive Management Plan. The plan shall be prepared by a qualified engineer with experience in coastal engineering and incorporate the following components. The plan shall include provisions for regular assessment of the beach and revetment conditions, consistent with the following:

- A. <u>Baseline Beach Profile Survey Data and As-built Plans</u>: In order to analyze changes to the beach and revetment over time, the plan shall include the existing baseline beach conditions and shoreline change, developed from historic aerial photos of the beach, profile survey data from BEACON, U.S. Geological Survey, U.S. Army Corps of Engineers, other County agencies, and background surveys of the beach used for revetment planning and design. The baseline report should include data, surveys, copies of photos, analysis of change, and the surveyed as-built revetment plans.
- B. <u>Periodic Beach Profile Surveys</u>: A licensed surveyor or engineer shall survey full depth beach profiles for each of the identified beach profile transect lines at Goleta Beach (BEACON Transect Lines GB-01, GB-02, and GB-03, as shown on <u>Exhibit 6</u>, or equivalent survey locations, identified as appropriate by the County, with two lines through the revetment and one line downcoast of the revetment) on a semi-annual basis each the first spring and fall season forfollowing issuance the term of this permit and each spring where any portion of the revetment is exposed</u>. Each of the beach profile transects shall be

established with a permanent location that can be identified by Baseline Survey Markers and GPS coordinates.

- C. <u>Monthly Revetment Inspections</u>: A visual and, as appropriate, quantitative inspection of the area of the approved revetment shall be performed on a monthly basis for the term of this permit to detect and document exposure of the revetment rock and signs of erosion. Detailed data sheets shall be developed and used for each monthly revetment inspection that includes: the results of the inspection, including photographs from pre-determined locations; site maps upon which the location, dimensions (length and height) of exposed rock areas, and other details of any exposed portions of the revetment can be noted; and the name, title, and contact information of the person(s) undertaking the revetment inspection; and the date, time and tidal conditions of the inspection. Visual inspections may be undertaken by a qualified licensed surveyor or engineer in conjunction with the periodic beach profile surveys, or by other trained personnel.
- D. <u>Maintenance Actions</u>: The plan shall reflect that future maintenance and repair of the approved rock revetment may be completed for the term of this permit consistent with the following limitations:
 - If monthly revetment monitoring identifies that 200 linear feet or more of the approved revetment rock is exposed for 6 consecutive months, sand cover shall be placed on the exposed area and <u>where appropriate_ly planted with native coastal strand/southern</u> foredune vegetation to help stabilize the placed sand. Any rock or other debris from the revetment that becomes dislodged through weathering, wave action, or settlement shall be removed from the beach or deposited on the revetment on an as-needed basis.
 - 2. The rock revetment and/or sand cover may be maintained in its approved size, location, and configuration. The importation of a minor amount of new rock and/or beach-compatible sand may be allowed, if necessary, to maintain the approved size, height, footprint of the revetment and/or sand cover. In no event shall more than 10% of the approved volume of the revetment be imported for any individual revetment repair project (the addition of more than this maximum for any individual repair project shall require a new coastal development permit and is not exempt pursuant to this condition). No future repair or maintenance, enhancement, reinforcement, or any other activity affecting the rock revetment shall be undertaken if such activity extends the seaward footprint of the revetment or expands the size, height, or footprint of the approved revetment.
 - 3. Minor sand backpassing activities may be conducted to place beach-compatible sand on the exposed portions of the revetment on an as-needed basis. Where feasible, any planned minor sand backpassing activities to maintain sand coverage on the revetment shall be coordinated to coincide with routine beach grooming activities in order to minimize the use of mechanical equipment on the beach. Appropriately-sized donor beach nourishment material generated as a result of an opportunistic beach nourishment project or program that is approved by the Commission pursuant to a separate coastal development permit may also be utilized to bury exposed portions of the approved rock revetment on an asneeded basis.
 - 4. Maintenance actions shall be implemented in compliance with construction Best Management Practices and completed in a timely manner. No machinery or mechanized

equipment shall be allowed at any time within the active surf zone, except for that necessary to remove any errant rocks from the beach seaward of the revetment. All maintenance materials and equipment shall be removed in their entirety from the beach area by sunset each day that work occurs. Any and all debris resulting from maintenance activities shall be appropriately removed from the project site within 24 hours. Equipment shall not be cleaned on the beach or in the adjacent beach parking areas. Any unsafe debris or other materials that may become exposed on the revetment or the beach in the area of the revetment shall be removed and exported to an appropriate offsite disposal area in order to protect public health and safety and coastal resources.

- 5. Maintenance actions shall avoid adverse impacts to protected sensitive species. Disturbance to beach wrack and coastal strand/southern foredune habitat shall be minimized to the maximum extent feasible. If maintenance actions are required during the nesting or breeding seasons of any potential sensitive species in the project area (including but not limited to western snowy plover) or during the seasonally predicted run period and egg incubation period, as identified by the California Department of Fish and Game, the applicant shall retain the services of a qualified biologist or environmental resources specialist with appropriate qualifications acceptable to the Executive Director, to conduct sensitive species surveys prior to any maintenance activities. The environmental resource specialist shall conduct a survey of the project site to determine presence and behavior of sensitive species one day prior to commencement of any maintenance activities authorized on the project site pursuant to this permit, and immediately report the results of the survey to the applicant and the Commission. In the event that the environmental resources specialist reports finding any sensitive species within 500 ft. of the required maintenance activities, the applicant shall postpone commencement of work. If the environmental resources specialist determines that any grunion spawning activity is occurring and/or that grunion are present in or adjacent to the project site, then no maintenance activities shall occur on, or adjacent to, the area of the beach where grunion have been observed to spawn until the next predicted run in which no grunion are observed. Required maintenance activities may resume only if adverse effects to the protected sensitive species can be avoided.
- 6. The applicant shall submit a Project Notification Report prior to the commencement of any maintenance actions, for the review and approval of the Executive Director, except under emergency conditions where immediate work is required to address public health and safety. The Project Notification Report shall describe all supplemental actions, timing of work, staging areas, equipment to be used and method of construction and shall include all relevant monitoring reports required pursuant to this permit for the project site to ensure that the operations are in substantial conformance with the resource protection and public access conditions of this permit. All supplemental actions and work shall be in accordance with all conditions of this coastal development permit. No change to the program beyond the supplemental actions outlined by the approved plan shall occur without a Commission-approved amendment to the permit, unless the Executive Director determines that no such amendment is required.
- E. <u>Annual and Mid-term Reporting Requirements</u>: The applicant shall prepare and submit an Annual Monitoring Report, for the review and approval of the Executive Director, for the term of this permit. The monitoring report shall include all data required by this condition, all monthly monitoring forms, and a written report prepared by a qualified coastal engineer indicating the results of the monitoring program. The monitoring report shall include analysis

and conclusions regarding the condition and effectiveness of the revetment, any changes in beach/shoreline profiles, any changes in the public's ability to safely access the beach, and details on any maintenance or adaptive management actions undertaken pursuant to the approved adaptive management plan during the year. The report shall include a brief history of all previous years' monitoring results to track changes in conditions. Should the monitoring reports reveal any unanticipated significant adverse resource or public access impacts not addressed in the Commission's authorization and/or the approved Beach and Revetment Monitoring and Adaptive Management Plan, the Executive Director may require the submittal of a permit amendment for the review and approval by the Commission to address and evaluate mitigation measures to compensate for any adverse resource impacts, public access impacts, and/or require any mid-course corrections or adjustments to the plan.

Ten (10) years from the date of Commission action on this permit, the applicant shall submit a Mid-term Assessment Report to the Executive Director, that documents the results of the required Beach and Revetment Monitoring and Adaptive Management Plan and includes analysis and conclusions regarding the condition and effectiveness of the revetment, any changes in beach/shoreline profiles, any changes in the public's ability to safely access the beach, and details on any maintenance or adaptive management actions undertaken pursuant to the approved adaptive management plan during the year. Should this mid-term assessment report reveal any significant adverse resource or public access impacts not addressed in the Commission's authorization and/or the approved Beach and Revetment Monitoring and Adaptive Management Plan, the Executive Director may require the submittal of a permit amendment or new coastal development permit for the review and approval by the Commission to re-evaluate the project, the permit term, feasible alternatives, and measures to address any identified adverse resource or public access impacts.

- F. <u>Trigger for Re-evaluation of the Approved Revetment</u>: Should significant erosion and overtopping of the rock revetment occur in which 200 linear feet or more of the approved revetment is exposed for 24 months in total from the date of permit issuance (despite goodfaith attempts to maintain it in its approved configuration and maintain sand coverage), the applicant shall submit a new coastal development permit application for re-evaluation of the approved shoreline protection plan for Goleta Beach County Park, including a complete evaluation of all feasible alternatives to the retention of the rock revetment in its approved asbuilt location. The evaluation of all feasible alternatives shall address, at a minimum, removal and/or relocation of the approved rock revetment and relocation of threatened park facilities and utilities to more landward locations outside of the expected wave-caused erosion zone (managed retreat). The information concerning the alternatives evaluation shall be sufficiently detailed to enable the Coastal Commission to coequally evaluate the feasibility of each alternative for addressing shoreline protection, public access, and other coastal resource issues under the Coastal Act. The new permit application shall be submitted within six months of reporting this trigger.
- G. <u>Public Access Maintenance and Management</u>: Safe pedestrian beach access shall be maintained across the approved revetment between the upland portion of the park and the sandy beach and shore. Should continuous portions of the rock revetment that are 200 feet or more in lineal extent become exposed through wave action or erosion, and it is no longer feasible or effective to cover those portions of the rock revetment with sand pursuant to the maintenance actions identified in part D of this condition, designated beach accessways over the revetment (such as temporary steps or stairway) that are a minimum of 3 feet wide shall be constructed for every 100 feet of continuous revetment exposure. The temporary beach

accessways shall be oriented at an angle to the predominate wind direction to avoid blow-outs and be maintained clear of obstructions or barriers to allow safe pedestrian access. Should the temporary beach accessways no longer be necessary to cross the revetment to reach the shore due to the build-up and coverage of sand on the revetment, the temporary beach accessways shall be removed.

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

3. Limitations on Beach Grooming and Wrack Management

Mechanized beach grooming activities shall be limited to above the high high water line and for no more than three (3) times per calendar year - once immediately before Labor Day, Fourth of July, and Memorial Day. Grooming activities shall be implemented in a manner that avoids the removal or disturbance of wrack to the maximum extent feasible; i.e. during grooming, backpassing, or nourishment activities, wrack shall be avoided with the exception of debris that is entangled in the wrack, and which poses a clear threat to public safety, may be removed as needed. Trash shall be removed by hand to the maximum extent feasible and the mechanical removal of large debris that poses a clear threat to public safety shall be allowed.

4. Public Access Program

By acceptance of this permit, the applicant agrees to the following:

- A. Safe public access to or around areas where maintenance and adaptive management activities will occur shall be maintained during all project operations. Public parking areas shall not be used for staging or storage of maintenance equipment and materials, unless there is no feasible alternative. Where use of public parking spaces is unavoidable, the minimum number of public parking spaces (on and off-street) that are required to implement the maintenance activities and for the staging of equipment, machinery and employee parking shall be used. The applicant shall post the maintenance site with a notice indicating the expected dates of construction and/or beach closures.
- B. The applicant shall continue to provide free (no charge) public access and vehicle parking at Goleta Beach County Park for the term of this permit.

5. Assumption of Risk, Waiver of Liability and Indemnity

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

Prior to issuance of the Coastal Development Permit, the applicant shall submit a written agreement, in a form and content acceptable to the Executive Director, incorporating all of the above terms of this condition.

6. Indemnification by Applicant

Liability for Costs and Attorney's Fees: By acceptance of this permit, the Applicant/Permittee agrees to reimburse the Coastal Commission in full for all Coastal Commission costs and attorney's fees -- including (1) those charged by the Office of the Attorney General, and (2) any court costs and attorney's fees that the Coastal Commission may be required by a court to pay -- that the Coastal Commission incurs in connection with the defense of any action brought by a party other than the Applicant/Permittee against the Coastal Commission, its officers, employees, agents, successors and assigns challenging the approval or issuance of this permit. The Coastal Commission retains complete authority to conduct and direct the defense of any such action against the Coastal Commission.

7. Required Approvals

Prior to issuance of this coastal development permit, the applicant shall obtain all other necessary State permits that may be necessary for all aspects of the proposed project (including approvals from the California Department of Fish and Game, California State Lands Commission, and Regional Water Quality Control Board, unless evidence is submitted that such approval(s) are not required). In addition, by acceptance of this permit, the applicant agrees to obtain all necessary Federal permits that may be necessary for all aspects of the proposed project (including, but not limited to, the U.S. Army Corps of Engineers).

8. Condition Compliance

Within 6 months of Commission action on this coastal development permit, or within such additional time as the Executive Director may grant for good cause, the applicant shall satisfy all requirements specified in the conditions hereto that the applicant is required to satisfy prior to issuance of this permit. Failure to comply with this requirement may result in the institution of enforcement action under the provisions Chapter 9 of the Coastal Act.



May 8, 2015

California Coastal Commission South Central Coast Area 89 South California Street, Suite 200 Ventura, CA 93001

Re: Goleta Beach County Park (W22a)

Dear Honorable Commissioners:

The following comments are submitted by the Environmental Defense Center ("EDC") on behalf of the Santa Barbara Chapter of the Surfrider Foundation ("Surfrider"), regarding Santa Barbara County's proposed Goleta Beach County Park rock revetment project ("Project"). Surfrider and EDC have been attempting to work with the County for many years to implement a long-term solution to the coastal erosion issue at Goleta Beach. In 2009 we supported the Coastal Commission's denial of a proposed permeable groin project as well as the Commission's direction to the County to pursue a softer option such as managed retreat.

The current proposal seeks approval of 1,200 feet of unpermitted rock revetment which has caused significant impacts to the beach, public access and safety, marine and terrestrial resources, recreation, and aesthetics. The existing revetment violates several policies of the California Coastal Act, as discussed herein.

The staff report fails to acknowledge these impacts and policy inconsistencies because the report assumes that the revetment is buried most of the time, except during large storm and wave events. As such, the recommendations in the report include monitoring and adaptive management to address potential *future* impacts.

Unfortunately, the western portion of the revetment is exposed quite often, and has already caused adverse impacts to the beach, the coastal ecosystem and public recreation and safety. The time for adaptive management on the west end is now. The Project should only be approved if mitigation measures are required to address current as well as potential future impacts. Specifically, the western exposed 150 feet of the rock revetment should be removed, and the western half of Parking Lot 7and utility infrastructure should be relocated out of the coastal process zone. This modification will ensure compliance with the Coastal Act, reduce Project impacts, is feasible, and will not affect any of the developed recreation facilities. Exhibit 2a

Addendum CDP Application 4-14-0687 906 Garden St. Santa Barbara, CA 93101 PHONE (805) 963-1622 FAX (805) 962-3152 PHONE (805) 640-1832 FAX (805) 648-8043 www.EnvironmentalDefenseCenter.org

I. <u>Background</u>

It has been approximately 30 years since the first rocks were installed on the west end of Goleta Beach. These rocks, measuring 250 feet, were installed without any permits. Then, another 950 feet of rocks were installed from 2002-2005 pursuant to an emergency coastal development permit ("CDP") that expired in 2008. The entire 1,200-foot rock seawall is currently unpermitted. The County has been directed by the Commission for many years to develop a solution for Goleta Beach that does not rely on hard structures such as a revetment.

In 2006 the County applied for a CDP to construct a permeable groin structure off the coast of Goleta Beach. In 2009 the Commission voted 9-1 to deny the application based on concerns that the project would cause further beach erosion. Several Commissioners gave the County explicit direction to submit a new application for a managed retreat project.

In the Commission's 2013 comments regarding the County's Draft Environmental Impact Report ("EIR"), the Commission staff "advise[d] against retaining the existing unauthorized rock revetment and strongly recommend[ed] that the County pursue alternatives other than hard armoring of the coast."¹ The Commission staff stated that "[t]he unauthorized rock revetment should be promptly removed. Then, as necessary, managed retreat measures may be implemented."²

Indeed, the County did develop a proposal that incorporated a managed retreat approach ("Goleta Beach 2.0") but ultimately rejected that approach in favor of leaving all of the rocks in place.³ As discussed herein, approval of this Project would violate the California Environmental Quality Act ("CEQA") and the Coastal Act.

II. <u>The Commission's analysis of the Goleta Beach County Park Project violates</u> <u>CEQA</u>.

The Coastal Commission operates pursuant to a certified regulatory program under CEQA.⁴ Accordingly, the Commission may not approve a project "if there are feasible alternatives or feasible mitigation measures available that would substantially lessen a significant adverse effect that the activity may have on the environment."⁵ The Commission's analysis of the Project must include "a description of the proposed activity with alternatives to the activity,

¹ Letter to Alex Tuttle, County of Santa Barbara, from A. Amber Geraghty, Coastal Program Analyst, August 30, 2013, emphasis added (attached hereto and referenced herein as "Geraghty letter").

² *Id*, emphasis added.

³ The County's EIR found that leaving the rocks in place would not result in a significant impact because the EIR used a post-construction baseline. As the Commission staff noted, this baseline was improper and did not accurately disclose the impacts of the existing rock seawall. See Geraghty letter at pp. 1, 5.

⁴ Public Resources Code ("PRC") Section 21080.5; CEQA Guidelines Section 15251(c).

⁵ PRC Section 21080.5(d)(2).

and mitigation measures to minimize any significant adverse effect on the environment of the activity."⁶ The staff report, however, fails to adequately analyze the Project's impacts or consider mitigation measures and alternatives that would avoid or substantially lessen the Project's impacts, because the report incorrectly determined that impacts are less than significant.

A. <u>The environmental analysis incorrectly assumes that the existing rock revetment</u> is set back and buried except during large storm and wave events.

The Commission's environmental review is deeply flawed because the entire analysis is premised on the assumption that the existing rock revetment is "sited near the back of the beach, and it has remained largely buried under beach sand since its installation" and that "it can periodically become exposed as a result of large storm and wave events." (Staff report at 2.) Furthermore, "it is anticipated that the revetment will continue to remain buried at most times and become exposed only periodically. Therefore, in the near-term, as long as the current trends continue, the buried revetment is not expected to result in significant adverse effects on coastal processes and sand supply." $(Id.)^7$

In actuality, the western portion of the rock revetment is located within the tidal zone, is often exposed, and is not buried except for large storm and wave events.⁸ In its existing condition, the western rock revetment is causing significant adverse impacts on the beach environment and coastal processes, public access and recreation, marine and terrestrial biology, and visual and aesthetic resources. As noted by David Revell, PhD, an expert on coastal processes and Goleta Beach in particular, "Much of the findings in the [Coastal Commission] staff report seem based on the statement that the west end revetment is largely covered by sand for much or all of the year; **this statement is incorrect**."⁹

As Revell points out, "the existing revetment is positioned well seaward of the 'coastal process zone'."¹⁰ In fact, Revell states that his research disclosed that in "**13 of the last 17 years those west end rocks were exposed during the widest and highest sand levels found in the fall**."¹¹ He further states, "When the rocks are exposed there is a negative feedback loop in which the reflected wave energy from the exposed rock inhibit sand deposition on the beach and thus narrow the beach and reduce rates of natural beach recovery. These are very active interactions between the coastal process and the west end when the structure is exposed and this has

⁶ PRC Section 20180.5(d)(3)(A).

⁷ This assumption is based upon the County's Revised Project Description dated December 22, 2014, which incorrectly states that "the 1,200 feet of revetment in question is placed relatively high up on the beach and has been largely buried since its installation...Given its location high on the beach profile, the revetment is likely to remain largely buried for the foreseeable future and any exposure or impacts on narrowing beach widths would be infrequent and temporary." Staff report Exhibit 3 at p. 3.

⁸ See attached photographs; Memorandum to Coastal Commission from David Revell, PhD, May 8, 2015 (hereinafter "Revell 2015,") attached hereto.

⁹ Revell 2015 at p. 2, emphasis added.

¹⁰ *Id.* at p. 3.

¹¹ *Id.* at p. 2, emphasis added.

happened more than ~75% since the 1997-98 El Niño."¹² Moreover, "[e]xisting shore protection structures on Goleta Beach have significantly narrowed beach widths (Revell and Griggs 2006). This beach narrowing results from both placement loss and passive erosion and has been shown to be statistically significant at central and eastern Goleta Beach where the revetments frequently interact with wave uprush/swash."¹³

Accordingly, the analysis in the staff report is incorrect and fails to adequately disclose the impacts of the proposed Project.

B. <u>The environmental analysis relies on a future kelp restoration project to find a</u> reduction in coastal erosion.

The staff report also understates the potential future impacts of the rock revetment by relying on an approved but as yet unbuilt kelp restoration project. (Staff report at 30-31.) This project, however, has not been constructed and there is **no evidence** that it may help reduce shoreline erosion.¹⁴

C. <u>The environmental analysis fails to adequately address all potential impacts from</u> <u>the proposed Project</u>.

Coastal Commission staff submitted a letter to the County on August 30, 2013, commenting on the County's Draft EIR for the Project.¹⁵ In addition to the fact that the EIR used an improper (post-construction) baseline, the Commission identified several deficiencies with the County's assessment of environmental impacts that are relevant to the Commission's current review of the Project.

• The Commission noted that "[t]he analysis of biological impacts in the DEIR should be based upon up-to-date *comprehensive* biological surveys." The Commission noted that "[f]or the purposes of reviewing CDP applications, we will require recent (completed within 1-2 years of application submittal) biological information."¹⁶

The staff report does not indicate that recent comprehensive biological surveys were conducted or submitted. In fact, it is not clear whether the Commission's biologists reviewed and analyzed this proposal.

¹² *Id*. at p. 3.

¹³ *Id*. at p. 2.

¹⁴ See Elwany, M., O'Reilly, W., Guza, R., and Flick, R. (1995). "Effects of Southern California Kelp Beds on Waves." *J. Waterway, Port, Coastal, Ocean Eng.*, 121(2), 143–150: a study of the effect of a *Macrocystis* kelp forest on shoreward propagating surface gravity waves at four locations around a 350-m-wide kelp bed off Carlsbad, California, found that the kelp forest did not have a significant effect on waves.

¹⁵ Geraghty letter.

¹⁶ *Id.*, page 4, emphasis in original.

In addition, the staff report fails to note foraging by Belding's savannah sparrows on the western beach; the report states that these species are only present in the Goleta Slough and outlying wetland areas. (Staff report at 40.) This finding contradicts the Commission's earlier assertion in its comments on the County's DEIR, which reference "Belding's Savannah Sparrows that live and nest in Goleta Slough and forage in the wrack at Goleta Beach (*especially at the western portion of Goleta Beach*)...^{*17}

• The staff report states that coastal strand vegetation at Goleta Beach does not meet the Coastal Act definition of environmentally sensitive habitat area ("ESHA") because it is degraded. (Staff report at 41.) This statement contradicts the earlier assertion by the Commission that the coastal strand habitat is considered as ESHA.¹⁸

Jenny Dugan, PhD, who has more than 30 years' experience as a coastal ecologist and is an Associate Research Biologist at UCSB (Marine Science Institute), has extensive experience researching the ecology of Goleta Beach and states that "[t]here is clear evidence of remnant coastal strand vegetation growing and reproducing at Goleta Beach between the revetment and the parking lot/road despite the presence of unsuitable fill soil in these areas. The native vegetation present as of May 7, 2015 includes red sand verbena, pink sand verbena, beach salt bush, salt grass (a wetland species), and beach burr as well abundant sea rocket."¹⁹ Dugan notes that the "presence of multiple coastal strand/southern dune species including mature individuals, at the right place and elevation at Goleta Beach" qualifies the area as ESHA.²⁰

Moreover, the fact that ESHA may be degraded is not grounds for designating the area as non-ESHA and thus depriving the area of protection. In *Bolsa Chica Land Trust v. Superior Court* (1999) 71 Cal.App.4th 493, 507-508, the court held that the Coastal Act "does not permit its restrictions to be ignored based on the threatened or deteriorating condition of a particular ESHA," and pointed out that "[r]ather, under the statutory scheme, ESHA's, whether they are pristine and growing or fouled and threatened, receive uniform treatment and protection." The alleged degraded nature of the coastal strand habitat does not obviate the County's obligation to protect this area.

According to Dugan, the revetment has adversely affected the ESHA in this area: "[t]he revetment has fixed the shoreline, caused erosion resulting in beach /coastal strand habitat loss and cut off connectivity between the beach and the remnants of coastal strand and southern foredune habitat that have managed to persist at Goleta Beach."²¹

- 20 Id.
- 21 *Id*.

¹⁷ *Id.*, page 5, emphasis added.

¹⁸ *Id.*, page 5.

¹⁹ Email communication from Jenny Dugan, May 8, 2015 (emphasis added) (hereinafter referred to as "Dugan"), letter to follow.

- In several instances, the staff report relies on the County's EIR to find significant impacts if the rock revetment is removed (e.g., to coastal processes, recreation) (Staff report at 28) despite the fact that the EIR's determinations were based on a post-construction baseline that the Commission staff criticized as improper in its August 2013 comments on the DEIR.²²
- The Commission's 2013 letter asked the County to assess the Project's consistency with Coastal Act section 30221, which protects recreational uses of oceanfront land "unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property are already adequately provided for in the area."²³ The staff report fails to analyze the Project's conformity with this policy.
- The staff report fails to disclose or analyze impacts to habitat from the construction, operation and retention of the rock revetment to date despite a specific request to the County to provide the type and amount of habitat that would be impacted if the rock revetment were to be retained.²⁴
- The staff report fails to analyze the recreational impacts caused by exposure of the rocks²⁵ because the report erroneously states that the rocks are rarely exposed.
- Finally, the staff report fails to disclose the recreational impacts caused by loss of beach sand "due to an exposed revetment fixing the shoreline,"²⁶ again because the report incorrectly relies on the assumption that the rock revetment is rarely exposed.

In sum, the environmental review provided in the staff report is inaccurate, misleading and incomplete. Because the report finds that the existing Project is not causing any significant adverse impacts, no mitigation measures or alternatives are required. Although the staff recommendation includes several conditions, they only address potential *future* impacts and do not mitigate impacts that are already caused by the existing rock revetments (especially on the west end of the beach).

III. <u>The Project violates the Coastal Act.</u>

The staff report analysis of consistency with the Coastal Act suffers from the same improper assumption that the existing unpermitted rock revetments are set back and buried most of the time. In fact, at the west end of the beach, the revetment is frequently exposed and subject

²² *Id.* at pages 1, 5-7.

²³ *Id.* at page 6.

 $^{^{24}}$ *Id.* at page 10.

²⁵ *Id.* at page 11.

 $^{^{26}}$ *Id*.

to wave action. This condition results in current violations of Coastal Act policies protecting beaches from erosion, public access and recreation, protection of biological resources, and scenic views.

A. <u>Coastal Erosion</u>

Revetments and similar hard structure shoreline protective devices are discouraged because they cause negative impacts to sand supply, public access, coastal views, natural landforms, shoreline beach dynamics on and off site, and cause eventual loss of beach. (Staff report at 21-22.) The proposed Project is no different. Installation of the rock revetment displaced part of the beach and, at the western end of the beach, has caused beach loss and thus adverse impacts to public access, recreation, environmentally sensitive coastal habitats, and aesthetics.

According to Coastal Act section 30235, seawalls and revetments are only allowed "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."

The existing rock revetment violates section 30235 for the following reasons:

1. The portions of the Park that are protected by the rock revetment in question are not coastal-dependent.

The Coastal Act defines "Coastal-dependent development or use" as "any development or use which requires a site on, or adjacent to, the sea to be able to function at all."²⁷ The rock seawall in question allegedly protects the developed portions of the park, such as the parking lots, lawn, picnic facilities, and utility lines.²⁸ None of these facilities require a site on, or adjacent to, the sea *to be able to function at all*.

In addition, the County's EIR confirms that these facilities can be relocated to other areas of the park.²⁹ Therefore, the Project fails the first, fundamental requirement of section 30235 and must be denied.

2. The revetment is not required to protect existing structures or public beaches in danger of erosion; other options are available that would not cause the negative impacts of a revetment.

²⁷ Coastal Act section 30101.

²⁸ The staff report also mentions the restaurant and public restrooms, but the restaurant and two restrooms are located further east of the revetments in question, and the one restroom that is within the Project area would not be implicated by removal of the exposed rocks because it is located further to the east.

²⁹ EIR at 2-5 to 2-7 and 4.10-49 to 4.10-50.

As noted above, in both 2009 and 2013 the Commission directed the County to consider managed retreat alternatives to the revetment. One such option could be similar to the Surfer's Point project approved by the Commission in 2006. In that case, the Commission approved a project that required relocation of a rock revetment, parking lot, bike path, fence, storm drain outlet, and reconfiguration of a street. By removing and relocating this coastal infrastructure, the beach area was preserved.³⁰

According to Revell, who has studied Goleta Beach since 2003, "there are other viable alternatives than revetments that could be used to reduce storm induced erosion."³¹ Some of these alternatives are included in the County's Goleta Beach 2.0 EIR, including "natural shoreline management" or "managed retreat."³²

The Commission staff's proposed Conditions acknowledge the feasibility of managed retreat through an adaptive management program; the only problem with the proposed Conditions is that they do not acknowledge that the subject revetment is substantially exposed and already causing impacts, so the time is now to address the exposed rocks on the west end of the beach.

3. The revetment is not designed to eliminate or mitigate adverse impacts on local shoreline sand supply.

As discussed above, the existing rock seawall has already resulted in significant impacts to shoreline sand supply.³³ Additional impacts are expected over time, due to the presence of the rock seawall and future increases in sea level rise.³⁴ Accordingly, the Commission cannot find that the proposed Project will "eliminate or mitigate adverse impacts on local shoreline sand supply."

The Project also violates Coastal Act section 30253, which requires that new development shall "neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area..." The staff report relies on the assumption that the rock revetment is largely buried to find the Project consistent with this section.

As noted above, this assumption is incorrect and is not based on the current state of the rock revetment and beach in front of the revetment, especially at the west end of the beach. The attached photographs provide overwhelming evidence that the existing revetment is not "largely

³⁰ See attached excerpt from California Coastal Commission staff report, November 16, 2006; project approved with conditions.

³¹ Revell 2015 at p. 4.

³² *Id.* at pp. 3-4.

³³ Revell 2015 at pp. 2-3.

³⁴ Revell 2015 at p. 3: "If we take a long view into the future, the inevitability of sea level rise projected to be up to [approximately] 5.5 feet by 2100 (NRC 2012) or 19 inches by 2050 (Exhibit 9) it is clear that during a large wave event, the frequency and duration that these rocks are exposed will only increase over the long term." *See also* attached letter to the Commission from Dr. Orrin Pilkey, May 5, 2015 (hereinafter referred to as "Pilkey 2015").

buried" at the west end of the Beach. Revell's years of observations and study of the beach confirm that the existing rock revetment has already caused significant erosion and geologic instability at Goleta Beach.³⁵

Dr. Orrin Pilkey, a national expert on coastal processes, also acknowledges that the rock revetment at the west end of Goleta Beach is exposed "frequently at all times of the year" and notes that "it is clear that the revetments are already harming Goleta Beach."³⁶ Dr. Pilkey points out the inevitability of further erosion at Goleta Beach and endorses a more strategic approach that avoids certain emergencies in the future.³⁷ He recommends against using hard structures to protect buildings and park areas "at the price of **loss of the beach**."³⁸ He therefore recommends removal of the damaging rock revetment in order to protect coastal-dependent beach uses.³⁹

In the spirit of compromise, Surfrider recommends removing the exposed section of the rock revetment on the west end of the beach, and monitoring the rest of the revetment as part of an adaptive management plan.

B. <u>Recreation</u>

Surfrider supports the condition ensuring free parking at Goleta Beach. This beach is visited by all economic sectors of the community, including many low income families and individuals. Maintaining the accessibility of this beach and park is a high priority under the Coastal Act.⁴⁰

We are concerned, however, that the staff report fails to analyze the Project's consistency with Coastal Act section 30220, which provides that "Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses." Use of the beach for recreation cannot be provided at inland sites and therefore must be protected. Goleta Beach County Park is popular *because it is at the beach*. The rock seawall at the west end of the park is damaging the beach to the point where it is frequently impassable. In addition, the rocks – which are often exposed – block access and create a dangerous condition and disincentive for people to use the beach in that area. Use of the inland park facilities, on the other hand, could be provided elsewhere and may not be protected at the sacrifice of the beach area.

A recent survey conducted by the County found that "98% of respondents report that Goleta Beach County Park is essential for coastal access, and that "61% of visitors consider Goleta Beach to be their primary coastal access point." According to the survey results, 65% of the visitors at Goleta Beach County Park use all aspects of the park, 35% use the park for beach and water access, and 20% use the park and lawn area exclusively. When the survey respondents

- ³⁷ *Id.* at p. 2.
- ³⁸ *Id.* at p. 3, emphasis in original.
- ³⁹ *Id*.
- ⁴⁰ Coastal Act section 30213.

³⁵ Revell 2015 at pp. 2-3.

³⁶ Pilkey 2015 at p. 3.

were asked what activities they regularly engage in when visiting Goleta Beach, the most popular activity was "beach going" (62% of respondents).⁴¹

In any event, removing the rock revetment at the west end of the park would not affect the developed recreation facilities because they are located further to the east. Removing the western parking spaces would not affect access because, according to the County's EIR, they can be relocated elsewhere within the park. In addition, Surfrider's recommendation would protect the relocated utility lines and southwest facing edge of the reconfigured Lot 7 with a compacted earth berm.

The Project is also inconsistent with Coastal Act sections 30210 and 30211, which ensure maximum public access to the sea and use of dry sand and rocky coastal beaches. The rock revetment currently interferes with public access to and along the sea by creating unsafe conditions (due to exposed rocks). The staff report finds that the Project is consistent with the Coastal Act because it relies on the incorrect assumption that the revetment is set back and buried. In fact, the revetment is built *on the beach* and thus reduces the area of sand available for public use. The revetment is not set back or buried on the west end of the beach. Accordingly, the revetment is causing narrowing and erosion of the beach and thus interfering with the public's right of access and use of the beach.⁴²

The proposed conditions are meant to mitigate this impact but would actually exacerbate this interference by restricting access up to 200 feet for six continuous months or a total of twenty-four months. This restriction clearly violates the plain language of the Coastal Act, which does not allow even a temporary interference with public access and use of the beach. Moreover, the access ramps proposed in Condition 2G do not mitigate impacts to lateral access and during high tides.

C. <u>Biological Resources</u>

The staff report again relies on the false premise that the rock seawall is buried to find the Project consistent with Coastal Act sections 30230, 30231, and 30240.

Section 30230 requires special protection for "areas and species of special biological significance." These uses "shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes." Section 30231 requires the maintenance and restoration of biological productivity and quality of coastal waters "appropriate to maintain optimum populations of marine organisms and

⁴¹ "Goleta Beach Recreational User Survey 2015," Santa Barbara County Parks, attached hereto. The report also states that *observed use* found that on average approximately 55% of the park visitors used developed park facilities and lawn area and 45% used the sandy beach. These numbers differ from the results of the survey but even if these numbers are accurate, removing the west end of the rock seawall will not have any impact on the developed park facilities and lawn area.

⁴² Revell 2015 at pp. 2-3.

for the protection of human health." The staff report identifies the coastal strand/southern foredune vegetation as an area of special biological significance. (Staff report at 41.)

The Project is inconsistent with Coastal Act sections 30230 and 30231 because it has disturbed the coastal strand/southern foredune vegetation. In addition, "moving sand to cover the revetment would likely kill the coastal strand and southern foredune vegetation that now manages to persist at Goleta Beach."⁴³

The Coastal Act also protects environmentally sensitive habitat areas, or ESHA, which includes "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments." Coastal Act sections 30240, 30107.5.

The staff report states that surveys at Goleta Beach show that vegetation on the beach is highly degraded and lacks substantial cover, and that even prior to installation of rock revetment, there was a lack of intact coastal strand/southern foredune vegetation. (Staff report at 41.) Therefore, the report finds that the beach does not qualify as ESHA. Interestingly, the staff report does find that the beach constitutes an area of special biological significance but states that the Project will not affect the area because the rock revetment is located landward and there is sufficient sand supply. (*Id.*)

First, the coastal strand habitat does constitute ESHA and is protected pursuant to Coastal Act section 30240. In the Commission's 2013 letter to the County, the Commission staff informed the County that "the Coastal Commission considers coastal strand habitat, which is incipient dune habitat, and salt marsh habitat, environmentally sensitive habitat or ESHA."⁴⁴

Second, as noted above, even degraded ESHA is protected under the Coastal Act. *Bolsa Chica Land Trust v. Superior Court*, 71 Cal.App.4th at 507-508.

As ESHA, the beach must be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas." Coastal Act section 30240. As noted above by Dugan, the revetment has disturbed the habitat in this area by causing erosion that has resulted in beach / coastal strand habitat loss, and by cutting off connectivity between the beach and the coastal strand and southern foredune habitat at Goleta Beach.

Goleta Beach also supports a significant grunion run. New photographic evidence demonstrates that the western rock revetment, where exposed, is preventing grunion spawning because there is no beach at high tide. (See attached photographs.) Grunion cannot spawn on the revetment. Dr. Karen Martin of Pepperdine University agrees that rock revetments harm grunion and that management of Goleta Beach should involve managed retreat:

⁴³ Dugan.

⁴⁴ Geraghty letter at p. 5; see also, Dugan (cited above).

"Goleta Beach is an important site for spawning runs of the California Grunion, *Leuresthes tennis*. This location is the northernmost location for significant runs in most years. Sandy beaches are critical habitat for this endemic, indigenous fish species, and the only habitat in which they are known to spawn. One of the consequences of armoring shorelines is increased erosion that ultimately leads to loss of the beach habitat, particularly the upper beach habitat that is dry during most tides. This is the part of the beach that California Grunion depend on for spawning. Any solution for the future of Goleta Beach should preserve the sandy beach habitat and allow for shoreline retreat in the coming years."⁴⁵

The Project is already causing significant biological impacts, including impacts to Goleta Beach's significant grunion run, related to the beach narrowing in front of the exposed revetment. As a result, the Project violates Coastal Act sections 30231, 30230 and 30240.

D. Visual and Aesthetic Resources

Coastal Act section 30251 mandates protection of scenic and visual qualities of coastal areas. This section also requires that development shall minimize the alteration of natural land forms, and must be visually compatible with the character of surrounding areas. Again, the staff report finds the Project consistent based on the misstatement that the rock revetment is "largely buried." (Staff report at 44.)

In fact, the western portion of the rock revetment is often exposed, causing an unsightly disruption to the otherwise scenic nature of the beach. As shown in the attached photographs, the revetment has altered the natural land forms of the beach.

In addition, the revetment is replete with rusty rebar and metal pipes sticking out of concrete blocks. (See photographs.) This poses a visual impact and a safety hazard. Permitting rusty rebar, pipes and concrete on a beach is not in keeping with the spirit or letter of the Coastal Act.

IV. <u>Recommendation</u>

Because the proposed Project will impact the beach and violate the Coastal Act, it must either be denied or further conditions must be imposed. Surfrider and EDC worked with the County for many years in the hopes of coming up with a project that everyone could support. Goleta Beach 2.0 offered promise but was not supported by the County in the end. In the spirit of compromise, Surfrider offers the following proposal that conforms to the Commission's **adaptive management approach** while acknowledging that the western rock revetment is already exposed and causing impacts.

• Remove the exposed section of rock revetment on the west end (150 feet);

⁴⁵ Dr. Karen Martin email to Brian Trautwein, EDC, May 7, 2015.

- Relocate the parking spaces in this portion of Lot 7 pursuant to the County's EIR Mitigation Measure REC- 5b, and slope the new shore line downward from the remainder of Parking Lot 7 towards the beach to avoid scouring; protect the new southwest facing edge of the remaining portion of Lot 7 with a compacted earth berm;
- Protect the UCSB pump station with an approximately 25-foot long buried cobble berm;
- Relocate the affected utility lines inland, and protect them with compacted earth berm in accordance with Goleta Beach 2.0;
- Modify the proposed Monitoring and Adaptive Management Plan as follows:
 - Modify 2C. to require weekly photo documentation by onsite County staff at fixed stations at 100-foot intervals; photographs should include entire length of rock revetment;
 - Modify 2D.1 to require action if 100 linear feet or more of rock revetment is exposed for 3 consecutive months, based on photo documentation required in Condition 2C; and
 - Modify 2F to require re-evaluation if the photographs required in Condition 2C depict exposure or overtopping of the rock revetment for 100 linear feet or more at least once in any month for 12 months in total.

These recommendations are feasible. Removal of the rock revetment and relocation of parking spaces and utilities were considered as part of the County's Goleta Beach 2.0 Project, which has never been found by the County to be infeasible.⁴⁶ The County has a CIAP grant with \$900,000 remaining that can be used to implement this Project. In fact, the CIAP funds can *only* be used for a managed retreat project, as stated in the approved CIAP Project Narrative:

The proposed project is the removal of 43,100 square feet (0.98 acres) of existing paved parking lots 6 and 7; establishment of a transportation and utility corridor outside the "coastal process zone;" relocation of existing utilities and a portion of the Coastal Bike Trail to the corridor; protection of the existing Goleta Sanitary District sewer ocean outfall vault; removal of existing rock revetment with expired permits at the western end of the park; all requiring approximately 3,690cy of cut and 3,670cy of fill; addition of new bike racks; and import and spreading of approximately 1,850cy of sand to create a beach environment where the parking lots were removed.⁴⁷

⁴⁶ EIR at 2-13 to 2-22; March 18, 2014 Santa Barbara County Board of Supervisors Meeting Action Summary and Meeting Minutes. <u>https://santabarbara.legistar.com/Calendar.aspx#current</u>.

⁴⁷ State of California Coastal Impact Assistance Plan – Santa Barbara County CIAP Project Narrative, attached hereto.

If the funds are not used for this purpose, they will need to be returned.

These Project modifications would reduce impacts and provide consistency with the Coastal Act.

Conclusion

Surfrider and EDC support the Commission's adaptive management approach to address coastal erosion challenges at Goleta Beach. Because the west end of the beach has already been impacted by the existing unpermitted rock revetment, it is time to remove that portion of the revetment and begin the process of restoring the beach for recreational, biological, geological and aesthetic reasons.

We look forward to working with the Commission and the County to develop a solution that will protect all of Goleta Beach now and into the future. Thank you for your consideration of our comments and recommendations.

Sincerely,

Linda Krop Chief Counsel

Brian Trautwein Environmental Analyst

cc: Surfrider Foundation County of Santa Barbara

Attachments:

Photographs of exposed rocks

Letter to Alex Tuttle, County of Santa Barbara, from A. Amber Geraghty, Coastal Program Analyst, August 30, 2013

Memorandum to Coastal Commission from David Revell, PhD, May 8, 2015

Letter to Steve Kinsey and Commissioners from Dr. Orrin Pilkey, May 5, 2015

California Coastal Commission staff report regarding Surfer's Point Project, November 16, 2006, pp. 1-23

Goleta Beach Recreational User Survey 2015, Santa Barbara County Parks

State of California Coastal Impact Assistance Plan – Santa Barbara County CIAP Project Narrative

Exposed Revetment Photos



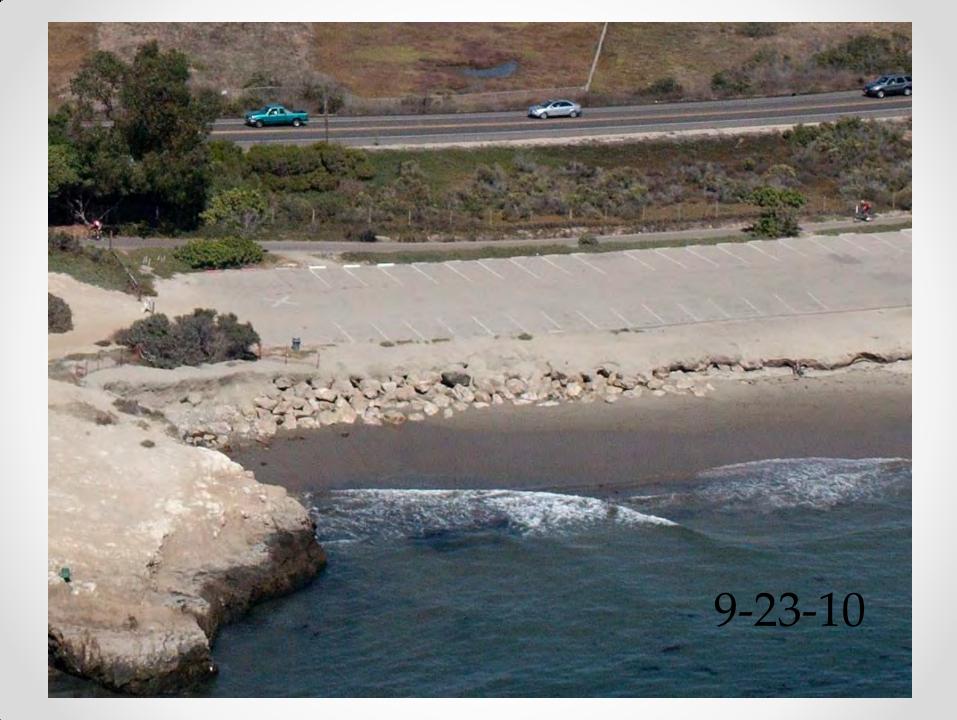




















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5-7-15 (no grunion where revetment is exposed)

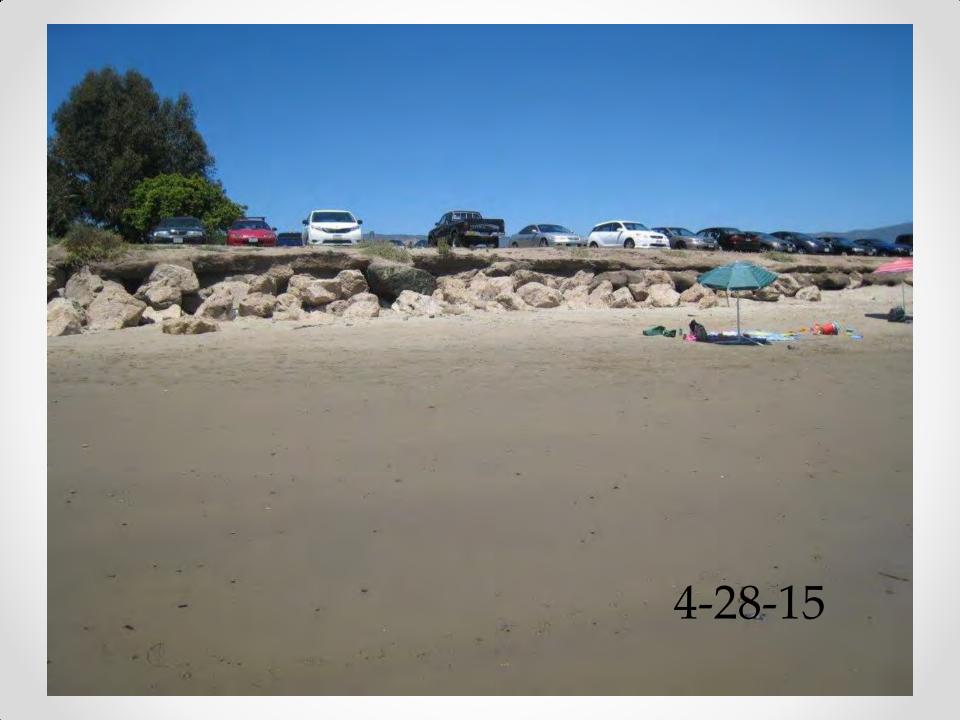








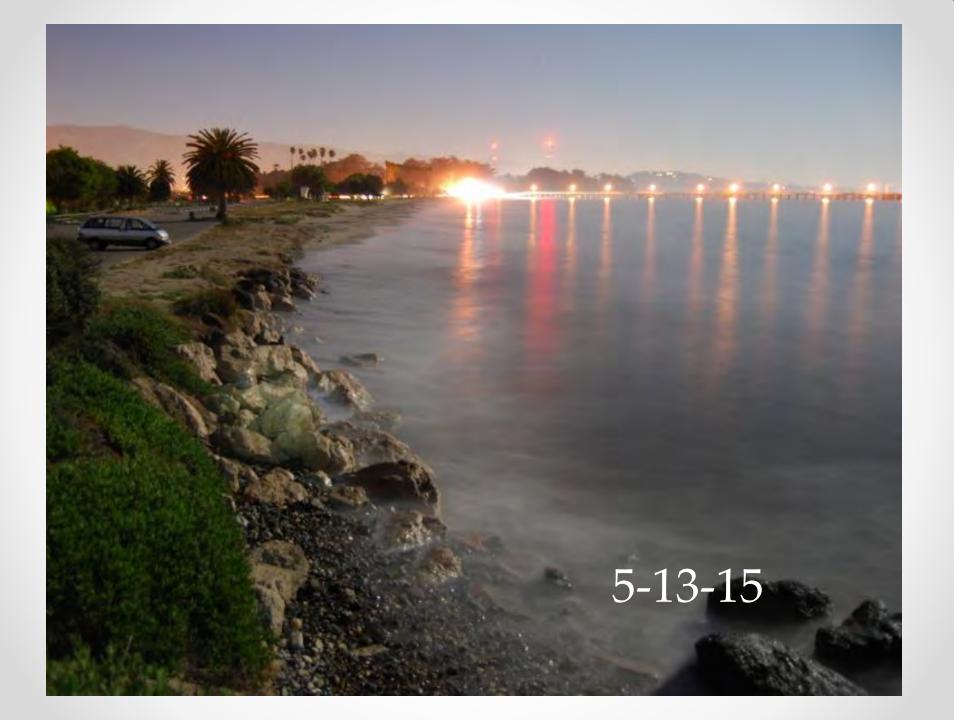






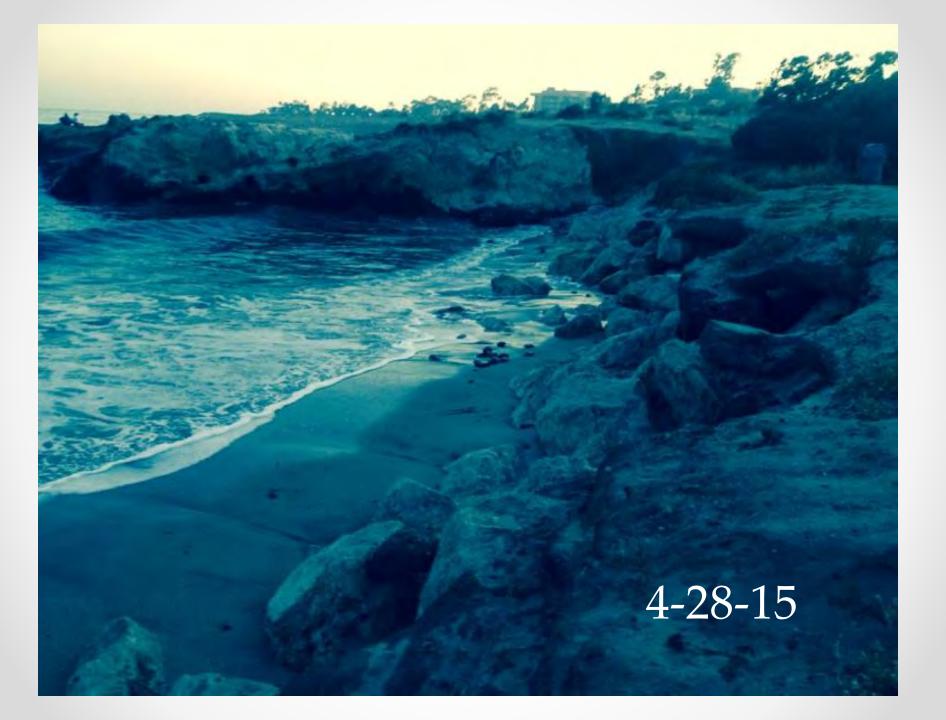
















CALIFORNIA COASTAL COMMISSION

SOUTH CENTRAL COAST AREA 89 SOUTH CALIFORNIA ST., SUITE 200 VENTURA, CA 93001 (805) 585-1800



August 30, 2013

Alex Tuttle County of Santa Barbara 123 E. Anapamu Street Santa Barbara, CA 93101

RE: Draft Environmental Impact Report, Goleta Beach County Park Long-Term Protection Plan

Dear Mr. Tuttle:

Commission staff has reviewed the Draft Environmental Impact Report for the Goleta Beach County Park Managed Retreat Project 2.0 ("DEIR"), dated June 2013, and are providing the following comments for your consideration. The proposed Goleta Beach County Park Managed Retreat Project 2.0 ("proposed project") includes the following project components, as described in the DEIR: removal of parking lots 6 and 7 (107 spaces) and restoration of the area to sandy beach, construction of a 40 ft. wide transportation and utility corridor with 500 ft. long earthen berm and relocated at-risk utilities (sewer line, water line, telephone conduit, reclaimed water line, and gas line) to the new utility corridor, relocation of an approximately 1,800 ft. long section of bike path to the utility corridor, construction of a geotextile dune (9 ft. high x 13 ft. wide) and buried cobble revetment (250 ft. long x 5. ft. high x 40 ft. wide) to protect the Goleta Sanitary District sewer outfall pipe and vault, removal of the approximately 1,200 ft. long unauthorized rock revetment, addition of bike parking, and potentially the relocation of the western restroom building outside of the coastal process zone. The DEIR also included three project alternatives: Natural Shoreline Management (Alt. 1), Temporary Revetment Retention and Pilot Coastal Protection Projects with Beach Nourishment (Alt. 2), and Westward Managed Retreat Program Alternative (2015-2050) (Alt. 3). Please consider our comments, below.

Overarching Comments:

- 1. Baseline for Analyzing Impacts. Any analysis submitted to the Coastal Commission in the future for permitting purposes must evaluate the impacts of the project and each alternative relative to the shoreline that would exist if the existing unauthorized rock revetment was not present. The baseline conditions cannot be the existing asbuilt condition since it would not provide useful information regarding potential impacts. Given that the as-built approximately 1,200 ft. long revetment has not yet been authorized, the proposed project and all alternatives for management of erosion at Goleta Beach must be considered relative to the shoreline that would exist without this shoreline protection.
- 2. Managed Retreat Implementation Plan. The DEIR discusses future development of a Managed Retreat Implementation Plan ("MRIP") as part of proposed mitigation measures to address the potential damage to the Park that could occur following retreat (as described in mitigation measures on pgs. 4.1-19, 4.1-27, 4.4-56, 4.6-10,

4.7-12, 4.10-31, 4.12-11, 4.12-14) The DEIR states that the MRIP "shall be divided into two broad sets of actions: the first to address shoreline management at or near the Mean High Tide Line and emergency measures (e.g., debris cleanup, construction of a winter beach berm, sand bags, etc.)" and "the second shall address longer-term Park reconfiguration projects (e.g., restroom relocations, removal of Rangers' residences)." The DEIR states that the draft MRIP shall be completed within 18 months of the land use clearance for the project and indicates that the draft MRIP shall be provided to the California Coastal Commission for review and comment (p.4.1-19). Instead of developing a MRIP as part of a future process, we strongly recommend that such a plan be prepared and analyzed in relation to the proposed project and project alternatives. Please note that the actions anticipated to be included the MRIP within the Coastal Act and will need to be included in the project as part of any CDP application submitted to the Coastal Commission.

3. Description of on-going beach nourishment. The DEIR contains various discussions of a "Goleta Slough Maintenance and Beach Nourishment Program" and the activities of the Santa Barbara County Flood Control District's "ongoing beach nourishment" at Goleta Beach. (p.4.4-28) Currently, there is no active Coastal Development Permit "CDP" from the Coastal Commission for deposition of material directly onto Goleta Beach to serve as beach nourishment. The Coastal Development Permit for the opportunistic beach replenishment program under BEACON project (CDP No. 4-02-074) expired in 2010, after a term of 5 years. Additionally, the most current Santa Barbara County Flood Control District CDP allows deposition of tested desilted material within the active surfzone and not directly onto the beach. Therefore, the baseline for discussions and analysis regarding on-going beach nourishment at Goleta Beach should be adjusted accordingly and any new proposed beach nourishment (as proposed in project alternatives) must be described in detail and analyzed independently for impacts.

Proposed Project

1. Buried Geotextile Dune and Cobble Berm: The DEIR describes the proposed geotextile dune structure as consisting of two layers of sand-filled geotextile bags approximately 9 f. high and 13 ft. wide at its base, with the first layer installed approximately 5 ft. below existing grade. The geotextile revetment would be fronted on the seaward side by a buried 250 ft. long cobble berm, up to 5 ft. high and 40 ft. in width at its toe. The entire structure would be buried with a newly constructed sand dune approximately 4.5 ft. above existing grade. (p. 2-14 and p.2-15) The purpose of this structure is to protect the Goleta Sanitary District sewer outfall pipeline and vault buried below the Park. The sewer outfall pipeline connects to the vault at a depth of 10 ft. below MLLW. (p.4.12-13) Please provide a rationale of why such a large protective device occupying a substantial area of sandy beach is necessary and provide an analysis of whether a smaller protective device for the sewer outfall and pipe is feasible. Has a geotextile core dune with a cobble berm been used in any other projects or is this technique wholly experimental? What options, besides cobble, are feasible to protect the geotextile revetment? Can the geotextile revetment be designed to function without added scour protection?

CCC Comment Letter August 30, 2013

- 2. The geotextile revetment is only expected to be effective for about the next 15 years (until 2030). Are there other 10 to 20 year options that could replace the geotextile revetment and cobble berm? What alternative "soft" solutions are feasible?
- 3. Various descriptions in the DEIR state that the cobble berm could be exposed and begin to erode within only a few successive storm seasons. (p.4.4-53) Further, the DEIR states that "modification or complete relocation would be necessary to preserve the functionality of the vault as a sewer maintenance point over the long-term." Thus, given the potentially short lifespan of such a device, please provide an analysis of the feasibility of relocating the sewer pipeline and maintenance vault to a landward location, either outside of the coastal process zone or to a location where it would be protected by the existing permitted seawall.
- 4. Transportation and Utility Corridor. The utility corridor is proposed to be located partially within the Caltrans right-of-way. Is it feasible to locate the utilities either within the shoulder or under Highway 217 (entirely outside of the coastal process zone)? For the proposed utility corridor/bike path location, is any native vegetation proposed to be removed besides coyote brush scrub? Is any wetland or ESHA proposed to be impacted? Figure 2-2 seems to depict the area as "marshland." Please describe the steps and project timing for obtaining approval from Caltrans to locate the utility corridor within the Caltrans easement.
- 5. Restroom Relocation: Figure 2-2 of the DEIR depicts the potential restroom relocation site in "marshland." Please evaluate relocating the restroom building to an already developed area and outside of all wetland areas.
- 6. Cumulative Projects Scenario. Table 3-1 *Pending and Approved Projects in the Project Vicinity* notes that a "Goleta Slough Ecosystem Management Plan (GSEMP") is in development. Please provide more information about the GSEMP and how such a plan may relate to any future shoreline management projects at Goleta Beach.
- 7. The analysis for the proposed project notes that once the revetment is removed, there will be inland materials such as concrete and asphalt that will erode into the nearshore area. These materials may be harmful to the marine environment, and as noted in the DEIR, they can also be safety hazards. To the extent possible, these materials should be replaced with non-hazardous materials prior to the removal of the revetment. If not all harmful materials can be removed and replaced with more benign materials, there should also be a safety and cleanup plan developed to clear the beach and nearshore of all safety hazards following any erosive storm.
- 8. Biological Resources
 - a) The DEIR mentions that Goleta Beach is groomed to remove debris especially during the summer months (p.4.3-3). The DEIR also states that the beach is cleaned of trash and seaweed three times annually, after major winter storms, and if public complaints are received. (p.4.10-14). Please provide a more detailed description of any past and on-going beach grooming operations, including the removal of beach wrack (how is it removed, how much is removed, where is it removed from), or any other maintenance that

occurs on the sandy beach at Goleta Beach. Please provide an analysis of how these activities may impact or have impacted beach ecology.

- b) The analysis of biological impacts in the DEIR should be based upon up-todate *comprehensive* biological surveys. For the purposes of reviewing CDP applications, we will require recent (completed within 1-2 years of application submittal) biological information.
- c) The DEIR does not provide an adequate analysis of the biological impacts of a cobble berm on to the existing beach ecology. Cobble is not part of the Goleta Beach environment at present, as noted in the Coastal Processes discussion. Once introduced into the system, cobble can be quite mobile (e.g., as experienced at the Ventura River mouth). We are concerned with the introduction of cobble to this area relative to its effects to the beach environment and the slough. Please provide an analysis of the impacts to cobble on the swash zone, upper beach, and coastal strand habitat. Additionally, what impacts would cobble have on the mouth of Goleta Slough? The inlet conditions at Goleta slough represent a dynamic balance between longshore sediment transport across the slough mouth and through the ebb tidal delta, flood and ebb tidal delta balance, tidal flow in and out of the slough, freshwater flows through the Slough and sediment carried into the slough from inland sources. The DEIR states that dispersal and loss of cobbles from the proposed cobble berm would occur from large storm waves and longshore currents would transport cobble downcoast (p.4.4-54) It is particularly important to for the DEIR to provide an analysis of the impacts from cobble to the mouth of the Goleta Slough for the proposed Project and alternatives relative to potential changes in the frequency that the slough mouth is in an open and/or closed condition. In addition, please address any potential impacts to slough closure and impacts on fish passage into the slough.
- d) The information presented on raptor and shorebird use of Goleta Beach Park in the DEIR does not appear to be based on recent surveys conducted at the site. Have surveys been conducted of the site in the past and/or in recent years? If so, what are the results of these surveys? If not, up-to-date field surveys should be conducted to determine the use of the park by raptors and shorebirds for nesting and foraging. Normally we would require a minimum of one year of surveys for shorebirds. We would, therefore, recommend that the County start surveys from Campus Point to well east of the Goleta slough inlet as soon as possible and supplement any missing time periods with historical data and information as needed.
- e) Golbose dune beetles are listed as occurring within the coastal strand habitat found at Goleta Beach. However, the DEIR does not present any sampling data from this coastal strand community.Surveys for this and other invertebrates should be conducted in the coastal strand community at Goleta beach.
- f) A figure and table should be presented to show exactly what type, location, and acreage of habitats will be filled in with geotextile core dune/cobble berm

structures or other structures as a result of the proposed Project and project alternatives. Similarly, a figure and table should also be presented to show exactly what type, location, and acreage of habitats will be permanently changed as a result of future relocation of park facilities (parking, utilities, restrooms, etc.).

- g) Any project at Goleta Beach must take into consideration and ensure the continued use of the area by the following sensitive species: globose dune beetles that occupy coastal strand habitat and have been identified in this habitat at Goleta Beach; Belding's Savannah Sparrows that live and nest in Goleta Slough and forage in the wrack at Goleta Beach (especially at the western portion of Goleta Beach); Western Snowy Plovers which have been identified near the slough mouth at the eastern end of Goleta Beach; red sand verbena, a coastal strand/southern foredune species that has been found at Goleta Beach; and southern tarplant, which tends to do well in disturbed coastal habitats, has also been identified at Goleta Beach.
- h) The DEIR identifies coastal strand and salt marsh habitat as communities of special concern however the Coastal Commission considers coastal strand habitat, which is incipient dune habitat, and salt marsh habit, environmentally sensitive habitat or ESHA.
- 9. Coastal Processes
 - a) Baseline for Coastal Processes analysis. Impact CP-1 states that "Removal of existing rock revetment in the Park west of the Beachside Bar-Café would expose much of the Park to coastal processes, potentially resulting in shoreline retreat and damage to shoreline lawn, structures, and Park facilities from both wave run-up and coastal erosion. Impacts to Goleta Beach County Park from coastal processes would be significant (Class I)." The DEIR states that "the proposed Project would move away from the County's historic approach of using coastal protection structures to protect the west end of the Park toward a managed retreat approach to allow shoreline fluctuation in response to natural processes." The determination that a significant impact will occur due to the proposed Project is a result of using the incorrect baseline for analysis. While the management technique has been coastal armoring on an emergency/temporary basis, the baseline for analysis should be the site conditions that would exist but-for the unauthorized revetment. Please provide an analysis of impacts to coastal processes from the proposed Project and alternatives assuming the unpermitted revetment does not exist. This analysis is essential for future processing of a CDP application submitted to the Coastal Commission.
 - b) Please explain what is meant by the limit of coastal process zone (100 year Storm Event Erosion Hazard Zones) on Figure 4.4.13. Also explain how this relates to the Potential Wave Run-up under 100-year Storm Conditions (Figure 4.4.12) and why these are seeming discrepancies between the two.
 - c) Goleta Beach has been identified as having significant seasonal oscillation. Following a 100-year storm event, there could be up to 100 feet of inland

erosion; however, much of this could recover due to beach oscillation. Please provide more quantitative information on the beach recovery timeline and likely long-term consequences to the beach and shoreline from a significant storm event.

- 10. Public Access and Recreation
 - a) Baseline for public recreation and access analysis. Impact REC-2 states that "Implementation of the Project would potentially result in significant and unavoidable impacts to recreation and coastal access due to a loss of developed shoreline park and coastal access facilities (Class I)." The DEIR states that "the proposed Project would include a shift from a coastal protection management approach at Goleta Beach Park to one that emphasizes managed retreat." (p.4.10-27) The determination that a significant impact to recreation will occur due to the proposed project is a result of using the incorrect baseline for analysis, the "shift from coastal protection to managed retreat." While the management technique has been coastal armoring on an emergency/temporary basis, the baseline for analysis should be the site conditions that would exist but-for the unauthorized revetment. Please provide an analysis of impacts to public access from the proposed project and alternatives assuming the unpermitted revetment does not exist. This analysis is essential for future processing of a CDP application for any future project submitted to the Coastal Commission.
 - b) Removal of Parking Spaces. The project proposes to remove 107 parking spaces but does not identify alternative areas to relocate any of the lost parking spaces. The proposed Project and project alternatives should incorporate locations where these lost and/or additional spaces may be provided for elsewhere in the park. Additionally, the DEIR should include an analysis of reconfiguring existing parking spaces in the other lots to increase parking spaces. Some of the sites that can be incorporated in the project description are identified in the MM REC-5b, *Parking Replacement Plan* (pgs. 4.10-40 through 4.10-41). Please provide a figure depicting these future potential alternative parking locations. Further, how could parking for those people going to UCSB and not using Goleta Beach Park be restricted or enforced? Consider the options to convert the residential ranger area for use as parking.
 - c) Please include up-to-date survey data of usage of the parking lots (number and percentage of parking spaces used at any given time) and the park (number of <u>visitors per day</u>) during *peak* and *non-peak* times.
 - d) Section 30221 of the Coastal Act protects recreational uses of oceanfront land unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property are already adequately provided for in the area. How would relocation of restrooms and other facilities threatened by erosion landward (without shoreline protection) and some reduction in lawn area affect beach access and usage of the park? Additionally, please provide an analysis of the future projected need for parking and recreational use. Do any nearby facilities have

the capacity to mitigate any loss in parking or recreation facilities at Goleta Beach without the threat of overcrowding? The EIR should also provide an analysis for implementation of an offsite parking and shuttle system and/or alternative transportation options (bus, etc.) to mitigate the identified potential long term impacts to parking at Goleta Beach. This analysis should not be put off for the future as part of a MRIP.

- e) Policy 7-12 of the County's LUP states, in part, that "[t]he County should [also] pursue an agreement with UCSB to use campus parking lots to accommodate the overflow from Goleta Beach Park during peak-use periods." (p.4.10-20). Please explain what steps have been taken to date or what steps the County plans to take to work with UCSB to accommodate public parking as mitigation for any future lost parking spaces at Goleta Beach.
- The DEIR states that, while replacement of developed shoreline park facilities f) with expanded beach, intertidal, or open water areas would support different recreational values such as swimming, fishing, kayaking etc., such offshore recreation already occurs at Goleta Beach and is not in limited supply in the Project vicinity. Further, the DEIR emphasizes that "developed coastal park facilities in the Goleta Valley are in limited supply." (p.4.10-31) Therefore, the DEIR concludes that that loss of developed park facilities would substantially reduce the recreational value of Goleta Beach Park. Commission staff emphasize that the recreational value of sandy beach is also extremely important at Goleta Beach. The DEIR should give equal weight to use of the sandy beach itself, including vertical access to and lateral access along the beach. Sections 30210-30214 of the Coastal Act protect public access to the sea, including, but not limited to, the "use of dry sand and rocky coastal beaches," while still protecting natural resources in the area and preventing overcrowding. Additionally, Sections 30220-30224 and 30255 protect recreational and commercial uses of the coast when these uses cannot readily be provided at inland areas. Grass parks are an amenity that can readily be provided for at any number of inland locations in the vicinity of Goleta Beach. Sandy beaches, however, provide important recreational opportunities that, while different than those provided by a grass park, are important coastal resources and cannot be provided for at inland locations. Grass parks, while valued, are also not essential for the public to recreate on and access Goleta Beach.
- g) For the proposed project, the DEIR does not include an analysis of the impacts of the proposed geotextile dune and cobble berm on public access to and along the beach. What are the potential impacts to public access and recreation on the sandy beach if the cobble berm and/or geotextile dune becomes exposed and begins to erode away? How would routine maintenance of a cobble berm impact public access?

Alternative 1 – Natural Shoreline Management

1. Alternative 1 proposes to install a cobble berm and geotextile core dune system along 2,050 ft. west of the restaurant to the headland at the west end of Goleta

Beach. Please see our comments, above, requesting additional information and analysis regarding the geotextile core dune and cobble berm and potential impacts related to biological resources, coastal processes, and recreation and public access.

- 2. This alternative proposes to initially install 12,000 cubic yards of cobble and anticipates the need to maintain this amount of cobble over time. The DEIR for this alternative only provides a conclusory statement that changes resulting from cobble "would not be anticipated to result in adverse effects to biological resource as such cobbles are already present in the overall system." (p.7-27) What are the potential impacts of a change from a sandy beach to a cobble beach as the cobble erodes? Cobble is not part of the Goleta Beach environment at present, as noted in the Coastal Processes discussion in this DEIR. But, once introduced into the system, cobble can be quite mobile (e.g., as experienced at the Ventura River mouth). We are concerned with the introduction of cobbles to this beach ecosystem. If a cobble berm remains part of the proposed project or any of the alternatives, please analyze mobility, impacts to Goleta Slough, its ecology, impacts to slough closure and impacts on fish passage into the slough.
- 3. The DEIR does not describe what routine maintenance actions would need to occur to keep the geotextile core dune and cobble berm in place after erosional events. The DEIR states that if the dune and berm is subject to wave attack and damage over two successive seasons, the County would cease maintenance of the structure and seek alternative methods for protection of the Park. (p.7-24) Please describe what actions the County would need to take for maintenance of the berm and dune over time. How and at what point would the County determine whether the dune and cobble berm becomes damaged beyond repair? What would removal of the dune and berm entail?
- 4. This alternative proposes to install a 20 ft. long Reflected Wave Energy Dissipator (RWED) inside the eastern cove of the headland at the west end of Goleta Beach. This structure would be constructed from boulders from the unauthorized revetment and stacked against the bluff. How is RWED any different than a rock revetment? What biological impacts would these rocks have on the sensitive species in this area of Goleta Beach?
- 5. For the proposed beach nourishment, please provide a detailed strategy for minimizing, to the greatest extent possible, all adverse impacts to the kelp/eelgrass/surfgrass, rocky reef, shallow soft bottom subtidal, sandy beach (upper, mid, lower zones epifauna and infauna for each zone including shorebirds), wrack, rocky intertidal, coastal strand habitats in the Goleta Beach area from all activities associated with sand replenishment. The strategy should include ecological considerations of timing, sensitive resource avoidance, sand deposition location, and enhanced habitat recovery, at a minimum. In addition, any plans for sand replenishment must identify the sand source location, provide evidence of the suitability of the sand for placement on Goleta Beach from the sand source location, characterize the biology of the sand source location, and provide evidence that the sand source location is the least environmentally damaging location for acquiring sand for replenishment at Goleta Beach.

Greenhouse gas emissions from the proposed beach nourishment program (e.g., number of truck trips) under this alternative should also be analyzed.

- 6. Please provide a table or figure showing the type and amount of habitat that may be potentially impacted from this alternative.
- 7. The DEIR should discuss potential mitigation due to loss of sandy beach from the Alternative 1 revetment.

Alternative 2 – Temporary Revetment Retention and Pilot Coastal Protection Projects with Beach Nourishment

- 1. Alternative 2 erroneously states that the use of hard surfaces for protection of the existing shoreline has not been included in this alternative.(p.7-34) However, this alternative proposes to retain the existing unpermitted rock revetment, which is a hard surface.
- 2. Please clarify whether this alternative proposes a 1,000 ft. long buried cobble berm and geotextile core dune system (p. ES-6) or a 250 ft. long cobble berm and geotextile core dune system (p.7-34)?
- 3. Please see the comments above regarding our request for additional information and analysis of a geotextile core dune and cobble berm.
- 4. Please provide information regarding the parameters of the proposed controlled pilot study for each of the beach protection measures proposed, including success criteria and monitoring, as well as provisions for removing the proposed experimental measures if unsuccessful.
- 5. Please describe what type of maintenance would be necessary for each of the experimental measures.
- 6. How will the results after 10 years of use of the experimental shoreline protective methods (buried cobble berm and geotextile core dunes, Pressure Equalizing Modules, and vegetative revetment) be analyzed to determine which experimental measure were successful or unsuccessful?
- 7. This section includes a discussion regarding ongoing beach nourishment projects. Please see the overarching comments above regarding the baseline for beach nourishment.
- 8. For the proposed beach nourishment, please provide a detailed strategy for minimizing, to the greatest extent possible, all adverse impacts to the kelp/eelgrass/surfgrass, rocky reef, shallow soft bottom subtidal, sandy beach (upper, mid, lower zones epifauna and infauna for each zone including shorebirds), wrack, rocky intertidal, coastal strand habitats in the Goleta Beach area from all activities associated with sand replenishment. The strategy should include ecological considerations of timing, sensitive resource avoidance, sand deposition location, and enhanced habitat recovery, at a minimum. In addition, any plans for sand replenishment must identify the sand source location, provide

evidence of the suitability of the sand for placement on Goleta Beach from the sand source location, characterize the biology of the sand source location, and provide evidence that the sand source location is the least environmentally damaging location for acquiring sand for replenishment at Goleta Beach. Greenhouse gas emissions from the proposed beach nourishment program (e.g., number of truck trips) under this alternative should also be analyzed.

- 9. Please provide a table or figure showing the type and amount of habitat that may be potentially impacted from this alternative.
- 10. Alternative 2 includes a number of project components, including installation of experimental shoreline protection methods, including buried cobble berm and geotextile core dunes, Pressure Equalizing Modules (PEMs) and a vegetative revetment. What is the proposed sequence of construction / installation of the components in this alternative? Are there any important timing triggers that will initiate certain components?

Alternative 3 – Westward Managed Retreat Program Alternative (2015-2050)

- The DEIR has identified Alternative 3 as the environmentally superior alternative. However, Commission staff advises against retaining the existing unauthorized rock revetment and strongly recommends that the County pursue alternatives other than hard armoring of the coast. Commission staff recommends against retaining the unauthorized rock revetment for a "temporary" or extended length of time. The unauthorized rock revetment should be promptly removed. Then, as necessary, managed retreat measures may be implemented (see requested alternatives analysis, below).
- 2. Biological Resources. The DEIR should be revised to accurately identify potential biological impacts associated with the proposed revetment under Alternative 3. Alternative 3 proposes to retain in place the 1,200 ft. long existing unpermitted revetment for up to 20 years, or though the next major winter storm season when they come exposed. (p. 7-53). Then, when required, construct a buried revetment that would total approximately 2,300 linear feet along the seaward edge of the coastal process zone (historic back beach) from the existing restaurant to the western edge of the Park. (p.7-53) Alternative 3 also proposes a new 250 ft. rock revetment to protect the GSD pipeline and vault. (p.7-53) The new buried revetment would be located approximately 4 ft. to 43 ft. landward of the existing revetment location. (Figure 7-4) The DEIR states that, "if the positive PDO and associated severe El Nino storms extend over multiple seasons and combine with future sea level rise to cause continuing erosion, revetment exposure could be more extensive." (p.7-57). Further, according to the DEIR, "prolonged exposure of the revetment would potentially contribute to or accelerate conversion of sandy beach to intertidal beach or open water through passive erosion." (p.7-65). However, the discussions of biological impacts from an exposed revetment in Alternative 3 are not analyzed in the DEIR. The DEIR concludes that "during erosional periods and over the long term, gradual widening of the beach associated with the erosion of the developed parkland and the relocation of the revetment would incrementally increase beach habitat at Goleta Beach County Park, similar to that described for the proposed Project."

(p.7-60) Please provide supporting information for that conclusion or revise the DEIR to provide a thorough description of potential biological impacts from the proposed revetment in Alternative 3.

- 3. Coastal Processes. This Section does not provide an analysis as to what the potential impacts would be from the new proposed 2,300 ft. long revetment on beach narrowing or downcoast transport over time or from retention of the unauthorized as-built revetment for a period of time up to 20 years. Please provide an analysis of how the new 2,300 ft. long revetment and the as-built revetment that would be retained for up to 20 years may impact coastal processes given different potential climatic conditions. Although the DEIR states that "the location of the revetment along the historic back beach...limits the potential duration and degree of future exposure," the very next discussion in the DEIR describes the vulnerability of that area to erosion. (p.7-72 to p.7-73) Furthermore, the DEIR explains that such "armoring could periodically inhibit vertical and lateral beach access during periods of revetment exposure, limit sand storage capacity along the beach by fixing the shoreline, and incrementally contribute to sediment loss within the Santa Barbara Littoral Cell." (p.7-13) Please provide an analysis for prompt removal of the as-built revetment as part of this alternative and an analysis for the need of the proposed "backstop" protection" including the reconstruction of a new revetment or other shoreline protection device in a further landward location. This analysis should evaluate whether such a backstop should be constructed at the time the existing revetment is removed or at some point in the future.
- 4. Recreation. This Section does not differentiate between the recreational impacts from the future exposure of the rock revetment itself (i.e., crossing over rock to access the beach) versus the potential future impacts from loss of beach sand due to an exposed revetment fixing the shoreline. Please include an analysis to explain these potential impacts.
- 5. The DEIR should discuss potential mitigation due to loss of sandy beach from the Alternative 3 revetment.
- 6. Please provide a table and figure showing the type and amount of habitat that may be potentially impacted from this alternative.

Additional Alternative:

All of the proposed alternatives in the DEIR replace the unpermitted revetment with some alternative armoring. The identified cycle of erosion and recover at Goleta Beach strongly suggests support for relocation of the utilities to a safer inland location, combined with an adaptive retreat or managed retreat for the coming decades. In order to balance the need to protect both the upland area and the sandy beach area of the park in a manner consistent with the policies and provisions of both the County's certified Local Coastal Program and the Coastal Act, we request that the County evaluate the following alternative:

Adaptive Management/Phased Approach: Please evaluate an alternative for an adaptive managed retreat approach to: (1) immediately remove the existing unpermitted rock, (2) relocate the utilities to the utility corridor or the highway

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> corridor, (3) relocate the GSD vault and outfall pipeline landward to avoid the need for construction of new shoreline protection or relocate to a location where those structures will be protected by the existing permitted rock revetment, (4) allow for minor repair/reconstruction of existing upland areas of park that are subject to infrequent periodic erosional events, and (5) as upland areas of the park become subject to more frequent erosive events and wave action due to sea level rise, implementation of a detailed, well-planned phased approach to managed retreat that includes a "Managed Retreat Implementation Plan" (MRIP) (discussed throughout the DEIR as a mitigation measure). Rather than immediately remove parking areas or other park infrastructure (restrooms, picnic tables, etc.), a phased plan would keep these facilities as long as possible and respond incrementally by removing/relocating the more seaward structures first as erosion occurs over the short-term and long-term outlined in a MRIP. This alternative should include figures/site plans showing potential new locations for all facilities and structures proposed for relocation.

> A phased approach should include an action plan such that when certain site conditions (triggers or thresholds) occur, certain adaptive actions would follow, as already partially described for an MRIP on p. 4.10-31 through 33 of the DEIR. For example, for each threatened structure, an analysis could be undertaken of the importance and need for the structure given the usage of the park. Is the structure integral to the functioning of a coastal dependent use or other need? What will happen if the structure is either destroyed or removed and not replaced? For each of those structures or facilities that have been demonstrated to be threatened and. what are the options for moving the structure out of the coastal processes zone or mitigating the loss of the structure. For example if parking spots are lost is there nearby parking, what percentage of parking spots are used, is it necessary to replace parking at this exact location, are there options for shuttling or increasing parking offsite? Is there an option for removal of the seaward most picnic benches and barbeques prior to major storm events? Are there natural ground covers that can be used for picnics and other park activities that are less prone to erosion than lawn? A managed retreat implementation plan should plan to address many different scenarios.

We appreciate the opportunity to comment on the Draft EIR for the Goleta Beach County Park Managed Retreat Project 2.0 and we look forward to working with the County on the subsequent submittal of a CDP application to the Commission. Please contact me if you have any questions or concerns regarding these comments.

Sincerely,

amerer Geraghty

A. Amber Geraghty Coastal Program Analyst

Cc: Jack Ainsworth, Senior Deputy Director, CCC Steve Hudson, District Manager, CCC Shana Gray, Supervisor, CCC



MEMORANDUM

Date: May 8, 2015

To: Coastal Commission

From: David Revell, PhD

Subject: Goleta Beach Application 4-14-0687

Introduction

Goleta Beach County Park is a valuable asset to the County of Santa Barbara, and the surrounding cities of Goleta and Santa Barbara. The saga of erosion at Goleta Beach goes back over decades. During the current erosion saga, I have been involved as a researcher and as a consultant. I have a PhD from University of California, Santa Cruz with my research focused on the beaches of Santa Barbara and Ventura Counties with particular emphasis on Goleta Beach, and I have published 5 peer reviewed publications and at least a dozen technical reports relevant to the coastal processes along this stretch of coast. In addition, I am someone who spends much of my free time observing the coast and wishes to see my son be able to enjoy the variety of natural resources and facilities that make Goleta Beach so unique.

In 2003, while working on my dissertation on the climate, storm induced and human impacts to beaches of Santa Barbara and Ventura Counties, the Goleta Beach stakeholder process began, and through my advisor, Dr. Gary Griggs, I was invited to participate. I have been actively involved as a scientist from early in these processs and have actively participated through the initial stakeholder process, Goleta Beach 1.0, Goleta Beach 2.0, and now this version of Goleta Beach County Park Project. During that time I have collected field data, walked the site, set up a video camera on the pier to monitor the beach and wave conditions, modeled storm events, and continue to do modeling and coastal process work along this Santa Barbara County coastline. During the initial stakeholder process, several questions arose in the myriad of discussions that shaped portions of my dissertation.

These questions are still relevant to informing this discussion/decision and include:

- What are the long term impacts of human alterations to the shoreline at Goleta Beach,
- What is the impact of a large El Niño event at Goleta Beach?

My research was conducted largely to provide sound science in support of the complex decision-making process. It is clear that Goleta Beach County Park has been altered extensively by human alterations. I will note that none of the peer reviewed publications that came from this work are referenced in this Coastal Commission Staff report although it is clear that some of the work has been read or just copied directly from other documents that have been generated over the last decade. Given this apparent oversight and to avoid anyone misinterpretting my research, I think it is important to briefly summarize the key findings of my research.



- 1. Goleta Beach has historically fluctuated and has experienced a state of dynamic equilibrium with the most landward extent of erosion being the 1943 back beach.
- 2. The fluctuations in the beach width at Goleta Beach has been related to occasional pulses of sand from upcoast sources as well as the Pacific Decadal Fluctuation which controls the direction of wave energy entering the Santa Barbara Channel.
- 3. Historic El Niño events have impacted Goleta Beach by reducing beach widths by 50%, sand volumes by 60% and require at least 5 years to recover. Major erosion events are not always associated with El Niño events (e.g. March 1, 2014).
- 4. Existing shore protection structures on Goleta Beach have significantly narrowed beach widths (Revell and Griggs 2006). This beach narrowing results from both placement loss and passive erosion and has been shown to be statistically significant at central and eastern Goleta Beach where the revetments frequently interact with the wave uprush/swash.
- 5. Infilling of Goleta Slough and the consequent reduction in the ebb delta has reduced the stability of Goleta Beach and possibly increased the rates of longshore transport.

The intent of my engagement in the Goleta Beach issue has been to interject these scientific findings to inform the stakeholder processes and decision making. My hope has been that this would lead to decisions that gave room to balance and maintain the variety of uses at Goleta Beach for future generations. I have worked with and for everyone within 5 miles of Goleta Beach, County of Santa Barbara, City of Goleta, City of Santa Barbara, Surfrider Foundation, and UCSB.

My recommendations based on my research have typically encouraged gradually realigning the County Park to make room for Goleta Beach to evolve naturally in this dynamic coastal zone far into the future. I firmly believe that there are better alternatives that strike a balance between improved County Park amentities and a sandy beach than the proposed unengineered pile of rocks. I think that aspects of the alternatives in Goleta Beach 2.0 were on the right track.

As I result of my long involvement, I felt obligated to provide public comment on this staff report to represent the science and future generations. To that note, I will make some comments on some of the statements made in the existing staff report that I feel are not entirely correct.

Assumption that the rock revetment is typically buried

Much of the findings in the staff report seem based on the statement that the west end revetment is largely covered by sand for much or all of the year; this statement is incorrect. Sand on the dry sand beach changes seasonally with low sand levels typically experienced in April and May and a maximum sand levels in the late fall before the first large west northwest swells arrive. Sand on the dry sand beach also changes based on upcoast sand supply which largely travels in pulses (called erosion or accretion waves). After reviewing a readily available photo record (from California Coastal Records project, personal photos, photos in the EIRs, site visits, etc), I count that 13 of the last 17 years those west end rocks were exposed during the widest and highest sand levels found in the fall.

Starting with the 1998 emergency revetment, the west end rocks were exposed nearly continuously until at least 2006, then partially exposed during the majority of the years through 2010. Between 2011



and 2013 the rocks were covered most of the time, but the March 1, 2014 event exposed the rocks and portions of the rocks have been exposed since then. So since 1998, the rocks have been partially exposed for 13 of the last 17 years despite large scale nourishment, periodic opportunistic nourishments and other maintenance efforts. When the rocks are exposed there is a negative feedback loop in which the reflected wave energy from the exposed rock inhibit sand deposition on the beach and thus narrow the beach and reduce rates of natural beach recovery. These are very active interactions between the coastal process and the west end when the structure is exposed and this has happened more than ~75% since the 1997-98 El Niño. These interactions negatively affect beach access from the UCSB student parking lot at the west end, lateral access along the beach and the beach ecology that depends on a beach upon which kelp and other algae can be deposited. If Exhibit 5 included a photo from this week we would see that currently the revetment is exposed and actively reflecting wave energy contributing to beach narrowing and scour.

While it is true that during a relatively recent time period, the rocks were usually covered (~2012 to 2014), there were substantive nourishment sand volumes and opportunistic placement of sand from the Goleta Slough onto the beach and relatively small wave conditions. During these times the revetment was not actively affecting the beach profile with any regularity but there is a long term maintenance cost to keeping those rocks covered. These ongoing costs are not associated with other alternatives that are likely more cost effective over the long term.

If we take a long view in the rear view mirror, one can easily see that the existing revetment is positioned well seaward of the "coastal process zone" mapped during my dissertation research as the back of the beach observed during the most landward extent of erosion in 1943 using rectified historic aerial imagery (Revell 2007).

If we take a long view into the future, the inevitablity of sea level rise projected to be up to ~5.5 feet by 2100 (NRC 2012) or 19 inches by 2050 (Exhibit 9) it is clear that during a large wave event, the frequency and duration that these rocks are exposed will only increase over the long term.

Revetment "required" to protect public beaches in danger from erosion"

Section 30235 in the Coastal Act provides a lot of confusion particularly when one considers that the proposed unengineered revetment is "required to protect public beaches in danger from erosion". This is problematic because as a whole revetments and seawalls (shore parallel structures that fix the backbeach) result in a loss of public beach upon construction based solely on the footprint of the structure (placement loss). For this emergency west end revetment this covers 0.49 acres of sandy beach. As large erosive wave events impact the unengineered structure, the structure will start to fail and the rocks will occupy an even larger portion of the beach.

Regardless of engineering, with sea level rise, the fixing of the back of the beach will lead to long term loss of beach fronting the structure (passive erosion). This may already be occurring as evidenced by the narrow beach currently fronting the revetment this past week. One only has to look at the other revetments along Goleta Beach to see the significant long term narrowing of the beach in front of the other structures (Revell and Griggs 2006).



Back to engineering, I firmly believe that there are other viable alternatives than revetments that could be used to reduce storm induced erosion. Many of them were laid out in the Goleta 2.0 EIR and summarized on page 25 of the staff report. As one who has spent over a decade studying Goleta Beach and considering viable alternatives, I think that the natural shoreline management alternative or the managed retreat program offer long term cost effective solutions. Surfer's Point in Ventura which was unanimously approved by the coastal commission stands as a prime nearby example of a managed retreat project that geo-mimics the natural setting at a river mouth.

Beach and Revetment Monitoring

Given the complexities of the coastal processes at Goleta Beach, I recommend some additional requirements to the Monitoring and Adaptative Management Plan.

First, given that Goleta Beach is part of a larger system, I think that the monitoring should include some adjacent upcoast and downcoast measurements by including two additional full length semi-annual beach profiles (out to at least 25 feet water depth) (GB-06 and GB-05 in Exhibit 6). A photo point at the Anacapa Stairs /UCSB beach access staircase looking toward Goleta Beach is another good location. Finally an additional full length profiles on the opposite side of the wastewater outfall pipe and ballast rock from GB-03, would improve some remaining questions about sand supply at Goleta Beach.

Second, the collection of subaerial (beach) topographic data immediately in front of the revetment is advised to occur more frequently (perhaps quarterly). This could provide much more information on the effects of this structure and the oscillations of shoreline position (mean high water, mean sea level).

Third, currently the monitoring requires a professional engineer, there are other qualified and interested parties that may be able to conduct this type of work at a much more cost effective means (e.g. USGS, UCSB researchers). I know that the USGS has continued topographic monitoring work I started with them in 2005. This additional monitoring would benefit from having each of these beach profiles monumented so that geodetic control is readily accessible at the site. I recommend establishing such a control network as part of this monitoring program.

Fourth, as far as this being an "Adaptive Management Plan" I think that some experimental approaches should be tested, (e.g. PEMs) and such testing could be implemented more easily if the Coastal Commission and the County designated an area along Goleta Beach as experimental, established some types of experimental approaches that could be allowed and streamlined a "research permit" to encourage nearby researchers to learn more about possible tools for managing coastal erosion. Results could inform the future evaluation of alternative strategies when this issue raises its head again as it has for the past decades of beach oscillations.

Fifth, public access and visitation monitoring, the repetitive use of the 1.5 million visitors a year to Goleta Beach is incorrect. King and McGregor have highlighted the overcounting of visitation at Goleta Beach that relies heavily on traffic trips¹. To fully evaluate the long term viablility of erosion mitigation strategies, it is important to know both the actual maintenance and construction costs as well as more

¹ King and McGregor 2012. Who's counting: An analysis of beach attendance estimates and methodologies in southern California. Ocean and Coastal management 58:17-25



about the uses and visitation at the park. The current car trip method is insufficient and is highly biased due to the frequent use by UCSB students. I recommend that some survey work, lifeguard counts be a focus of this monitoring program as well, there are several great examples of a citizen docent program at Coal Oil Point, perhaps Goleta should develop one as well.

Finally, the triggers for re-evaluation of the approved revetment seems to read rather generically, much work and thought has gone into identifying alternatives, and while conditions on the ground change, this 15 year process has taken a lot of resources and energy from many interested parties. It seems that there should be some carrots to encourage a managed retreat longer term approach, or some sticks that will develop funding streams to actually implement a different course of action. Perhaps a bond should be developed to maintain and/or remove the structure over the next 20 years so that when the day comes when the thresholds are triggered there is funding to move forward quickly and data to support making a longer term decision.

Some closing thoughts

I remain dedicated to research along Goleta Beach and I hope to continue to work on furthering the science to evolve and progress our understanding of the causes of erosion and accretion waves. My hope is to improve our capacity to predict the oscillations so we can moderate some of the impacts. I am happy to answer any specific questions that may arise during this current process or in the coming years ahead as the impact of this revetment on the beach become indisputable.

I enjoy watching my son at the beach, frolicking in the surf and playing in the sand. Another innocent, idealistic aspiring coastal engineer like all of us who have built sand castles on the beach then built and fortified walls to try and hold back the ocean only to cry out when the waves claim our castle. Most of us have learned a valuable lesson in those formative sand castle building years. When we rebuild the castle, we should move it back just enough to avoid the waves.

Sincerely,

Rever Nevel

David L. Revell, PhD President and Chief Scientist

Dr. Orrin Pilkey James B. Duke Professor Emeritus of Geology Duke University Box 90227 Durham, NC 27708 opilkey@duke.edu

May 5, 2015

Steve Kinsey, Chair California Coastal Commission 45 Fremont Street, Suite 2000 San Francisco, CA 94105

RE: Comments on Goleta Beach Project Coastal Development Permit

Dear Chair Kinsey and Commissioners,

Thank you for considering the following comments regarding the Goleta Beach Project. I submit these comments in order to help the California Coastal Commission develop a balanced solution to the Goleta Beach issue. The Commission staff recommends a 20-year permit authorizing retention of the rock revetments on the west side of Goleta Beach County Park in Santa Barbara County. Retaining the rock revetments will lead to erosion of the beach adversely affecting coastal processes, beach recreation and sand supply. The Commission should help the County pursue a solution that avoids such impacts and that protects Goleta Beach – including the sandy beach - as an important and irreplaceable community resource.

My background enables me to comment on the Project as an expert in the field of coastal processes. My qualifications to comment on this Project include the following:

- PhD Geology, Florida State University, 1962
- MS Geology, University of Montana, 1959
- BS Geology, Washington State College, 1957

My experience lies in basic and applied coastal geology. In addition, I founded and am now the director Emeritus of the Program for the Study of Developed Shorelines at Duke University. My vita is attached for your information. I have not visited the beach park in question for at least a decade. My long experience has taught me that all beaches in the world are unique in terms of a combination of parameters including wave climate, atmospheric climate, sand supply, offshore bars, width and sediment cover of the adjacent continental shelf, sediment type, beach orientation, coastal type, sea level rise rate and of course the impact of humans. However in this brief document I address some beach issues that are common to all beaches.

As noted in the EIR, sea level rise is expected to be of the order of 3 feet by the year 2100 due to a combination of ice sheet melting and thermal expansion of the ocean. This will have such a huge impact of low lying areas such as the Goleta Beach Park that the rising sea should be a paramount, overriding factor in any aspect of planning for the park. For this reason the County's assertion that the impacts of the revetments are not significant is of particular concern to me. The general trend is crystal clear and it makes no sense to ignore the impacts.

The impacts of the revetments or any shoreline revetment will increase over time in just about all regards. Sea level rise rates are increasing and the level of the sea will be higher in coming years which in itself will be responsible an increase in erosion rates at Goleta Beach. In effect, the equilibrium shoreline position will be further inland as a result of sea level rise and erosion rates will increase as the shoreline attempts to readjust to the new conditions. Storm surges will likely increase in intensity as the seas warm. Even if storm intensity doesn't increase, flooding will increase because of a higher base elevation of the sea. It is a certainty that in the future, both active and passive erosion rates will pick up in front of engineering structures such as the Goleta Beach revetments.

To retain the rock revetments in light of a rising ocean is irresponsible in my view. It means that the response in an attempt to save the park a couple decades from now will be on a crisis basis on a schedule determined by big events (storms). Everything will be on an emergency basis including funding and the time available for planning will be nonexistent. Recognition of the probability of increased sea levels and storm intensities will mean the County will be at least partly prepared. It's a matter of *tactical disarray* versus *strategic preparation*, planned for and primed well in advance.

Apparently the County and Commission staff play down the beach narrowing process (passive erosion) in front of the revetments in part because the natural processes involved are speculative. It's a mentality that suggests that if you cannot figure it out with certainty, hide your head in the sand. That is, who knows when the next storm will arrive, from what direction it will come, where it will strike, how long it will last, what will the storm's intensity be and with what frequency will future storms arrive.

Of course no one knows rates of beach narrowing for certain but as coastal engineer Michael Walther of Coastal Tech has pointed out in his comments on the County's EIR, the extent of narrowing on a decadal time frame is more or less predictable based on current erosion rates along this coastal reach with an adjustment for sea level rise. This will be a ballpark estimate but nonetheless useful for planning and better than one's head in the sand.

There is no such thing as an accurate forecast of the impact of beach processes on a given beach. (There is no such thing as an accurate forecast of any earth surface process). But often an idea of the future can be gained by looking at neighboring beach projects with more than of decade lifespan.

Strong impacts on adjacent beaches are a near certainty. As the beaches narrow due to passive erosion in front of a revetment the surface from which sand is stirred up by the surf and then transported becomes narrower and the amount of sand transported laterally becomes proportionately smaller. Eventually as the revetment protrudes out onto the original beach, it has a groin effect, trapping sand, causing both beach narrowing and further reducing lateral sand transport, starving the downdrift beaches.

Dr. David Revell (Revell Coastal, Inc.) and Gary Griggs (2006) have already documented narrowing on Goleta Beach as a result of other revetments placed on the beach in prior years. The rock revetments at the west end of Goleta Beach are exposed frequently at all times of the year, as can be seen in photos and google earth images. Given this, it is clear that the revetments are already harming Goleta Beach. Retaining the revetments for a period of 20 years or longer will further exacerbate these impacts including erosion, narrowing and submergence of the beach.

Fundamentally use of hard structures at Goleta Beach should be viewed as a means to protect buildings and park areas behind the structures at the price of **loss of the beach**. Your Commission should seek to protect coastal-dependent beach uses and balance resource protection at Goleta Beach by requiring removal of the damaging rock revetments and relocation of threatened infrastructure (sewer line, parking spaces and bike path) to other locations within the park. Such relocation has been studied in the County's EIR, has been priced, and is a feasible alternative which would protect the park facilities, protect the beach from erosion caused by the revetments, and would balance coastal resources including coastal access, recreation and the sandy beach.

Thank you for your attention to these comments.

Sincerely,

Orrin Pilkey, PhD

VITA

Orrin H. Pilkey

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Education:

- B.S., Geology, Washington State University (1957)
- M.S., Geology, Montana State University (1959)
- Ph.D., Geology, Florida State University (1962)

Memberships:

1) Geological Society of America

- 2) Society of Economic Paleontologists and Mineralogists (SEPM)
- 3) Society for Sedimentary Geology
- 4) International Association of Sedimentologists
- 5) American Geophysical Union
- 6) Sigma Xi
- 7) Explorers Club

Experience:

1) Summers 1953-1955, U.S. Forest Service, Missoula, Montana, smokejumper;

2) Summer 1956, General Electric Company, Richland, Washington, ground water geological assistant;

3) 1957-1965, U.S. Army; 6 months active, 8 years reserve – final rank: Captain;

4) Summer 1961, Huber Clay Company, geologic field assistant;

5) 1962-1965, University of Georgia, research associate and assistant professor, Marine Lab, Sapelo Island, Georgia;

6) 1965-1967, Assistant Professor of Geology, Duke University;

7) 1967-1975, Associate Professor of Geology, Duke University;

8) 1965-1970 Director of Graduate Studies, Geology Department, Duke University;

9) 1972-1973, Visiting Professor, University of Puerto Rico, Department of Marine Sciences;

10) 1975-1983, Professor of Geology, Duke University;

11) 1975-1976, Senior research geologist, U.S. Geological Survey, Woods Hole, MA;

12) 1978-1979, Acting Director, Duke University Oceanographic Program;

13) 1983-2001, James B. Duke Professor of Geology, Duke University;

14) 1986-2006, Founder and Director, Duke University Program for the Study of Developed Shorelines;

15) 2001 to present, James B. Duke Professor Emeritus of Earth Sciences;

16) 2006, Founded collaborative program with Western Carolina University of the Program for the Study of Developed Shorelines;

17) 2006-present, Director Emeritus, Joint Western Carolina University-Duke University Program for the Study of Developed Shorelines.

Editorships:

1) Editor, Journal of Sedimentary Petrology, 1978-1983.

2) Associate Editor, Marine Geology, Journal of Coastal Research, and Geology

3) Series Editor, Living with the Shore book series (20 volumes) (with W.J. Neal),

1979-present

Activities:

Member of Duke University scholarly exchange delegation, Peoples Republic of China (1975); member of two state government committees concerned with shoreline development problems; twice member of the Duke University Academic Council (faculty senate); Chairman, Shepard Medal Committee, Society of Economic Paleontologists and Mineralogists, (1971-72); vice-president and program chairman, North Carolina Academy of Science, (1974); marine geology "editor," Glossary of Geology, American Geological Institute, (1976); outside member of various Ph.D. committees in other universities (University of Georgia, George Washington University, University of South Carolina, University of Toronto); University Educational Policy and Program Committee; Duke Marine Lab Advisory Committee; Council, Society of Economic Paleontologists and Mineralogists, (1978-1986); Board of Directors, Association of Earth Science Editors, (1982-1984); Board of Directors, North Carolina Coastal Federation; Board of Directors, The Coastal Alliance; testimony before two congressional committees during barrier island bill deliberations, (1981-1982); Sedimentary Petrology and physical processes panel, Deep Sea Drilling Program; Publications committee, Joint Oceanographic Institute; Member, National Research Council Panel on sea level rise and coastal engineering; President, North Carolina Academy of Science, (1981-1982); Program Chairman, Association of Earth Science

Editors, (1982); Duke University UNOLS representative, (1978-1981); Consultant for shoreline books to Time-Life Books and National Geographic Society; Publications committee, Society of Economic Paleontologists and Mineralogists, (1982-1986); Proposal Review Panel - Submarine Geology and Geophysics, (1984); President-elect of Society of Economic Paleontologists and Mineralogists, (1984), President (1985-86); Program Chairman, 1986 Mid-year Meeting, Society of Economic Paleontologists and Mineralogists; member of Marine Board Committee on Engineering Implications of Changes in Relative Sea-level, National Research Council, National Academy of Sciences; testimony before House Subcommittee on Public Lands and National Parks regarding Oregon Inlet Jetty Project (1984); testimony before joint subcommittee meeting of the Senate Environmental and Public Works committee regarding Oregon Inlet Jetty Project (1984); WAE US Geological Survey (1975-present); organizer, NSF-KOSEF (Korea NSF) conference on Marine Geology of the Yellow Sea, Seoul, Korea (1984); National Academy of Science consultant to Portugal Geological Survey re: start-up of Coastal Geology Program (1985); consultant to "IGNEOMINAS" (Geological Survey of Columbia) re: start-up of Coastal Geology Program (1986); President, SEPM Foundation (1986-1988); Vice President SEPM for Fund Raising, SEPM Foundation (1988-1992); present numerous talks to local civic, social, and environmental groups (8-10 per year); occasional conference keynote speaker; Executive board, Move the Lighthouse Committee (1986-present); testimony before Environment, Energy and Natural Resources Subcommittee of the House Committee on Government Operations on beach replenishment at Ocean City, Maryland (1990); National Research Council Beach Replenishment Panel (1992); Geological Society of America, Geology and Public Policy Committee member (1994-); member of Geological Society of America Council (1994-1996); activities continued, record-keeping discontinued.

Activities of Note:

- President, North Carolina Academy of Science, 1982
- Recipient James B. Duke Professorship, 1983
- President, Society of Economic Paleontologists and Mineralogists (SEPM), 1985-1986
- President SEPM Foundation, Inc., 1986-1989

Awards:

- Francis Shepard Medal for Excellence in Marine Geology, 1987;
- Conservation Educator of the Year, N.C. Wildlife Federation, 1991;
- Honorary Membership, The Society for the Study of Sediments (SEPM), 1992;
- George V. Cohee Public Service Award, The American Association of Petroleum Geologists, 1992;
- James H. Shea Award for exceptional contributions in editing of Earth Science materials, National Association of Geology Teachers, 1993;

- American Geological Institute Award for outstanding contribution to the public understanding of geology (with William Neal), 1993;
- **Outstanding Public Service Award** for extraordinary contributions to achieving FEMA's goals of reducing the impact of disasters on people and communities through mitigation, Federal Emergency Management Agency (FEMA), 1999;
- **GSA Public Service Award in Honor of Eugene & Carolyn Shoemaker**, recognizing the enhancement of the public's understanding of Earth Science, The Geological Society of America, 2000;
- Honorary Doctorate Degree, University of the South (Suwannee), 2001;
- **Priestley Medal, the Dickinson College Award in Memory of Joseph Priestley**, for distinguished research in coastal geology and public service in policy formulation and education about America's coastal resources, Dickinson College, 2003;
- Lifetime Achievement Award from the North Carolina Coastal Federation, 2008.

BIBLIOGRAPHY

BOOKS

Newton, J.G., O.H. Pilkey, and J.O. Blanton, 1971, An Oceanographic Atlas of the Carolina Continental Margin: N.C. Dept. of Conservation and Development, 57 p. Swift, D.J.P., D.B. Duane, and O.H. Pilkey (eds.), 1972, Shelf Sediment Transport, Process and Pattern: Dowden, Hutchinson and Ross, Inc. Stroudsburg, PA, 656 p.

Pilkey, O.H., O.H. Pilkey, Sr., and R. Turner, 1975, How to Live With an Island: N.C. Dept. of Natural and Economic Resources, Raleigh, NC, 191 p.

Pilkey, O.H., and S.J. Fritz (eds.), 1976, A Marine Atlas of Puerto Rico: M.J. Cerame-VIVAS, Inc., San German, Puerto Rico, 139 p.

Pilkey, O.H., W.J. Neal, and O.H. Pilkey, Sr., 1978, From Currituck to Calabash: N.C. Science and Technology Research Center, Raleigh, NC, 228 p. -2nd edition, 191 p. -3rd edition, Duke University Press, Durham, NC.

Doyle, L.J., and O.H. Pilkey (eds.), 1979, The Geology of Continental Slopes: Society of Economic Paleontologists and Mineralogists Special Paper No. 27, 374 p.

Kaufman, W., and O. H. Pilkey, 1979, The Beaches Are Moving: The Drowning of the American Shoreline: Anchor-Doubleday, 326 p. (Book-of-the-Month Club Alternate Selection, 1980). Paperback edition, Duke University Press, Durham, NC, 1983.

Morton, R.N., O.H. Pilkey, and W.J. Neal, 1983, Living with the Texas Shore: Duke University Press, Durham, NC, 190 p.

Pilkey, O.H., Sr., W.D. Pilkey, O.H. Pilkey, Jr., and W.J. Neal, 1984, Coastal Design, A Guide for Planners, Developers and Homeowners: Van Nostrand Reinhold, New York, 224 p.

Pilkey, O.H., Jr., S. Dinesh, H. Wanless, L. Doyle, O.H. Pilkey, Sr., W.J. Neal, and B. Gruver, 1984, Living with the East Florida Shore: Duke University Press, Durham, NC, 259 p.

Neal, W.J., C. Blakeney, and O.H. Pilkey, 1984, Living with the South Carolina Shore: Duke University Press, Durham, NC, 157 p. Doyle, L.J., et al. 1984, Living with the West Florida Shore: Duke University Press, Durham, NC, 222 p.

Kelley, J.R., A.R. Kelley, O.H. Pilkey, and A.A. Clark, 1984, Living with the Louisiana Shore: Duke University Press, Durham, NC, 164 p.

McCormick, L.R., O.H. Pilkey, Jr., W.J. Neal, and O.H. Pilkey, Sr., 1984, Living with Long Island's South Shore: Duke University Press, Durham, NC, 157 p.

Canis, W.F., W.J. Neal, O.H. Pilkey, Jr., and O.H. Pilkey, Sr., 1985, Living with the Mississippi-Alabama Shore: Duke University Press, Durham, NC, 214 p.

Griggs, G., and L. Savoy (eds.), 1985, Living with the California Coast: Pilkey, O.H., and W.J. Neal, (Series eds.): Duke University Press, Durham, NC, 393 p.

Nordstrom, K.F., et al., 1986, Living with the New Jersey Shore: Duke University Press, Durham, NC, 191 p.

Nummedal, D., O.H. Pilkey, and J.D. Howard (eds.), 1987, Sea Level Rise and Coastal Evolution (Armstrong Price Symposium): Society of Economic Paleontologists and Mineralogists Special Publication #41, 266 p.

Carter, C., et al., 1987, Living with the Lake Erie Shore: Duke University Press, Durham, NC, 263 p.

Kraus, N.C., and O.H. Pilkey (eds.), 1988, The Effects of Seawalls on the Beach: Journal of Coastal Research Special Issue #4, 146 p.

Kelley, J.T., A.R. Kelley, and O.H. Pilkey, 1989, Living with the Coast of Maine: Duke University Press, Durham, NC, 174 p.

Ward, L.G., P.S. Rosen, W.J. Neal, O.H. Pilkey, Jr., O.H. Pilkey, Sr., G.L. Anderson, and

S.J. Howie, 1989, Living with the Chesapeake Bay and Virginia's Ocean Shore: Duke University Press, Durham, NC, 236 p.

Finkl, C., and O.H. Pilkey (eds.), 1991, The Impacts of Hurricane Hugo: Sept. 10-22, 1989: Journal of Coastal Research Special Issue #8.

Clayton, T.D., et al., 1992, Living with the Georgia Shore: Duke University Press, Durham, NC, 188 p.

Patton, P.C., and J.M. Kent, 1992, A Moveable Shore: The Fate of the Connecticut Coast: Pilkey, O.H., and W.J. Neal (eds.), Duke University Press, Durham, NC, 143 p.

Bush, D.M., et al., 1995, Living with the Puerto Rico Shore: Pilkey, O.H., and W.J. Neal (eds.), Duke University Press, Durham, NC, 193 p.

Pilkey, O.H., and K.L. Dixon, 1996, The Corps and the Shore: Island Press, Washington, DC, 272 p.

Bush, D.M., O.H. Pilkey, and W.J. Neal, 1996, Living by the Rules of the Sea, Duke University Press, Durham, NC, 179 p.

Lennon, J., W.J. Neal, D.M. Bush, O.H. Pilkey, M.L. Stutz, and J. Bullock, 1996, Living with the South Carolina Coast: 2nd Edition (revised), Duke University Press, Durham, NC, 241 p.

Mason, O., O.H. Pilkey, and W.J. Neal, 1996, Living with the Alaska Coast: Duke University Press, Durham, NC, 348 p.

Komar, P.D., 1997, The Pacific Northwest Coast, Living with the Shores of Oregon and Washington: Pilkey, O.H., and W.J. Neal (eds.), Duke University Press, Durham, NC, 195 p.

Pilkey, O.H., W.J. Neal, S.R. Riggs, C.A. Webb, D.M. Bush, J. Bullock, and B. Cowan, 1998, The North Carolina Shore and Its Barrier Islands: Duke University Press, Durham, NC, 318 p.

Bush, D.M., N.J. Longo, W.J. Neal, L.S. Esteves, O.H. Pilkey, D.F. Pilkey, and C.A. Webb, 2001, Living on the Edge of the Gulf: Duke University Press, Durham, NC, 340 p.

Pilkey, O.H. and M.E. Fraser, 2003, A Celebration of the World's Barrier Islands: Columbia University Press, New York, NY, 309 p.

Bush, D.M., W.J. Neal, N.J. Longo, et al., 2004, Living with Florida's Atlantic Beaches: Duke University Press, Durham, NC, 338 p.

Pilkey, O.H., T.M. Rice, and W.J. Neal, 2004, How to Read a North Carolina Beach: Bubble Holes, Barking Sands, and Rippled Runnels: A beachcomber's guide to curiosities along the shore: University of North Carolina Press, Chapel Hill, NC, 162 p.

Pilkey, O.H., and L. Pilkey-Jarvis, 2007, Useless Arithmetic: Why Environmental Scientists Can't Predict the Future: New York, Columbia University Press, 230 p.

Neal, W.J., O.H. Pilkey, and J.T. Kelley, 2007, Atlantic Coast Beaches: A Guide to Ripples, Dunes, and Other Natural Features of the Seashore: Mountain Press Publishing Company, Missoula, MT, 250 p.

Pilkey, O.H., and R. Young, 2009, The Rising Sea: Island Press, Washington, DC, 203 p.

Kelley, J.T., Pilkey, O.H., and Cooper, J.A.G. (eds.), 2009, America's Most Vulnerable Coastal Communities: Geological Society of America, Special Paper 460, 179 p.

Pilkey, O.H., Neal, W.J., Kelley, J.T., and Cooper, J.A.G., 2011, The World's Beaches: A Global Guide to the Science of the Shoreline: University of California Press, Berkeley, CA, 355 p.

Pilkey, O.H. and Pilkey, K.C., 2011, Global Climate Change: A Primer: Duke University Press, Durham, NC, 142 p.

Cooper, J.A.G. and Pilkey, O.H. (eds.), (in press), Pitfalls of Shoreline Stabilization: Selected Case Studies: Springer.

VIDEOS

The Beaches Are Moving (1992), 1 hour North Carolina PBS production, produced by Michael Sheehan.

Living on the Edge (1996), 1 hour production by Environmental Media, Inc.

Dynamic Shorelines (©2009); (7:30): part of Physical Geology online (distance learning course), produced by Dallas TeleLearning, Dallas County Community College District (Texas): Lynn Millwood, Ph.D. (editor), Craig Mayes (Executive Producer).

ARTICLES

Pilkey, O.H., and Hower, J., 1960, The effect of environment on the concentration of skeletal magnesium and strontium in *Dendraster*: Journal of Geology, v. 68, no. 2, p. 203-216.

Pilkey, O.H., and Gorsline, D.S., 1961, Recent root casts in sediments of the Apalachicola Delta, Florida: Southeastern Geology, v. 3, p. 37-47.

Pilkey, O.H., and Goodell, H.G., 1963, Trace elements in Recent mollusk shells: Limnology and Oceanography, v. 8, no. 2, p.137-148.

Pilkey, O.H., 1963, Heavy minerals of the U. S. South Atlantic continental shelf and slope. Geological Society of America Bulletin, v. 74, p. 641-648.

Pilkey, O.H., 1964, Mineralogy of the fine fraction in certain carbonate cores: Bulletin of Marine Science of the Gulf and Caribbean, v. 14, p. 126-139.

Pilkey, O.H. and Richter, D.M., 1964, Beach profiles of a Georgia barrier island: Southeastern Geology, v. 6, p. 11-19.

Pilkey, O.H., 1964, The size distribution and mineralogy of the carbonate fraction of United States South Atlantic shelf and upper slope sediments: Marine Geology, v. 2, p. 121-136.

Pilkey, O.H. and Frankenburg, D., 1964, The relict-Recent sediment boundary on the Georgia continental shelf: Bulletin of the Georgia Academy of Science, v. XXII (January), p. 37-40.

Pilkey, O.H. and Goodell, H.G., 1964, Comparison of the composition of fossil and Recent mollusk shells: Geological Society of America Bulletin, v. 75, p. 217-228.

Giles, R.T. and Pilkey, O.H., 1965, Atlantic beach and dune sediments of the southern United States: Journal of Sedimentary Petrology, v. 35(4), p. 900-910.

Pilkey, O.H. and Giles, R.T., 1965, Bottom topography of the Georgia continental shelf: Southeastern Geology, v. 7, p. 15-18.

Stewart, R.A., Pilkey, O.H. and Nelson, B.W., 1965, Sediments of the Northern Arabian Sea: Marine Geology, v. 3, p. 411-427.

Harriss, R.C. and Pilkey, O.H., 1966, Interstitial waters of some deep marine carbonate sediments: Deep Sea Research, v. 13, p. 967-969.

Pilkey, O.H. and Harriss, R.C., 1966, The effect of intertidal environment on the composition of calcareous skeletal material: Limnology and Oceanography, v. 11, no. 3, p. 381-385.

Pilkey, O.H. and Noble, D., 1966, Carbonate and clay mineralogy of the Persian Gulf: Deep Sea Research, v. 13, p. 1-16.

Pilkey, O.H. and Rucker, J.B., 1966, Mineralogy of Tongue of the Ocean sediments: Journal of Marine Research, v. 24, p. 276-285.

Pilkey, O.H., Schnitker, D. and Pevear, D.R., 1966, Oolites on the Georgia continental shelf edge: Journal of Sedimentary Petrology, v. 36(2), p. 462-467.

Pilkey, O.H. and Terlecky, P. M., 1966, Distribution of surface sediments on the Georgia continental shelf, in Pleistocene and Holocene Sediments, Sapelo Island, Georgia and Vicinity: Geological Society of America, Southeastern Section, Field trip #1, p. 28-39.

Harriss, R.C., and Pilkey, O.H., 1966, Temperature and salinity control of the concentration of skeletal Na, Mn, and Fe in *Dendraster excentricus*: Pacific Science, v. XX, no. 2, p. 235-238.

Heezen, B.C., Schneider, E.D., and Pilkey, O.H., 1966, Sediment transport by the Antarctic bottom current on the Bermuda Rise: Nature, v. 211, p. 611-612.

Pevear, D.R., and Pilkey, O.H., 1966, Phosphorite in Georgia continental shelf sediments: Geological Society of America Bulletin, v. 77, p. 849-858.

Pilkey, O.H., and Luternauer, J.L., 1966, North Carolina Frying Pan Phosphate sands: Geo Marine Technology, v. 2, p. 24-25.

Stewart, R.A., and Pilkey, O.H., 1966, Sediments of the Northern Arabian Sea: Washington, D.C., Ocean Surveys Division, U.S. Naval Oceanographic Office (NAVOCEANO) Technical Report 186, 28 p.

Menzies, R.J., Pilkey, O.H., Blackwelder, B.W., Dexter, D., et al., 1966, A submerged reef off North Carolina: Internationale Revue der Gesamten Hydrobiologie, v. 51, no. 3, p. 393-431.

Luternauer, J.L., and Pilkey, O.H., 1967, Phosphorite grains: Their application to the interpretation of North Carolina shelf sedimentation: Marine Geology, v. 5, p. 315-320.

Pilkey, O.H., and Luternauer, J.L., 1967, A North Carolina shelf phosphate deposit of possible commercial interest: Southeastern Geology, v. 8, p. 33-51.

Pilkey, O.H., Morton, R.W., and Luternauer, J.L., 1967, The carbonate fraction of beach and dune sands: Sedimentology, v. 8, p. 311-327.

Cleary, W.J., and Pilkey, O.H., 1968, Sedimentation in Onslow Bay: Southeastern Geology Special Publication No. 1, p. 1-17.

Doyle, L.J., Cleary, W.J., and Pilkey, O.H., 1968, Mica: its use in determining shelf depositional regimes: Marine Geology, v. 6, p. 381-389.

Milliman, J.D., Pilkey, O.H., and Blackwelder, B.W., 1968, Carbonate Sedimentation on

the continental shelf, Cape Hatteras to Cape Romain: Southeastern Geology, v. 9, p. 245-267.

Pilkey, O.H., 1968, Sedimentation processes on the Atlantic Southeastern United States continental shelf: Maritime Sediments, v. 4, no. 2, p. 49-51.

Pilkey, O.H., and Blackwelder, B.W., 1968, Mineralogy of the sand size carbonate fraction of some Recent marine terrigenous and carbonate sediments: Journal of Sedimentary Petrology, v. 38, no. 3, p. 799-810.

Field, M.E., and Pilkey, O.H., 1969, Feldspar in Atlantic continental margin sands off the southeastern United States: Geological Society of America Bulletin, v. 80, p. 2097-2102.

Macintyre, I.G., and Pilkey, O.H., 1969, Tropical reef corals: tolerance of low temperatures on the North Carolina continental shelf: Science, v. 166, p. 374-375.

Macintyre, I.G., and Pilkey, O.H., 1969, Preliminary comments on linear sand-surface features, Onslow Bay, North Carolina continental shelf: Problems in making detailed sea-floor observations: Maritime Sediments, v. 5, p. 26-29.

Newton, J.G., and Pilkey, O.H., 1969, Topography of the continental margin off the Carolinas: Southeastern Geology, v. 10, p. 87-92.

Pilkey, O.H., Blackwelder, B.W., Doyle, L.J., and Estes, E.L., 1969, Environmental significance of the physical attributes of calcareous sedimentary particles: Transactions of the Gulf Coast Association of Geological Societies, v. XIX, p. 113-114.

Pilkey, O.H, Blackwelder, B.W., Doyle, L.J., Estes, E.L., and Terlecky, P.M., 1969, Aspects of carbonate sedimentation on the Atlantic continental shelf off the southern United States: Journal of Sedimentary Petrology, v. 39, no. 2, p. 744-768.

Ragland, P.C., Pilkey, O.H., and Blackwelder, B.W., 1969, Comparison of the Sr/Ca ratio of fossil and Recent mollusc shells: Nature, v. 224, no. 5225, p. 1223-1224.

Field, M.E., and Pilkey, O.H., 1970, Lithification of deep sea sediments by pyrite: Nature, v. 226, no. 5248, p. 836-837.

Pilkey, O.H., and Bornhold, B.D., 1970, Gold distribution on the Carolina continental margin -- a preliminary report: U.S. Geological Survey Professional Paper 700-C, p. C30-C34.

Judd, J.B., Smith, W.C., and Pilkey, O.H., 1970, The environmental significance of ironstained quartz grains on the southeastern United States Atlantic Shelf: Marine Geology,

v. 8, p. 355-362.

Bornhold, B.D., and Pilkey, O.H., 1971, Bioclastic turbidite sedimentation in Columbus Basin, Bahamas: Geological Society of America Bulletin, v. 82, p. 1341-1354.

Field, M.E., and Pilkey, O.H., 1971, Deposition of deep-sea sands: Comparison of two areas of the Carolina continental rise: Journal of Sedimentary Petrology, v. 41, no. 2, p. 526-536.

Froelich, P., Golden, B., and Pilkey, O.H., 1971, Organic carbon in sediments of the North Carolina continental rise: Southeastern Geology, v. 13, no. 2, p. 91-97.

Kier, J.S., and Pilkey, O.H., 1971, The influence of sea level changes on sediment carbonate mineralogy, Tongue of the Ocean, Bahamas: Marine Geology, v. 11, p. 189-200.

Pilkey, O.H, Macintyre, I.G., and Uchupi, E., 1971, Shallow structures: shelf edge of continental margin between Cape Hatteras and Cape Fear, North Carolina: American Association of Petroleum Geologists Bulletin, v. 55, no. 1, p. 110-115.

Rodolfo, K.A., Buss, B.A., and Pilkey, O.H., 1971, Suspended sediment increase due to Hurricane Gerda in continental shelf waters off Cape Lookout, North Carolina: Journal of Sedimentary Petrology, v. 41, no. 4, p. 1121-1125.

Milliman, J.D., Pilkey, O.H., and Ross, D.A., 1972, Sediments of the continental margin off the eastern United States: Geological Society of America Bulletin, v. 83, p. 1315-1334.

Molnia, B.F., and Pilkey, O.H., 1972, Origin and distribution of calcareous fines on the Carolina continental shelf: Sedimentology, v. 18, p. 293-310.

Pilkey, O.H., 1972, Barium: Element and geochemistry: in Fairbridge (ed.), The Encyclopedia of Geochemistry and Environmental Sciences: Van Nostrand Reinhold Co., New York, p. 62-63.

Pilkey, O.H., 1972, Calcium: Element and geochemistry: in Fairbridge (ed.), The Encyclopedia of Geochemistry and Environmental Sciences: Van Nostrand Reinhold Co., New York, p. 100-103.

Pilkey, O.H., and Field, M.E., 1972, Lower continental rise east of the middle Atlantic states: predominant sediment dispersal perpendicular to isobaths: discussion: Geological Society of America Bulletin, v. 83, p. 3537-3538.

Pilkey, O.H., and Field, M.E., 1972, Onshore transportation of continental shelf sediment: Atlantic southeastern United States: in Swift, Duane, and Pilkey (eds.), Shelf Sediment Transport: Dowden, Hutchinson and Ross, Inc., Stroudsburg, Pa., p. 429-446.

Polifka, J., Pilkey, O.H., Kier, J.S., and Atwood, D., 1972, Sea floor compositional changes in calcareous skeletal material: Nature, v. 240, p. 89-90.

Watkins, J.A., and Pilkey, O.H., 1972, Le Sable des Plages Tunisiennes: Note du Service Geologique, #39, Republique Tunisienne, Ministere de l'Economie Nationale, Direction des Mines et de l'Energie, 41 p.

Blackwelder, P.L., and Pilkey, O.H., 1972, Electron Microscopy of Quartz Grain Surface Textures: The U.S. Eastern Atlantic Continental Margin. Journal of Sedimentary Petrology, v. 42, no. 3, p. 520-526.

Pilkey, O.H., 1974, Let the Lighthouse Fall In: The High School Journal, v. 8, p. 1-10.

Doyle, L.J., Pilkey, O.H., Hayward, G.L., and Arbogast, J.S., 1975, Sedimentation on the Northeastern Continental Slope of the United States: Proceedings of IXth International Congress of Sedimentology, Theme 6, p. 51-56.

Fritz, S.J., and Pilkey, O.H., 1975, Distinguishing bottom and turbidity current coarse layers on the Continental Rise: Journal of Sedimentary Petrology, v. 45, p. 57-62.

Klasik, J.A., and Pilkey, O.H., 1975, Processes of sedimentation on the Atlantic Continental Rise off the Southeastern U.S.: Marine Geology, v. 19, p. 69-89.

Morton, R.A., Galvin, C.J., Jr., Howard, J.D., Moseley, J.C., Pilkey, O.H., et al., 1975, Impact of Barrier-Island Development – Geologic Problems and Practical Solutions: Report of the Committee on Environment and Public Policy, The Geological Society of America, 8 p.

Bennetts, K.R.W., and Pilkey, O.H., 1976, Characteristics of three turbidites, Hispaniola-Caicos Basin: Geological Society of America Bulletin, v. 87, p. 1291-1300.

Harbridge, W., Pilkey, O.H., Whaling, P., and Swetland, P., 1976, Sedimentation in the Lake of Tunis: a lagoon strongly influenced by man: Environmental Geology, v. 1, p. 215-225.

Mixon, R., and Pilkey, O.H., 1976, Geology of the Cape Lookout Quadrangle: U.S. Geological Survey Professional Paper 859.

Schneidermann, N., Pilkey, O.H., and Saunders, C. 1976, Sedimentation on the Puerto Rico insular shelf: Journal of Sedimentary Petrology, v. 46, p. 167-173.

Seiglie, G.A., Froelich, P.N., and Pilkey, O.H., 1976, Deep-sea sediments of Navidad Basin: correlation of sand layers: Deep-Sea Research, v. 23, p. 89-101.

Watkins, J. A., Pilkey, O.H., and Cleary, W. J., 1977, Petrology and origin of beach sands of Tunisia: Egyptian Journal of Geology, v. 21, no. 2, p. 159-176. Cleary, W.J., and Pilkey, O.H., 1977, Morphology and sediments of three ocean basin entry points, Hatteras Abyssal Plain: Journal of Sedimentary Petrology, v. 47, no. 3, p. 1157-1170.

Ditty, P.S., Harmon, C.J., Pilkey, O.H., Ball, M.M., and Richardson, E.S., 1977, Mixed terrigenous-carbonate sedimentation in the Hispaniola-Caicos turbidite basin: Marine Geology, v. 24, p. 1-20.

Macintyre, I.G., Pilkey, O.H., and Stuckenrath, R., 1978, Relict oysters on the United States Atlantic Continental Shelf: A reconsideration of their usefulness in understanding late Quaternary sea-level history: Geological Society of America Bulletin, v. 89, p. 277-282.

Pilkey, O.H., Trumbull, J.V.A., and Bush, D.M., 1978, Equilibrium shelf sedimentation, Rio de La Plata Shelf, Puerto Rico: Journal of Sedimentary Petrology, v. 48, no. 2, p. 389-400.

Thornton, S.E., Pilkey, O.H., and Lynts, G.W., 1978, A lagoonal crustose coralline algal micro-ridge: Bahiret el Bibane, Tunisia: Journal of Sedimentary Petrology, v. 48, no. 3, p. 743-750.

Pilkey, S., and Pilkey, O., 1978, Research Vessel *Eastward* – Fifteen Years of Service: The Office of University Publications, Duke University, 48 p.

Blackwelder, B.W., Pilkey, O.H., and Howard, J. D., 1979, Late Wisconsinan sea levels on the southeast U.S. Atlantic shelf based on in-place shoreline indicators: Science, v. 204, p. 618-620.

Chu, F.H., Pilkey, W.D., and Pilkey, O.H., 1979, An Analytical Study of Turbidity Current Steady Flow: Marine Geology, v. 33, p. 205-220.

Doyle, L.J., Pilkey, O.H., and Woo, C.C., 1979, Sedimentation on the eastern United States continental slope; in Doyle, L.J. and Pilkey, O.H. (eds.), Geology of continental slopes: Society of Economic Paleontologists and Mineralogists Special Publication No. 27, p. 119-129.

Elmore, R.D., Pilkey, O.H., Cleary, W.J., and Curran, H.A., 1979, Black Shell turbidite, Hatteras abyssal Plain, Western North Atlantic Ocean: Geological Society of America Bulletin, v. 90, p. 1165-1176.

Macintyre, I.G., Pilkey, O.H., and Stuckenrath, R., 1979, Relict oysters on the United States Atlantic continental shelf: A reconsideration of their usefulness in understanding late Quaternary sea-level history: Reply (to Discussion by K.O. Emery and A.S. Merrill):

Geological Society of America Bulletin, v. 90, pt. 1, p. 689-694.

Pilkey, O.H., Fierman, E.I., and Trumbull, J.V.A., 1979, Relationship between physical condition of the carbonate fraction and sediment environments, Northern Puerto Rico Shelf: Sedimentary Geology, v. 24, p. 283-290.

Ragland, P.C., Pilkey, O.H., and Blackwelder, B.W., 1979, Diagenetic changes in the elemental composition of unrecrystallized mollusk shells: Chemical Geology, v. 25, p. 123-134.

Thornton, S.E., Pilkey, O.H., Doyle, L.J., and Whaling, P.J., 1980, Holocene evolution of a coastal lagoon, Lake of Tunis, Tunisia: Sedimentology, v. 27, p. 79-91.

Chu, F.H., Pilkey, O.H., and Pilkey, W.D., 1980, A turbidity current model: Civil Engineering in the Oceans IV, p. 416-432.

Pilkey, O.H., Locker, S.D., and Cleary, W.J., 1980, Comparison of sand-layer geometry on flat floors of 10 modern depositional basins: American Association of Petroleum Geologists Bulletin, v. 64, no. 6, p. 841-856.

Pilkey, O.H., and Neal, W. J., 1980, Barrier island hazard mapping: Oceanus, v. 23, no. 4, p. 38-46.

Pilkey, O.H., 1980, The Barrier Islands: Outdoor America, v. 45, no. 4, p. 6-9.

Leonard, J.E., Cameron, B., Pilkey, O.H., and Friedman, G.M., 1981, Evaluation of cold-water carbonates as a possible paleoclimatic indicator: Sedimentary Geology, v. 28, p. 1-28.

Park, Y.A., and Pilkey, O.H., 1981, Detrital Mica: Environmental Significance of roundness and grain surface textures: Journal of Sedimentary Petrology, v. 51, no. 1, p. 113-120.

Pilkey, O.H., 1981, Geologists, engineers and a rising sea level: in Leonard, J.E. and Maurmeyer, E. (eds.), Coastal and Nearshore Processes of the Western Atlantic: Northeastern Geology, v. 3, nos. 3 & 4, p. 150-158.

Pilkey, O.H., 1981, Geologists, Engineers, Barrier Islands and the Rising Sea Level: Duke University Letters #17 (Jan. 28), Durham, N.C.

Pilkey, O.H., 1981, America's beaches: an endangered species? Sea Grant Today, v. 11, no. 6, p. 14-16.

Neal, W.J., Pilkey, O.H., and Imperato, P.O., 1981, Oregon Inlet: Outdoor America, p. 12-14.

Pilkey, O.H., and Evans, M., 1981, Rising Sea, Shifting Shores: in Reische, D., and Jackson, T.C. (eds.), Coast Alert: Scientists Speak Out: Friends of the Earth, Coast Alliance, San Francisco, CA, p. 14-47.

Pilkey, O.H., and Myers, C., 1981, Barrier Islands -- Our Most Dynamic Real Estate: Earth Science, (Fall), v. 34, p. 20-23.

Pilkey, O.H., Blackwelder, B.W., Knebel, H., and Ayers, M.W., 1981, The Georgia embayment continental shelf: stratigraphy of a submergence: Geological Society of America Bulletin, Part I, v. 92, p. 52-63.

Pilkey, O.H., and 10 others, 1981, Saving the American Beach: A position paper by concerned coastal geologists: Privately circulated to the media and signed by two-thirds of the coastal geology community. Paper was reprinted or discussed in *Science Magazine, Geotimes,* and *Shore and Beach*.

Pilkey, O.H., and Wilcox, M., 1981, Citation analysis of principal sedimentary journals: Journal of Sedimentary Petrology, v. 50, p. 1044-1045.

Blackwelder, B.W., Macintyre, I.G., and Pilkey, O.H., 1982, Geology of Continental Shelf, Onslow Bay, North Carolina, as revealed by Submarine Outcrops: American Association of Petroleum Geologists Bulletin, v. 66, p. 44-56.

Pilkey, O.H., 1982, Saving the American Beach: Impact of the Position Paper: in Rukavina, N.A. (ed.): Proceedings, Third Workshop on Great Lakes Coastal Erosion and Sedimentation: Canada Centre for Inland Waters, Burlington, Ontario, Nov. 1-2, 1982, p. 7-10.

Pilkey, O.H., 1982, Shoreline Research: in Brewer, P. (ed.), Oceanography: The Present and the Future, Woods Hole 50th Anniversary Volume: Springer-Verlag, New York, p. 87-100.

Mazzullo, J., Ehrlich, R., and Pilkey, O.H., 1982, Local and Distal origin of sands in the Hatteras Abyssal Plain: Marine Geology, v. 48, p. 75-88.

Pilkey, O.H., 1982, Indian Estuaries need study: Geotimes, p. 21-23.

Grove, K.A., Pilkey, O.H., and Trumbull, J.V.A., 1982, Mud transportation on a steep shelf, Rio de la Plata shelf, Puerto Rico: Geo-Marine Letters, v. 2; p. 71-75.

Pilkey, O.H., and Evans, M., 1982, Rising Seas, Shifting Shores: Trying to Stop the Sea: Oceans, v. 15, no. 1, p. 65-69.

Pilkey, O.H., and Myers, C., 1982, Man vs. Barrier Islands: Earth Science, v. 35, p.

15-19.

Pilkey, O.H., and Neal, W.J., 1982, The Folly of Stabilizing Oregon Inlet: Southern Exposure, v. X, p. 10-12.

Pilkey, O.H., and Neal, W.J., 1983, Man vs. the sea at the shore: in Ragotzkie, R.A. (ed.), Man and the Marine Environment: CRC Press, Boca Raton, Florida, p. 101-118.

Pilkey, O.H., 1983, The eroding shores and the disappearing beach: Geophysics: The Leading Edge of Exploration; April, p. 50-53.

Pilkey, O.H., 1983, Preserving our beaches -- a reply: Sea Grant Today, v. 13, no. 3, p. 8.

Pilkey, O.H., 1983, Editorial: A look back: Journal of Sedimentary Petrology, v. 53, p. 351-352.

Pilkey, O.H., and Lincoln, R., 1984, Insular shelf heavy mineral partitioning in Northern Puerto Rico: Marine Mining, v. 4, no. 4, p. 403-414.

Dias, J.M.A., Pilkey, O.H., and Heilweil, V.M., 1984, Detrital Mica: Environmental significance in North Portugal continental shelf sediments: Comunicacoes dos Servicos Geologicos de Portugal, t. 70, Fasc. 1, p. 93-101.

Pilkey, O.H., Bush, D.M., and Rodriquez, R.W., 1984, Storm sedimentation, North Shelf of Puerto Rico: in Park, Y.A., Pilkey, O.H. and Kim, S.W. (eds.), Marine Geology and Physical Processes of the Yellow Sea: Proceedings of Korea-U.S. Seminar and Workshop, Seoul, Korea, p. 242-259.

Cleary, W.T., Pilkey, O.H., and Nelson, J.C., 1985, Wilmington Fan, Atlantic Ocean: in Bouma, A.H., Barnes, N.E., Normark, W.R. (eds.), Submarine Fans and Related Turbidite Sequences: Bouma, A.H. (series ed.), Frontiers in Sedimentary Geology: Springer-Verlag, New York, p. 157-164.

Howard, J.D., Kaufman, W., and Pilkey, O.H., 1985, National Strategy for Beach Preservation: Position paper #2 co-authored by 10 other specialists, Second Skidaway Institute of Oceanography Conference on America's Eroding Shoreline, privately circulated, 11 p.; also 1985, *Journal of Coastal Research*, v. 1, no. 4, p. 404-411.

Pilkey, W.D., and Pilkey, O.H, 1985, Are we ready to consider shoreline buildings as being expendable? in McGrath, J. (ed.), California's Battered Coast: California Coastal Commission, p. 243-250.

Pilkey, O.H., 1985, Living with coastal hazards: in Striking a Balance: Reflections on Ten Years of Managing the North Carolina Coast: North Carolina Department of Natural Resources and Community Development, Division of Coastal Management, p. 20-24. Pilkey, O.H., and Cleary, W.J., 1986, Turbidite sedimentation in the Northwestern Atlantic Ocean Basin: in Vogt, P.R. and Tucholke, B.E. (eds.), The Geology of North America, Vol. M, The Western North Atlantic Region: Geological Society of America, (Chapter 26), p. 437-450.

Pilkey, O.H., and Curran, H.A., 1986, Molluscan Shell Transport: You Ain't Seen Nothin' Yet: Palaios, v. 1, p. 197.

Katz, S.D., and Pilkey, O.H., 1987, An analysis of detrital mica grain morphology in two North Carolina fluvial networks: in Marshall, J.R. (ed.), Clastic Particles: Scanning Electron Microscopy and Shape Analysis of Sedimentary and Volcanic Clasts: Van Nostrand Reinhold, New York, (Chapter 6), p. 328-339.

Pilkey, O.H., 1987, Sedimentology of basin plains: in Weaver, P.P.E. and Thomson, J. (eds.), Geology and Geochemistry of Abyssal Plains: Geological Society (London), Special Publication #31, p. 1-12.

Pilkey, O.H., 1987, A time for retreat: in Platt, R.H., Pelezarki, S.C., Burbank, B.K.R. (eds.), Cities On The Beach: Management Issues of Developed Coastal Barriers: University of Chicago, Department of Geography, Research Paper #224, p. 275-280.

Pilkey, O.H., and Clayton, T.D., 1987, Beach replenishment: The National Solution? Coastal Zone 87, American Society of Civil Engineers, p. 1408-1420.

Pilkey, O.H., and Neal, W.J., 1987, Living with the Shore -- Hazard Mitigation through Education: Coastal Zone 87, American Society of Civil Engineers, p. 4794-4808.

Pilkey, O.H., Bush, D.M., and Rodriquez, R.W., 1987, Bottom sediment types of the Northern Insular Shelf of Puerto Rico, Punta Penon to Punta Salinas: U.S. Geological Survey, Miscellaneous Investigations Series, **Map** I-1861.

Pilkey, O.H., Bush, D.M., and Rodriquez, R.W., 1987, Carbonate-terrigenous sedimentation on the North Puerto Rico Shelf: in Doyle, L.J. (ed.), Mixed Carbonate-Non-Carbonate Depositional Environments: American Association of Petroleum Geologists Memoir, p. 231-250.

Prince, C.M., Elmore, R.D., Ehrlich, R., and Pilkey, O.H., 1987, Aerial and Lateral Changes in a major trailing margin Turbidite -- The Black Shell Turbidite: Geo-Marine Letters, v. 7, p. 103-112.

Pilkey, O.H., 1987, Don't stop the ocean, move the light: Washington Post, Outpost Section, Jan. 4, p. c-3.

Pilkey, O., 1987, Move It or Lose It: Oceans, v. 20, no. 2, p. 23-56.

Pilkey, O.H., and Davis, T.W., 1987, An analysis of Coastal Recession Models: North Carolina Coast, in Nummedal, D., Pilkey, O.H., and Howard, J.D. (eds.), Sea Level Rise and Coastal Evolution: The Society of Economic Paleontologists and Mineralogists (SEPM) Special Publication #41, p. 59-68.

Martinez, J.O. and Pilkey, O., 1987, Estado actual y perspectivas de solucion referente a la erosion de las playas de Cartagena. Ingeominas, Direccion Regional Cartagena: Republica de Colombia Ministerio de Minas y Energia, Instituto Nacional de investigaciones geologico-mineras, 22 p.

Leonard, L.A., Pilkey, O.H., Jr., and Clayton, T.D., 1988, An assessment of beach replenishment parameters, in Tait, L.S. (ed.), Beach Preservation Technology 88: Problems and Advancements in Beach Nourishment, Florida State & Beach Preservation Association, Tallahassee, FL, p. 115-124.

Pilkey, O.H., 1988, Basin Plains: Giant Sedimentation events: in Clifton, H.E. (ed.), Cataclysmic Events: Geological Society of America, Special Paper 229, p. 93-100.

Pilkey, O.H., 1988, A "Thumbnail Method" for Beach Communities: Estimation of Long-Term Beach Replenishment Requirements: Shore and Beach, v. 56, p. 23-31.

Pilkey, O.H., and Neal, W.J., 1988, Coastal Geologic Hazards: in Sheridan, R.E. and Grow, J.A. (eds.), The Geology of North America, v. 1-2, The Atlantic Continental Margin, U.S.: Geological Society of America, DNAG volume, p. 549-556.

Pilkey, O.H., Neal, W.J., and Clayton, T.D., 1988, Policy conflicts in the management of retreating shorelines: NRC, Water Board Colloquium, Future of Great Lakes Shorelines: National Academy of Sciences Press, p. 59-75.

Pilkey, O.H., and Wright, H.L., 1988, Seawalls versus beaches: in Kraus, N.C. and

Pilkey, O.H. (eds.), The Effects of Seawalls on the Beach, Journal of Coastal Research Special Issue #4, p. 41-64.

Dean, R.G., Pilkey, O.H., Jr., Houston, J.R., 1988, Eroding Shorelines Impose Costly Choices. Geotimes, v. 33, no. 5, p. 9-14.

Thieler, E.R., Bush, D.M., and Pilkey, O.H., Jr., 1989, Shoreline response to hurricane Gilbert: Lessons for coastal management, in Magoon, O.T., et al. (eds.), Coastal Zone '89, Proceedings of the Sixth Symposium on Coastal and Ocean Management. New York: American Society of Civil Engineers, p. 765-775.

Wright, H.L., III, and Pilkey, O.H., Jr., 1989, The effects of hard stabilization upon dry beach width, in Magoon, O.T., et al. (eds.), Coastal Zone '89. American Society of Civil

Engineers, New York, p. 776-790.

Leonard, L.A., Dixon, K.L., and Pilkey, O.H., 1989, U.S. beach replenishment experience: A comparison of the Atlantic, Pacific and Gulf coasts: in Magoon, O.T., et al. (eds.), Coastal Zone '89. American Society of Civil Engineers, New York, p. 1994-2005.

Dixon, K.L., and Pilkey, O.H., Jr., 1989, Beach replenishment along the U.S. coast of the Gulf of Mexico, in Magoon, O.T., et al. (eds.), Coastal Zone '89. American Society of Civil Engineers, New York, p. 2007-2020.

Pilkey, O.H., 1989, The engineering of sand: Journal of Geological Education, v. 37, p. 308-311.

Pilkey, O.H., and Clayton, T.D., 1989, Summary of beach replenishment experience on U.S. East Coast barrier islands: Journal of Coastal Research, v. 5, p. 147-159.

Pilkey, O.H., Heron, D., et al., 1989, The sedimentology of three Tunisian lagoons: in Ward, L. and Ashley, G. (eds.), Lagoons: Marine Geology, v. 88, p. 285-301.

Pilkey, O.H., Jr., Morton, R.A., Kelley, J.T., and Penland, S., 1989, Coastal Land Loss, Vol. II: American Geophysical Union, Washington, D.C., 195 p.

Pilkey, O.H., Neal, W.J., Monteiro, J.H., and Dias, J.M.A., 1989, Algarve barrier islands: a non coastal plain system: Journal of Coastal Research, v. 5, p. 239-261.

Pilkey, O.H. and Zabawa, C., 1989, Shoreline Erosion in the Upper Chesapeake Bay: Field Trip Guidebook T233, 28th International Geological Congress, American Geophysical Union, Washington, D.C., 13 p.

Hall, M.J., Young, R.S., Thieler, E.R., Priddy, R.D., and Pilkey, O.H., 1990, Shoreline response to Hurricane Hugo: Journal of Coastal Research, v. 6, p. 211-221. Leonard, L.A., Clayton, T.D., and Pilkey, O.H., Jr., 1990, An analysis of replenished beach design parameters on U.S. East Coast barrier islands. Journal of Coastal Research, v. 6, p. 15-36.

Leonard, L.A., Dixon, K.L., and Pilkey, O.H., Jr., 1990, A comparison of beach replenishment on the U.S. Atlantic, Pacific, and Gulf coasts, in Schwartz, M.L. and Bird, E.C.F. (eds.), Artificial Beaches: Journal of Coastal Research Special Issue #6, p. 127-140.

Pilkey, O.H., 1990, A time to look back at beach replenishment: Editorial: Journal of Coastal Research, v. 6, iii-vii.

Pilkey, O.H., and Leonard, L.A., 1990, Reply to the Per Bruun discussion: Journal of

Coastal Research, v. 6, p. 1059.

Pilkey, O.H., and Leonard, L.A., 1990, Reply to the Houston discussion: Journal of Coastal Research, v. 6, p. 1047-1057.

Pilkey, O.H., and Leonard, L.A., 1990, Reply to the Smith discussion: Journal of Coastal Research, v. 6, p. 1061-1062.

Martinez, J.O., Pilkey, O.H., and Neal, W.J., 1990, Rapid formation of large coastal sand bodies after emplacement of Magdalena River Jetties, Northern Colombia: Environmental Geology and Water Sciences, v. 16, no. 3, p. 187-194.

Pilkey, O.H., 1990, Barrier Islands: Sea Frontiers, v. 36, December, p. 30-36.

Pilkey, O.H., 1990, Truth in Science: Vertices, p. 7 and 38.

Pilkey, O.H., and Bush, D.M., 1990, Eroding shorelines: No simple solution: Sea Wind, v. 4, p. 3-6.

Dixon, K.L., and Pilkey, O.H., Jr., 1991, Summary of beach replenishment experience on the U.S. Gulf of Mexico shoreline: Journal of Coastal Research, v. 7, p. 249-256.

Hall, M.J. and Pilkey, O.H., 1991, Effects of Hard Stabilization on Dry Beach Width for New Jersey: Journal of Coastal Research, v. 7, no. 3, p. 771-785.

Pilkey, O.H., Hokanson, C., 1991, A Proposed Classification of Basin Plains, in Shepherd (ed.), From Shoreline to Abyss: SEPM Special Publication no. 46, p. 249-257.

Pilkey, O.H., 1991, Coastal Erosion: Episodes, v. 14, p. 46-51.

Pilkey, O.H., 1991, A tale of 6 societies: Overview: The Florida Planning and Zoning Association.

Pilkey, O.H., and Leonard, L.A., 1991, Reply to Houston (again): Journal of Coastal Research, v. 7, p. 879-894.

Pilkey, O.H. and Neal, W.J., 1991, Realism in Response to Shoreline Erosion Problems: A Call for a New World Order. Proceedings of the International Meeting (Nantes, France): Coastal Protection, International Experience and Prospects, Special Issue, 10 p.

Neal, W.J. and Pilkey, O.H., 1991, Beach Mining: economic development/ environmental crisis: Sea Wind, v. 5, p. 3-8.

Pilkey, O.H., 1992, Another view of beachfill performance: Shore and Beach (April), p. 20-25.

Pilkey, O.H. and Neal, W.J., 1992, Save beaches, not buildings: Issues in Science and Technology (Spring), p. 36-41.

Pilkey, O.H., Jr. and Thieler, E.R., 1992, Erosion of the United States shoreline: SEPM Special Publication #48 (Quaternary Coasts of the United States; Marine and Lacustrine Systems), p. 3-7.

Thieler, E.R., Young, R.S., and Pilkey, O.H., 1992, Discussion of: "Boundary conditions and long-term shoreline change rates for the southern Virginia ocean coastline: Discussion:" Shore and Beach, October, p. 29-34.

Pilkey, O.H., 1993, Can we predict the behavior of sand in a time and volume framework of use to human kind? Editorial: Journal of Coastal Research, v. 9, p. iii-iv.

Pilkey, O.H., Young, R.S., Riggs, S.R., Smith, A.W.S., Wu, H., and Pilkey, W.D., 1993, The concept of shoreface profile of equilibrium: A critical review: Journal of Coastal Research, v. 9, p. 255-278.

Pilkey, O.H., et al., 1993, Reply to discussion of shoreface profile of equilibrium papers by R. Dubois: Journal of Coastal Research, v. 9, p. 1146-1148.

Pilkey, O.H., 1994, Consulting and Academia -- The Enemy Within? Geotimes (September), p. 4.

Pilkey, O.H., Young, R.S., Bush, D.M., Thieler, E.R., 1994, Predicting the Behavior of Beaches: Alternatives to Models: Littoral, v. 94, p. 53-60.

Pilkey, O.H., 1994, Mathematical Modeling of Beach Behavior Doesn't Work: Journal of Geological Education, v. 42, p. 358-361.

Bush, D.M., Pilkey, O.H., 1995, Mitigation of hurricane property damage on barrier islands: a geological view: Journal of Coastal Research, Special Issue #12, Coastal Hazards, p. 311-325.

Young, R.S., Pilkey, O.H., Bush, D.M., and Thieler, E.R., 1995, A discussion of the generalized model for simulating shoreline change (GENESIS): Journal of Coastal Research, v. 11, p. 875-886.

Martinez, J.O., Gonzalez, J.L., Pilkey, O.H., and Neal, W.J., 1995, Tropical Barrier Islands of Colombia's Pacific Coast: Journal of Coastal Research, v. 11, no. 2, p. 432-453.

Pilkey, O.H., 1995, The Fox Guarding the Hen House (Editorial): Journal of Coastal Research, v. 11, iii-v.

Schneider, J., Shultz, S., and Pilkey, O., 1995, Late Quaternary Oyster Shells and Sea Level History, Inner Shelf, NW Gulf of Mexico: Journal of Coastal Research, v. 11, p. 664-674.

Pilkey, O.H. and Dixon, K., 1995, Truths of the Shoreline: Bulletin of the American Littoral Society, v. 22, p. 5-11.

Pilkey, O.H. and Thieler, E.R., 1996, Mathematical Modeling in Coastal Geology: Geotimes (December), p. 5.

Pilkey, O.H., Young, R.S., Thieler, E.R., Jacobs, B.S., Katuna, M.P., Lennon, G., and Moeller, M.E., 1996, Reply to: Houston, J.R., 1996. Discussion of: Young, R.S., Pilkey,

O.H., Bush, D.M., and Thieler, E.R., 1995, A Discussion of the Generalized Model for Simulating Shoreline Change (GENESIS), *Journal of Coastal Research* 11(3), p. 875-886. Same volume: Journal of Coastal Research, v. 12(4), p. 1038-1043.

Young, R.S., Bush, D.M., Pilkey, O.H., Neal, W.J., 1996, Evaluating shoreline change and associated risk from coastal hazards: an inexpensive qualitative approach, in Berger, A.T. and W.J. Iams (eds.), Geoindicators Assessing Rapid Environmental Changes in Earth Systems: A.A. Balkema, Rotterdam, Netherlands, p. 193-206.

Valverde, H., and Pilkey, O.H., 1996, Shoreline Stabilization in Onslow Bay: Carolina Geological Society Field-trip Guidebook, pp. 71-75.

Cleary, W.J., and Pilkey, O.H., 1996, Environmental Coastal Geology: Cape Lookout to Cape Fear, North Carolina: Regional Overview: Carolina Geological Society Field-trip Guidebook, p. 87-127.

Pilkey, O.H., 1997, Reply to Hillyer, T.M. and Stakhiv, E.Z., 1997, Discussion of:

Pilkey, O.H., 1996. The Fox Guarding the Hen House (editorial), *Journal of Coastal Research*, v. 11(3), iii-v: Journal of Coastal Research, v. 13(1), p. 265-267.

Pilkey, O.H., and Dixon, K.L., 1997, Review or Rebuttal? A Response to "Review of the Book The Corps and the Shore by O. Pilkey and K. Dixon" by James R. Houston and Robert Dean: Shore and Beach, January, p. 32-36.

Libbey, L.K., McQuarrie, M.E., Pilkey, O.H., et al., 1998, Another view of the maturity of our science: Shore and Beach, v. 66(4), p. 2-4.

Martinez, J.O., Gonzalez, J.L., Pilkey, O.H., Neal, W.J., 1998, Short-Term Evolution of Four Macrotidal, Leading-Edge Pacific Barrier Islands, Colombia, S.A.: Journal of Coastal Research, Special Issue #26, p. 208-209.

Stutz, M.L., Smith, A.W. S., and Pilkey, O.H., 1998, Differing mechanisms of wave energy dissipation in the wave shoaling zone, surf zone, and swash zone: Journal of Coastal Research, Special Issue #26, p. 214-218.

Trembanis, A.C., Valverde, H.R., Pilkey, O.H., 1998, Comparison of Beach Nourishment Along the U.S. Atlantic, Great Lakes, Gulf of Mexico and New England Shorelines: Journal of Coastal Research, Special Issue #26, p. 246-251.

McQuarrie, M.E., Pilkey, O.H., 1998, Evaluation of Alternative or Non-traditional Shoreline Stabilization Devices: Journal of Coastal Research, Special Issue #26, p. 269-272.

Haddad, T.C., and Pilkey, O.H., 1998, Summary of the New England beach nourishment experience (1935-1996): Journal of Coastal Research, v. 14, no. 4, p. 1395-1404.

Trembanis, A.C., and Pilkey, O.H., 1998, Summary of beach nourishment along the U.S. Gulf of Mexico shoreline: Journal of Coastal Research, v. 14, no. 2, p. 407-417.

Stutz, M.L., and Pilkey, O.H., 1999, Discussion of: Wang, P., N.C. Kraus, and R.A. Davis: Total Longshore Sediment Transport Rate in the Surf Zone: Field Measurements and Empirical Predictions: *Journal of Coastal Research*, 14(1), 269-282: Journal of Coastal Research, v. 15(1), p. 272-274.

Pilkey, O.H., Thieler, E.R., Young, R.S., Bush, D.M., 1999, Reply to: Houston, J.R., Rejoinder to: Pilkey, O.H., Young, R.S., Thieler, E.R., Jacobs, B.S., Katuna, M.P.,

Lennon, G., and Moeller, M.R., 1996. Reply to Houston, J.R., A discussion of the Generalized Model for Simulating Shoreline Change (GENESIS), *Journal of Coastal Research*, 12(4), 1044-1050; *Ibid.*, 14(3), 1170-1173. Journal of Coastal Research, v. 15(1), p. 277-279.

Valverde, H.R., Trembanis, A.C., and Pilkey, O.H., 1999, Summary of Beach Nourishment Episodes on the U.S. East Coast Barrier Islands: Journal of Coastal Research, v. 15, no. 4, p. 1100-1118.

Bush, D.M., Neal, W.J., Young, R.S., and Pilkey, O.H., 1999, Utilization of Geoindicators for Rapid Assessment of Coastal-hazard Risk and Mitigation: Ocean and Coastal Management, v. 42, no. 8, p. 647-670.

Pilkey, O.H., Bush, D.M., and Neal, W.J., 1999, Storms and the Coast, in Pielke, R.A., Jr., and Pielke, R.A., Sr. (Eds.), Storms: Routledge Publishing, p. x-x.

Pilkey, O.H., Bush, D.M., and Neal, W.J., 1999, Lessons from Lighthouses: Shifting Sands, Coastal Management Strategies, and the Cape Hatteras Lighthouse Controversy,

in Schneiderman, J. (ed.), The Earth Around Us, p. 198-220.

Trembanis, A.C., Pilkey, O.H., and Valverde, H.R., 1999, Comparison of beach nourishment along the U.S. Atlantic, Great Lakes, Gulf of Mexico, and New England shorelines: Coastal Management, v. 27, p. 329-340.

Thieler, E.R., Pilkey, O.H., Young, R.S., Bush, D.M., and Chai, F., 2000, The use of mathematical models to predict beach behavior for coastal engineering: a critical review: Journal of Coastal Research, v. 16(1), p. 48-70.

Martinez, J.O., Gonzalez, J.L., Pilkey, O.H., and Neal, W.J., 2000, Barrier island evolution on the subsiding Central Pacific Coast, Colombia, South America: Journal of Coastal Research, v. 16, no. 3, p. 663-674.

Pilkey, O.H. and Stutz, M. 2000, Seawalls and Sandbags: Geotimes (Dec.), p. 26-27.

Pilkey, O.H., 2000, What you know can hurt you: Predicting the behavior of nourished beaches: in Sarewitz, D., Pielke, R.A., Jr., Byerly, R., Jr. (eds.), Prediction: Science, Decision Making, and the Future of Nature: Island Press, Washington, D.C., p. 159–184.

Pilkey, O.H., 2000, Geologists, Engineers and a rising sea level: in Goldfarb, T. (ed.), Notable Selections in Environmental Studies: Dushkin/McGraw Hill, p. 90–102.

Thieler, E.R., Pilkey, O.H., Cleary, W.J., and Schwab, W.C., 2001, Modern sedimentation on the shoreface and inner continental shelf at Wrightsville Beach, North Carolina, U.S.A.: Journal of Sedimentary Research, v. 71, no. 6, p. 958-970.

Pilkey, O.H., and Hume, T, 2001, The Shoreline Erosion Problem: Lessons from the Past: Water and Atmosphere: National Institute of Water and Atmospheric Research (NIWA), New Zealand, p. 22–24.

Stutz, M.L., and Pilkey, O.H., 2001, A review of global barrier island distribution: ICS 2000 Proceedings: Journal of Coastal Research Special Issue 34, p. 15-22.

Barnhardt, W.A., Gonzalez, R., Kelley, J.T., Neal, W.J., Pilkey, O.H., et al., 2002, Geologic evidence for the incorporation of flood tidal deltas at Tavira Island, southern Portugal: ICS 2002 Proceedings: Journal of Coastal Research Special Issue 36, p. 28-36.

Cooper, J.A.G., and Pilkey, O.H., 2002, The Barrier Islands of Southern Mozambique: ICS 2002 proceedings: Journal of Coastal Research Special Issue 36, p. 164–172.

Pilkey, O. H., 2002, Longshore transport volumes: A critical view: ICS 2002 Proceedings: Journal of Coastal Research Special Issue 36, p. 572-580.

Stutz, M.L., and Pilkey, O.H., 2002, Global distribution and morphology of deltaic barrier island systems: ICS 2002 Proceedings: Journal of Coastal Research Special Issue 36, p. 694–707.

Martinez, J.O., Gonzalez, J., Pilkey, O., and Neal, W., 2003, Evolución y consideraciones geoambientales de las islas barrera en el Pacífico central de Colombia. Memorias del Taller: "El Mundo Marino de Colombia y Territorios olvidados." Universidad Nacional de Colombia (Bogotá), p. 97-109.

Pilkey, O.H., and Cooper, J.A.G., 2004, Society and sea level rise: Science (19 Mar.), v. 303, p. 1781–1782.

Cooper, J.A.G., and Pilkey, O.H., 2004, Questioning the rules in coastal erosion (letter to editor): Physics Today (August), p. 21-22.

Cooper, J.A.G., and Pilkey, O.H., 2004, Longshore Drift: Trapped in an Expected Universe: Journal of Sedimentary Research, v. 74, p. 599-606.

Pilkey, O.H., Neal, W.J. and Bush, D.M., 2004, Coastal Erosion, in Isla, F.I., (ed.), Coastal Zones and Estuaries, Coastal Dynamics, Encyclopedia of Life Support Systems (EOLSS), Developed under the Auspices of the UNESCO. EOLSS Publishers, Oxford, UK (http://www.eolss.net).

Cooper, J.A.G., and Pilkey, O.H., 2004, Alternatives to the mathematical modeling of beaches: Journal of Coastal Research, v. 20(3), p. 641-644.

Cooper, J.A.G., and Pilkey, O.H., 2004, Sea level rise and shoreline retreat: time to abandon the Bruun Rule: Global and Planetary Change, v. 43, p. 157-171.

Neal, W.J., Bush, D.M., and Pilkey, O.H., 2005, Managed Retreat, in Schwartz, M.L. (ed.), Encyclopedia of Coastal Science: Springer, Dordrecht, The Netherlands, p. 602–606; Springer, New York, NY, p. 745-749.

Pilkey, O.H., 2005, Foreword, in Schwartz, M.L. (ed.), Encyclopedia of Coastal Science: Springer, Dordrecht, The Netherlands, 1211 p.

Lewis, D.A., Cooper, J.A.G., and Pilkey, O.H., 2005, Fetch limited barrier islands of Chesapeake Bay and Delaware Bay: Journal of Southeastern Geology, v. 44, p. 1–17.

Stutz, M., and Pilkey, O.H., 2005, The relative influence of humans on barrier islands: humans versus geomorphology, in Ehlen, J., Haneberg, W.C., and Larson, R.A. (eds.) Humans as Geologic Agents: Reviews in Engineering Geology, Geological Society of America, p. 137-148.

Pilkey, O.H., and Young, R.S., 2005, Editorial: Will Hurricane Katrina impact shoreline

management? Here's why it should: Journal of Coastal Research, v. 21(6), iii-ix.

Pilkey, O., 2005, Eye of the Storm: Duke Magazine, v. 91, no. 4, p. 72.

Young, R.S., and Pilkey, O.H., 2006, Reply to: Simmons, H., 2006. Discussion of:

Pilkey, O.H. and Young, R.S., 2005. Editorial: Will Hurricane Katrina Impact Shoreline Management? Here's Why It Should: *Journal of Coastal Research*, v. 21(6), iii-ix. *Journal of Coastal Research*, v. 22(4), 1010-1012: Journal of Coastal Research, v. 22(4), p. 1013.

Pilkey, O.H., and Cooper, J.A.G., 2006, Discussion of Cowell, et al., 2006, Management of uncertainty in predicting climate-change impacts on beaches, *Journal of Coastal Research*, 22(1), 232-245: Journal of Coastal Research v. 22(6), p. 1577-1579.

Pilkey, O.H., and Coburn, A., 2006, Beach Nourishment: Is It Worth the Cost? – Perspective: Professional Dialog, NOAA Coastal Services Center, http://www.csc.noaa.gov/beachnourishment/html/human/dialog/series1a.htm.

Pilkey, O.H., and Coburn, A., 2006, Beach Nourishment: Is It Worth the Cost? – Response: Professional Dialog, NOAA Coastal Services Center, http://www.csc.noaa.gov/beachnourishment/html/human/dialog/series1c.htm.

Pilkey, O.H., 2006, What I Did On My Summer Vacation, Beach Nourishment: Is It Worth the Cost? – Conclusion: Professional Dialog, NOAA Coastal Services Center, http://www.csc.noaa.gov/beachnourishment/html/human/dialog/series1d.htm.

Pilkey, O.H., and Coburn, A., 2006, Beach Nourishment: It's a Good Investment – Critique: Professional Dialog, NOAA Coastal Services Center, http://www.csc.noaa.gov/beachnourishment/html/human/dialog/series2b.htm.

Pilkey, O.H., 2006, The Coast Isn't Clear: Grist Magazine: Environmental News and Commentary - Interactivist, Q&A with environmental foot soldiers: http://www.grist.org/comments/interactivist/2006/09/25/pilkey/index.html.

Pilkey, O.H., 2006, Orrin Relations: Grist Magazine: Environmental News and Commentary - Interactivist, Q&A with environmental foot soldiers: http://www.grist.org/comments/interactivist/2006/09/25/pilkey/index1.html.

Pilkey, O.H., and Trembanis, A., 2007, In Memoriam (Sam Smith), Journal of Coastal Research 23(1), p. 282.

Pilkey, O., 2007, Beach Nourishment: Not the Answer: Business & Economic Review, Moore School of Business, University of South Carolina, Division of Research, Columbia, SC, v. 53, no. 2, p. 7-8. Cooper, J.A.G., and Pilkey, O.H., 2007, Field measurement and quantification of longshore sediment transport: an unattainable goal? in Balson, P.S. and Collins, M.B. (eds.), Coastal and Shelf Sediment Transport: Geological Society of London, Special Publications 274, p. 37-43.

Cooper, J.A.G., and Pilkey, O.H., 2007, Rejoinder to: Cowell, P.J., and Thom, B.G., 2006. Reply to: Pilkey, O.H. and Cooper, A.G., 2006. Discussion of Cowell, et al., 2006. Management of Uncertainty in Predicting Climate-Change Impacts on Beaches. *Journal of Coastal Research*, 22(1), 232-245; *Journal of Coastal Research*, 22(6), 1577-1579; *Journal of Coastal Research*, 22(6), 1580-1584. Journal of Coastal Research, v. 23(1), p. 277-280.

Cooper, J.A.G., Lewis, D.A., Pilkey, O.H., 2007, Fetch-limited barrier islands: overlooked coastal landforms: GSA Today, v. 17, no. 3, p. 4-9.

Pilkey, O.H., and Pilkey-Jarvis, L, 2007, Mathematical Models Just Don't Add Up: The Chronicle of Higher Education, Section B, May 25, 2007, p. B12.

Pilkey, O.H., and Cooper, J.A.G., 2007, Lifting the Flap or Why Coastal Models Don't Work: Journal of Coastal Research, SI 50 (Proceedings of the 9th International Coastal Symposium), 585-587, Gold Coast, Australia.

Cooper, J.A.G., Pilkey, O.H., and Lewis, D.A., 2007, Islands behind Islands: An unappreciated coastal landform category: Journal of Coastal Research, SI 50 (Proceedings of the 9th International Coastal Symposium), 907-911, Gold Coast, Australia.

Lewis, D.A., Cooper, J.A.G., Pilkey, O.H., and Short, A.D., 2007, Fetch Limited Barrier Islands of Spencer Gulf, South Australia: Journal of Coastal Research, SI 50 (Proceedings of the 9th International Coastal Symposium), 912-916, Gold Coast, Australia.

Cooper, J.A.G., and Pilkey, O.H., 2008, Discussion of: Brøker, et al., 2007,

Morphological modeling: a tool for optimization of coastal structures. *Journal of Coastal Research* 23, p. 1148-1158: Journal of Coastal Research 24(3), pp. 814-816.

Pilkey, O.H., Cooper, J.A.G., and Lewis, D.A., 2009, Global distribution and geomorphology of fetch-limited barrier islands, Journal of Coastal Research 25(4), pp. 819-837.

Pilkey, O.H. and Neal, W.J., 2009, North Topsail Beach, North Carolina: A Model for Maximizing Coastal Hazard Vulnerability, in Kelley, J.T., Pilkey, O.H., and Cooper, J.A.G. (eds.), America's Most Vulnerable Coastal Communities: Geological Society of

California Coastal Commission re: Comments on Goleta Beach Project May 5, 2015

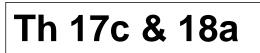
America, Special Paper 460, p. 73-90.

Stutz, M.L., and Pilkey, O.H., 2011, Open-ocean Barrier Islands: Global Influence of Climatic, Oceanographic, and Depositional Settings: Journal of Coastal Research, 27(2), 207-222.

STATE OF CALIFORNIA -- THE RESOURCES AGENCY

CALIFORNIA COASTAL COMMISSION SOUTH CENTRAL COAST AREA 89 SOUTH CALIFORNIA ST., SUITE 200

VENTURA, CA 93001 (805) 585-1800





 Application Filed:
 3/19/06

 180th Day:
 9/15/06

 Extended 180th Day:
 12/14/06

 Appeal Filed:
 3/13/06

 49th Day:
 waived

 Staff:
 LF-V

 Staff Report:
 11/02/06

 Hearing Date:
 11/16/06

 Commission Action:
 Line Action:

STAFF REPORT: REGULAR CALENDAR

AND

STAFF REPORT AND RECOMMENDATION ON APPEAL SUBSTANTIAL ISSUE AND DE NOVO COASTAL DEVELOPMENT PERMIT

- **APPLICATION NO.:** 4-05-148
- APPEAL NO.: A-4-SBV-06-037
- LOCAL GOVERNMENT: City of Ventura
- LOCAL DECISION: Approval with Conditions
- APPELLANTS: Commissioners Caldwell and Kruer
- APPLICANTS: City of Ventura; 31st Agricultural District
- **PROJECT LOCATION:** Surfer's Point, City of Ventura

PROJECT DESCRIPTION (PERMIT APPLICATION): Tidelands portion of a managed shoreline retreat project, including stabilization and restoration of approximately 1800 linear feet of beach. The proposed project includes demolition of an existing 223 space parking lot and excavation of underlying fill, including sand, silt and debris, to a depth of approximately 6 to 8 feet above sea level; removal of an existing approximately 200 foot long rock revetment; construction of an approximately 1800 foot long, 94 to 110 foot wide (at base), 13.5 ft. high cobble berm consisting of approximately 33,000 cu. yds. of cobble; placement of approximately 27,500 cu. yds. of sand to provide infill and backfill for the cobble berm; placement of an additional approximately 16,500 cu. yds. of sand to create a vegetated sand dune above the berm; restoration of native dune habitat; removal of existing fencing; removal of approximately nine non-native *Metrosiderus sp.*

trees (to be relocated to a proposed parking area landward of the Commission's jurisdiction); removal of an existing storm drain outlet; expansion of an existing landscaped picnic area; construction of an additional approximately 250 sq. ft gathering area consisting of recycled concrete surfacing and an interpretive exhibit; construction of six approximately six ft. wide, 60 to 150 ft. long lumber boardwalk walkways providing vertical access through the dunes; realignment of an existing approximately 160 ft. long connector bicycle path and approximately 3,589 cu. yds. of grading (3,277 cu. yds. cut, 312 cu. yds. fill). The bicycle path will be relocated approximately 60 feet inland and the proposed parking will be relocated approximately 80 -130 feet landward into the Fairgrounds property.

PROJECT DESCRIPTION (APPEAL): Portions of the Surfer's Point Managed Shoreline Retreat project landward of the mean high tide line, including reconfiguration of Shoreline Drive, relocation of parking areas, and realignment of a public bikeway, as detailed below¹:

- Reconfiguration of Shoreline Drive, including shortening of the street by approximately 1,200 linear feet, construction of a roundabout installed at the new western terminus, planting of street trees on either side of the shortened road, and delineation of 25 free on-street "surf check" parking spaces, with a limited use of up to twenty minutes.
- 2. Construction of two parking lots at the western terminus of Shoreline Drive, including a southern parking lot with permeable recycled asphalt paving and approximately 148 high frequency, public parking spaces, and a northern parking lot with grass pave surface and approximately 170 reduced frequency parking spaces. The southern parking lot would be primarily utilized for public coastal access parking, including year-round access subject only to closure during the Ventura County Fair, and would require payment of a nominal fee during daylight hours, generally between 6 AM and 10 PM. The northern lot is intended to primarily serve the Ventura County Fairgrounds but may also be made available for coastal access parking in the event that the southern lot becomes fully occupied. A parking kiosk would control access to both parking lots and a nominal fee would be required for entry.
- 3. The existing Omer Rains Bicentennial Bikeway would continue to front the shoreline and lie between parking lots and the beach. Various paved pathways would lead pedestrians from the parking lots to the bikeway or beach. Low fencing would funnel pedestrians to composite lumber boardwalks providing controlled access through dunes. Two small gathering areas would include interpretive exhibits and pubic art. An existing turf picnic area would be expanded, and an existing bicycle roundabout would include new recycled concrete accent paving.

¹ The project description included here is the project description approved by the City, which has been subsequently revised and clarified. The currently proposed project description for the De Novo permit is included on page 30 of this report.

SUMMARY OF STAFF RECOMMENDATION:

The Surfer's Point Managed Retreat Project involves a comprehensive redevelopment of an approximately 20-acre shoreline area, including approximately 1,800 linear feet of beach, and extends from below the mean high tideline landward to encompass existing beachfront parking areas, a bikeway, a public road, and undeveloped areas that are currently enclosed within the Ventura County Fairgrounds. As such, the proposed project spans the boundary between the City of Ventura's coastal permitting jurisdiction and the Commission's original jurisdiction. Therefore, the portions of the project that are located seaward of the wave uprush line² are addressed in CDP Application No. 4-05-148, and the remainder of the project, which was approved by the City and appealed by Commissioners Caldwell and Kruer, is addressed in Appeal No. A-4-SBV-06-037. Thus the staff report contains recommendations on three items: CDP Application No. 4-05-148, the substantial issue determination for Appeal No. A-4-SBV-06-037, and the De Novo permit for the appealed project.

Staff recommends that the Commission determine that a **substantial issue exists** with respect to the appellants' assertions that the project approved by the City of Ventura is not consistent with the public access and recreation policies of the Coastal Act. Staff further recommends that the Commission, at the **de novo** public hearing, **approve** the proposed project with **nine (9) special conditions** regarding (1) project timing, (2) geologic and engineering recommendations, (3) water quality management plan, (4) landscaping and erosion control plans, (5) interim public access program, (6) parking and road closure notification, (7) coastal access/parking lot operation plan, (8) operations and maintenance responsibilities, and (9) assumption of risk. The standard of review for the de novo review of the project is whether the proposed development is in conformity with the certified City of San Buenaventura Local Coastal Program and the public access policies of the Coastal Act. During the de novo hearing, testimony may be taken from all interested persons. Motions and resolutions can be found on **pages 5-6**. Findings for substantial issue being on **page 23** of this report; findings for the de novo permit are found on **page 29**.

Staff recommends **approval** of the project proposed in CDP Application No. 4-05-148, with **twelve** special conditions regarding: (1) project timing, (2) berm and dunes construction and inspection, (3) long-term berm and dunes monitoring and maintenance, (4) stockpile sites, (5) interim public access program, (6) operations and maintenance responsibilities, (7) dune restoration plan and specifications, (8) landscaping plans, (9) geologic and engineering recommendations, (10) required approvals, (11) assumption of risk, and (12) construction sequencing. The motion and resolution to approve this project is on **pages 6-7** of the staff report. The standard of review for the proposed project is the Chapter Three policies of the Coastal Act. In addition, the certified City of San Buenaventura Local Coastal Program (LCP) serves as guidance. Findings for the permit application begin on page **43** of this report.

² As determined by Philip Williams & Associates, Ltd. in their report entitled "Surfer's Point Managed Shoreline Retreat and Access Restoration – Preliminary Design," dated August 2, 2005

APPROVALS RECEIVED: City of San Buenaventura, Planning Commission Resolution No. 8209 Granting an Administrative Coastal Development Permit & Flood Plain Overlay Zone Development Permit, Case Nos. ACDP-477/FP-22 (January 17, 2006); U.S. Army Corps of Engineers Provisional 404 Permit, File No. 200300321 (January 13, 2006).

SUBSTANTIVE FILE DOCUMENTS: Surfer's Point Managed Shoreline Retreat & Access Restoration, Preliminary Design (Philip Williams & Associates, Ltd., August 2, 2005); Geotechnical Evaluation, Surfer's Point Bike Path Restoration, Seaside Park, San Buenaventura, California (Ninyo & Moore, October 22, 2004); Draft Conceptual Restoration Plan, Surfer's Point, City of Ventura, California (RRM Design Group, February 2006); Surfer's Point Managed Shoreline Retreat Final Environmental Impact Report (FEIR), (Rincon Consultants, March 2003); Surfer's Point Managed Shoreline Retreat Draft Environmental Impact Report (EIR), (Rincon Consultants, Inc., December 2002); Letter re: Surfers Point Managed Shoreline Retreat, Pacific Ocean, City of San Buenaventura, Ventura County, File Reference No. W 25918, from Judy A. Brown, California State Lands Commission (December 15, 2005); City of San Buenaventura Local Coastal Program Amendment No. 1-86; Coastal Development Permit Nos. 4-88-123 (City of San Buenaventura Engineering Department), 4-88-130 (City of San Buenaventura/31st Agricultural District), 4-00-158 (City of San Buenaventura/31st Agricultural District), 4-00-158-A1 (City of San Buenaventura/31st Agricultural District), 4-02-074 (BEACON), and 4-04-101 (City of San Buenaventura/31st Agricultural District); Emergency Coastal Development Permit Application No. 4-91-060-G (City of San Buenaventura/31st Agricultural District); Violation File No. V-4-BVC-92-8 (City of San Buenaventura/31st Agricultural District).

A. <u>STAFF RECOMMENDATION FOR SUBSTANTIAL ISSUE AND DE</u> <u>NOVO PERMIT:</u>

1. MOTION AND RESOLUTION FOR SUBSTANTIAL ISSUE

<u>MOTION</u>: I move that the Commission determine that Appeal No. A-4-SBV-06-037 raises <u>NO</u> substantial issue with respect to the grounds on which the appeals have been filed under §30603 of the Coastal Act.

STAFF RECOMMENDATION:

Staff recommends a **NO** vote. Failure of this motion will result in a de novo hearing on the application, and adoption of the following resolution and findings. Passage of this motion will result in a finding of No Substantial Issue and the local actions will become final and effective. The motion passes only by an affirmative vote of the majority of the appointed Commissioners present.

RESOLUTION TO FIND SUBSTANTIAL ISSUE:

The Commission hereby finds that Appeal No. A-4-SBV-06-037 presents a substantial issue with respect to the grounds on which the appeals have been filed under §30603 of the Coastal Act regarding consistency with the Certified Local Coastal Plan and/or the public access and recreation policies of the Coastal Act.

2. MOTION AND RESOLUTION FOR DE NOVO PERMIT

<u>MOTION</u>: I move that the Commission approve Coastal Development Permit No. A-4-SBV-06-037 pursuant to the staff recommendation.

STAFF RECOMMENDATION OF APPROVAL:

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

RESOLUTION TO APPROVE THE PERMIT:

The Commission hereby approves a coastal development permit for the proposed development on the ground that the development is located between the sea and the first public road nearest the shoreline and will conform with the policies of the certified Local Coastal Program for the City of Ventura and the public access and public recreation policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act since feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment.

B. <u>STAFF RECOMMENDATION ON PERMIT APPLICATION NO. 4-05-</u> <u>148:</u>

<u>MOTION</u>: I move that the Commission approve Coastal Development Permit No. 4-05-148 pursuant to the staff recommendation.

STAFF RECOMMENDATION OF APPROVAL:

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

RESOLUTION TO APPROVE THE PERMIT:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development

4-05-148 and A-4-SBV-06-037 (Surfer's Point) Page 6

as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

- 1. <u>Notice of Receipt and Acknowledgment</u>. The permit is not valid and development shall not commence until a copy of the permit, signed by the applicants or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
- 2. <u>Expiration</u>. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
- **3.** <u>Interpretation</u>. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
- 4. <u>Assignment</u>. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
- 5. <u>Terms and Conditions Run with the Land</u>. These terms and conditions shall be perpetual, and it is the intention of the Commission and the applicants to bind all future owners and possessors of the subject property to the terms and conditions. These terms and conditions shall be perpetual, and it is the intention of the Commission and the applicants to bind all future owners and possessors of the subject property and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS FOR PERMIT NO. 4-05-148

1. Project Timing

A. All construction operations, including operation of equipment, material placement or removal, placement or removal of equipment or facilities, public access restrictions, or other activities *shall be prohibited* from the Friday prior to Memorial Day in May through Labor Day in September to avoid impacts on public recreational use of the beach and other public amenities in the project vicinity. B. After Labor Day and before the first Friday prior to Memorial Day, project activities may occur Monday through Friday, excluding state holidays. No work shall occur on Saturday or Sunday.

2. Berm and Dunes Construction and Inspection

- A. <u>Cobble quality and size</u>: Material used to construct the cobble berm shall be relatively round in shape and between 4 inches and 12 inches in diameter, with an average diameter of about 8 inches to 10 inches. Gravels and smaller cobbles (less than 4 inches in diameter) shall be excluded from the berm. A minor amount of cobble berm material no more than 5% by volume -- may be greater than 12 inches, but no greater than 18 inches, in diameter. All unsuitable materials that are detected within the cobble placement area, such as brush, debris, sharp rocks, or other materials inconsistent with public safety or cobble composition, shall be immediately removed and disposed at a licensed landfill.
- B. <u>Sand grain size</u>: Material placed on the cobble berm for infill and dune construction shall consist of sand for which an average of 90% or more of the material is coarse grained (retained on a Standard U.S. Sieve Size No. 200). Of the coarse grained material (retained on a Standard U.S. Sieve Size No. 200), no more than five percent shall consist of gravel or pebble-sized material (2 mm 64 mm). To achieve the desired gradation of material, the source may be screened out or mechanically sorted.
- C. <u>Artificial fill removal</u>: Existing artificial fill located within the area of proposed cobble berm and dunes construction shall be removed to the maximum extent feasible.
- D. <u>Sediment analysis</u>: An engineer(s) or environmental professional(s) with appropriate qualifications acceptable to the Executive Director shall prepare a Sampling and Analysis Plan and conduct testing of any sand materials to be deposited on the berm consistent with the following:
 - i. <u>Contaminants</u>: Chemical analysis shall be conducted on representative samples of each source material proposed for placement on the project site. The material shall be analyzed for consistency with EPA, ACOE, State Water Resources Control Board and RWQCB requirements for beach replenishment. At a minimum, the chemical analysis shall be conducted consistent with the joint EPA/Corps *Inland Testing Manual*. If it is determined that the sediment exceeds any ACOE, EPA, State Water Resources Board or RWQCB contaminant threshold levels, the materials shall not be placed on the project site.
 - ii. <u>Color</u> --- Color classification shall be conducted on representative samples of each source material (sand only) proposed for placement on the project site. The color shall reasonably match the color of the receiving beach after reworking by wave action.
 - iii. <u>Particle Shape</u> Particle shape classification shall be conducted on representative samples of each source material proposed for placement at any of

the five deposition sites. For beach replenishment, the source material shall consist of a minimum of 90% rounded particles (i.e., maximum of 10% angular particles).

- iv. <u>Debris Content</u> A visual inspection of the source location shall be conducted to determine the presence and types of debris such as trash, wood, or vegetation. The amount of debris within the material shall be estimated, as a percentage of the total amount of source material. Prior to placement of sand at the project site, all such debris material shall be separated from the sand (by mechanical screening, manual removal or other means) and taken to a proper disposal site authorized to receive such material.
- <u>Compactability</u> Chemical and visual inspections of the source location shall be conducted to determine the presence of elements such as iron oxides which can compact to form a hardpan surface. Source material with compactable material shall not be allowed.

The results and analysis of the testing shall be submitted for the review and approval of the Executive Director no later than 30 days prior to construction of the berm and dunes. Source material that does not meet the applicable physical, chemical, color, particle shape, debris, and/or compactability standards for beach replenishment shall not be placed on the project site.

- D. <u>Berm and dune construction schedule</u>: At least 5 working days prior to construction of the berm and dunes, the applicants shall provide the executive director with a construction schedule to allow for inspections of the cobble berm and quality of material being used in the berm construction.
- E. <u>On-site construction monitor</u>: The applicant shall retain the services of a qualified engineer, soil scientist or resource specialist, with appropriate qualifications acceptable to the Executive Director. The on-site monitor shall be present whenever cobble or sand is being placed on the beach. The monitor shall, through grab samples, visual inspection or other methods, insure that the delivered material is within the acceptable size ranges for nourishment material. If the material is not within the acceptable size range, the monitor shall halt the placement of materials on the beach. The monitor shall also examine the material to determine presence of debris. If any debris or unacceptable material is detected, the placement of materials shall be halted. The project shall not continue until the composition of the sand material is consistent with the requirements of this special condition.
- F. <u>Preparation of As-Built Plans</u>: The applicants shall undertake surveys and mapping of the key berm features (berm crest, berm footprint and seaward berm toe) sufficient to provide As-Built Plans of underlying cobble berm, vegetated dune, boardwalk locations, inland dune area, bike path and beach parking area. Fixed inland locations shall be identified on the as-built plans such that the position of the buried cobble berm crest and berm toe can be located during the monitoring phase [see **Special Condition Three (3)**] without excavating into the vegetated dune cover or boardwalk.

- G. <u>Transmittal of As-Built Plans and Coordination with Monitoring</u>: Within 30 days of completion of the vegetated dune and boardwalk, the applicants shall provide copies of the As Built Plans to the on-site monitor, and to the Executive Director for review and approval [see Special Condition Three (3)].
- H. <u>Project Changes</u>: Proposed changes to the project may require a permit amendment or new permit. Any proposed changes to the approved program shall be reported to the Executive Director. No change to the program shall occur without a Commissionapproved amendment to the permit unless the Executive Director determines that no such amendment is required.

3. Long-term Berm and Dunes Monitoring and Maintenance

- A. <u>Selection of Berm Monitor</u>: Prior to issuance of the Coastal Development Permit, the applicant shall identify a monitor for the berm and submit, for the review and approval of the Executive Director, the name, contact information and qualifications of the berm monitor. If this information changes over the life of the monitoring program, (if a new monitor is hired or if the contact for the monitor changes), the applicants shall provide the Executive Director with updates or new information about the monitor. At a minimum, the monitor shall be a civil engineer familiar with coastal processes and shoreline dynamics.
- B. Development of Baseline Conditions and Detailed Monitoring Program: The monitor shall develop a complete baseline condition of the berm, sufficient to undertake the long-term monitoring program, report on the overall condition and effectiveness of the dune and berm system, and provide guidance on when and what levels of maintenance should be undertaken. Development of the baseline condition shall include, but not be limited to the As-Built Plans, inspection of the project site, subsurface probes, site investigations, photo documentation and discussions with the construction contractor. Within 30 days of completion of the berm, the monitor shall submit, for the review and approval of the Executive Director, a detailed Monitoring Plan that establishes the procedures that will be used to assure the effectiveness of the berm, the types of information that will be used to determine the berm effectiveness, methods to compare the future berm condition with the condition of the berm immediately following construction, and triggers for berm maintenance. The Monitoring Plan shall specify all baseline information that is needed for future monitoring and evaluation of the berm stability and effectiveness; if the information on baseline conditions is not adequate to support all future monitoring, the monitor shall identify the needed information and the applicants shall work with the monitor to obtain all necessary baseline information. All information necessary to determine baseline conditions shall be developed within six months after construction of the berm.
- C. <u>Development of Monitoring Plan</u>: Within 30 days of construction of the berm, the monitor shall submit, for the review and approval of the Executive Director, a detailed monitoring plan that provides:

- i. Use of standard inspection methods such as georeferenced aerial photography, LIDAR, GPS or other field survey techniques, to estimate any changes in surface topography of the restored area and the beach. At a minimum there should be 5 profiles through the berm area and transition area from berm to beach taken twice annually for summer and winter conditions.
- ii. Visual inspections of the project site for signs of excessive erosion should be undertaken monthly throughout the winter (starting November and continuing through April) and during or immediately after any storm event with a return period greater than 10-years. Areas of concerns shall be photographed from stable, documented photo points so the rate and severity of erosion can be assessed. If there are indications of erosion or if any portion of the cobble berm is exposed, monthly inspections shall continue until the erosion condition is corrected by the natural input of sand to the area, or through implementation of permitted maintenance efforts, including sand renourishment.
- iii. Comparison of the performance of the restoration project to the baseline conditions and to other similar cobble berm and dune systems in the Ventura area, such as Emma Woods Beach Park.
- iv. Development of maintenance triggers, such as movement of any portion of the cobble berm to within 50 feet of the bike path, or deflation of the dune/berm crest to below +13 feet, MLLW.
- v. If monthly or seasonal monitoring identifies that one or more of the triggers has been reached, the monitoring plan shall outline the process that will be initiated to respond to these triggers with timely and appropriate maintenance.
- vi. Written monitoring reports shall be prepared and submitted annually for the review and approval of the Executive Director. The written monitoring reports shall provide the developed profiles, photo documentation, analysis and determination of the overall condition of the beach, vegetated dune and underlying cobble berm. If any maintenance has been performed in the prior year, the type of work, area and location of the needed maintenance, volumes of added sand and cobble, and other pertinent information on the maintenance activities shall also be reported in the monitoring report.
- D. <u>Maintenance Triggers</u>: The monitoring plan shall provide timely triggers to determine when maintenance will be required and shall provide sufficient early warning of potential drop in effectiveness of the cobble berm such that the applicants can develop and implement an approved maintenance plan that will prevent damage to the bike path, water quality features and other access or resource protective components of the project. Anticipated maintenance would include retrieval of errant cobble from the active sand beach and reincorporation of retrieved cobble into the berm, the addition of appropriated sized and cleaned cobble into areas where the cobble berm has been exposed and eroded, placement of appropriately sized sand cover for dune development, and addition of dune vegetation.

- E. <u>Maintenance Authorization</u>. Maintenance of the cobble berm and sand dunes authorized by this permit, including reconstruction and renourishment of the berm and dunes within the approved envelope and according to the required standards, may be performed for a period of five (5) years from the date of issuance of this permit. This five (5) year maintenance period may be extended for any additional period of time that is authorized in an amendment to this permit.
- F. <u>Maintenance Construction and Inspections</u>. Maintenance activities shall be subject to all of the standards and requirements for berm and dune construction, as detailed in **Special Condition Two (2)** above.

4. Stockpile Sites

- A. Permanent stockpiling of material at any of the stockpile sites subject to this permit shall not be allowed. The stockpile sites must be cleared and returned to their preconstruction condition with no remaining equipment, silt fencing, or construction equipment remaining on-site within one week of completion of the project.
- B. Temporary erosion control measures, such as sand bag barriers, silt fencing; and/or swales, shall be implemented for all stockpiled material. These temporary erosion control measures shall be required at the site(s) prior to or concurrent with the initial grading operations and shall be monitored and maintained until all stockpiled fill has been removed from the project site. Successful implementation of erosion control measures will ensure that the material is completely stabilized and held on site.

5. Interim Public Access Program

- A. Prior to issuance of the coastal development permit, the applicant shall submit, for the review and approval of the Executive Director, a report which describes the methods (including signs, fencing, posting of security guards, etc.) by which safe public access to or around the beach deposition site and/or staging area(s) shall be maintained during all project operations. Where public paths or bikeways shall be closed during active operations, a person(s) shall be on-site to detour traffic.
- B. Prior to issuance of the coastal development permit, the applicant shall submit, for the review and approval of the Executive Director, plans for staging and storage of equipment. Public parking areas shall not be used for staging or storage of equipment and materials, unless there is no feasible alternative. Where use of public parking spaces is unavoidable, the minimum number of public parking spaces (on and off-street) that are required for the staging of equipment, machinery and employee parking shall be used. At each site, the number of public parking spaces utilized shall be the minimum necessary to implement the project.
- C. The applicant shall post each construction site with a notice indicating the expected dates of construction and/or beach closures.

6. Operations & Maintenance Responsibilities

It shall be the applicant's responsibility to assure that the following occurs concurrent with, and after completion of, all project operations:

- (1) The applicant shall not store any construction materials or waste where it will be or could potentially be subject to wave erosion and dispersion. In addition, no machinery shall be placed, stored or otherwise located in the intertidal zone at any time, except for the minimum necessary to implement the project.
- (2) Construction equipment shall not be cleaned on the beach or in the beach parking lots.
- (3) Construction debris and sediment shall be properly contained and secured on site with BMPs to prevent the unintended transport of sediment and other debris into coastal waters by wind, rain or tracking.
- (4) Construction debris and sediment shall be removed from construction areas as necessary to prevent the accumulation of sediment and other debris which may be discharged into coastal waters. Any and all debris resulting from construction activities shall be removed from the project site within 24 hours. Debris shall be disposed at a debris disposal site outside of the coastal zone or at a location within the coastal zone authorized to receive such material.
- (5) The applicant shall be responsible for removing all unsuitable material or debris within the area of placement should the material be found to be unsuitable for any reason, at any time, when unsuitable material/debris can reasonably be associated with the placement material. Debris shall be disposed at a debris disposal site outside of the coastal zone or at a location within the coastal zone authorized to receive such material.

7. Dune Restoration Plan and Specifications

- A. Prior to issuance of the coastal development permit, the applicants shall submit, for the review and approval of the Executive Director, two (2) sets of final dune restoration plans and specifications in substantial conformance with the *Draft Conceptual Restoration Plan, Surfer's Point, City of Ventura, California* report by RRM Design Group, dated February 2006, which is attached as **Exhibit 6**. Said plans shall be prepared by a qualified biologist, ecologist, or resource specialist who is experienced in the field of restoration ecology, and who has a background knowledge of the various habitats associated with the project site. The final plans shall include, at a minimum, the following information:
 - Sufficient technical detail on the restoration planting design including, at a minimum, a planting program including planting methods, weed control techniques, maintenance, and monitoring, removal of exotic species, a list of all species to be planted, sources of seeds and/or plants, timing of planting, plant locations and elevations on the restoration base map, and maintenance techniques.
 - 2. Engineered grading plans including existing and proposed ground elevation contours; location and size of all equipment and stockpile sites to

be used; cut and fill locations and quantities; and location, design and specifications of any other structures necessary to carry out the proposed project.

- Documentation of the necessary management and maintenance requirements, and provisions for timely remediation, such as for erosion control and/or impacts from any necessary maintenance to the cobble berm, should the need arise.
- 4. Performance criteria consistent with achieving the identified goals and objectives; measures to be implemented if success criteria are not met; and long-term adaptive management of the restored areas for a period of not less than seven (7) years.
- 5. Documentation requirements and submittal schedules for reviewing agencies.
- B. The applicants shall implement the monitoring plan described in the Draft Conceptual Restoration Plan, Surfer's Point, City of Ventura, California report by RRM Design Group, dated February 2006, and provide annual monitoring reports. The applicants shall submit, for the review and approval of the Executive Director, on an annual basis, for a period of seven (7) years, a written monitoring report, prepared by a monitoring resource specialist indicating the progress and relative success or failure of the restoration on the site. This report shall also include further recommendations and requirements for additional restoration activities in order for the project to meet the criteria and performance standards. This report shall also include photographs taken from predesignated sites (annotated to a copy of the site plans) indicating the progress of recovery at each of the sites. At the end of the seven-year period, a final detailed report on the restoration shall be submitted for the review and approval of the Executive Director. If this report indicates that the restoration project has, in part, or in whole, been unsuccessful, based on the performance standards specified in the restoration plan, the applicants shall be required to submit a revised or supplemental program to compensate for those portions of the original program that were not successful. The revised or supplemental program shall be processed as an amendment to this permit. During the seven-year monitoring period, all artificial inputs shall be removed except for the purposes of providing mid-course corrections or maintenance to ensure the longterm survival of the restoration site. If these inputs are required beyond the first two years, then the monitoring program shall be extended for every additional year that such inputs are required, so that the success and sustainability of the restoration is insured. The restoration site shall not be considered successful until it is able to survive without artificial inputs.
- C. The restoration plan shall be implemented by qualified biologists, ecologists, or resource specialists who are experienced in the field of restoration ecology. The monitoring plan shall be implemented immediately following planting.
- D. The applicants shall undertake development in accordance with the final approved plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a

Coastal Commission-approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

8. Landscaping Plans

Prior to issuance of a coastal development permit, the applicant shall submit landscaping plans for the turf picnic area, prepared by a licensed landscape architect or a qualified resource specialist, for review and approval by the Executive Director. The plans shall incorporate the criteria set forth below.

A) Landscaping Plan

- 1) To minimize the need for irrigation landscaping shall consist primarily of native/drought resistant plants. No plant species listed as problematic and/or invasive by the California Native Plant Society, the California Exotic Pest Plant Council, or by the State of California shall be employed or allowed to naturalize or persist on the site. No plant species listed as a 'noxious weed' by the State of California or the U.S. Federal Government shall be utilized within the property.
- Plantings will be maintained in good growing condition throughout the life of the project and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with applicable landscape requirements;
- 3) The applicants shall undertake development in accordance with the final approved plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Coastal Commission approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.
- 4) Five years from the date of completion of initial landscaping for the turf picnic area, the applicant shall submit for the review and approval of the Executive Director, a landscape monitoring report, prepared by a licensed Landscape Architect or qualified Resource Specialist, that certifies the on-site landscaping is in conformance with the landscape plan approved pursuant to this Special Condition. The monitoring report shall include photographic documentation of plant species and plant coverage.

If the landscape monitoring report indicates the landscaping is not in conformance with or has failed to meet the performance standards specified in the landscaping plan approved pursuant to this permit, the applicant, or successors in interest, shall submit a revised or supplemental landscape plan for the review and approval of the Executive Director. The revised landscaping plan must be prepared by a licensed Landscape Architect or a qualified Resource Specialist and shall specify measures to remediate those portions of the original plan that have failed or are not in conformance with the original approved plan.

9. Plans Conforming to Geotechnical Engineer's Recommendations

By acceptance of this permit, the applicant agrees to comply with the recommendations contained in the submitted geotechnical report (Geotechnical Evaluation, Surfer's Point Bike Path Restoration, Seaside Park, San Buenaventura, California by Ninyo & Moore, October 22, 2004). All recommendations shall be incorporated into all final design and construction, including recommendations concerning foundations, grading, and <u>drainage</u>, and must be reviewed and approved by the consultant prior to commencement of development.

The final plans approved by the consultant shall be in substantial conformance with the plans approved by the Commission relative to construction, grading, and drainage. Any substantial changes in the proposed development approved by the Commission that may be required by the consultant shall require amendment(s) to the permit(s) or new Coastal Development Permit(s).

10. <u>Required Approvals</u>

By acceptance of this permit, the applicant agrees to obtain all other necessary State or Federal permits that may be necessary for all aspects of the proposed project, including from the U.S. Army Corps of Engineers, California Regional Water Quality Control Board, California State Lands Commission, and Federal Highway Administration.

11. Assumption of Risk, Waiver of Liability and Indemnity Agreement

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

12. Construction Sequencing

Construction of the development authorized under Coastal Development Permit No. 4-05-148 shall not occur until after construction of the development authorized under de novo Coastal Development Permit No. A-4-SBV-06-037 has been completed in accordance with all required standard and special conditions.

IV. SPECIAL CONDITIONS FOR DE NOVO PERMIT NO. A-4-SBV-06-037

1. Project Timing

- A. All construction operations, including operation of equipment, material placement or removal, placement or removal of equipment or facilities, public access restrictions, or other activities *shall be prohibited* from the Friday prior to Memorial Day in May through Labor Day in September to avoid impacts on public recreational use of the beach and other public amenities in the project vicinity.
- B. After Labor Day and before the first Friday prior to Memorial Day, project activities may occur Monday through Friday, excluding state holidays. No work shall occur on Saturday or Sunday.

2. Plans Conforming to Geotechnical Engineer's Recommendations

By acceptance of this permit, the applicant agrees to comply with the recommendations contained in the submitted geotechnical report (Geotechnical Evaluation, Surfer's Point Bike Path Restoration, Seaside Park, San Buenaventura, California by Ninyo & Moore, October 22, 2004) shall be incorporated into all final design and construction, including recommendations concerning foundations, grading, and <u>drainage</u>, and must be reviewed and approved by the consultant prior to commencement of development.

The final plans approved by the consultant shall be in substantial conformance with the plans approved by the Commission relative to construction, grading, and drainage. Any substantial changes in the proposed development approved by the Commission that may be required by the consultant shall require amendment(s) to the permit(s) or new Coastal Development Permit(s).

3. Water Quality Management Plan (WQMP)

A. Prior to issuance of the coastal development permit, the applicants shall submit for the review and approval of the Executive Director, two (2) copies of a Final Water Quality Management Plan (WQMP) for the post-construction project site, prepared by a licensed water quality professional, and shall include plans, descriptions, and supporting calculations. The WQMP shall be in substantial conformance with the Illustrative Plan (June 2005) and Grading Plan (February 16, 2006) prepared by RRM Design Group and received by Commission staff on February 17, 2006. The WQMP shall incorporate structural and non-structural Best Management Practices (BMPs) designed to reduce, to the maximum extent practicable, the volume, velocity and pollutant load of stormwater and dry weather flows leaving the developed site. In addition to the specifications above, the plan shall be in substantial conformance with the following requirements:

- 1. The proposed development shall reduce or maintain predevelopment peak runoff rates and average volumes to the maximum extent practicable.
- Appropriate structural and non-structural BMPs (site design, source control and treatment control) shall be designed and implemented to minimize water quality impacts to surrounding coastal waters.
- 3. Impervious surfaces, especially directly connected impervious areas, shall be minimized, and alternative types of pervious pavement shall be used where feasible.
- 4. Irrigation and the use of fertilizers and other landscaping chemicals shall be minimized.
- 5. Trash, recycling and other waste containers, as necessary, shall be provided. All waste containers anywhere within the development shall be covered, watertight, and designed to resist scavenging animals.
- 6. Runoff from all roofs, roads and parking areas shall be collected and directed through a system of structural BMPs including vegetated areas and/or gravel filter strips or other vegetated or media filter devices. The system of BMPs shall be designed to 1) trap sediment, particulates and other solids and 2) remove or mitigate contaminants (including trash, debris and vehicular fluids such as oil, grease, heavy metals and hydrocarbons) through infiltration, filtration and/or biological uptake. The drainage system shall also be designed to convey and discharge runoff from the developed site in a non-erosive manner.
- 7. The applicants shall regularly sweep the parking areas, where feasible, at a minimum on a weekly basis, in order to prevent dispersal of pollutants that might collect on those surfaces.
- 8. The detergents and cleaning components used on site shall comply with the following criteria: they shall be phosphate-free, biodegradable, and non-toxic to marine wildlife; amounts used shall be minimized to the maximum extent practicable; no fluids containing ammonia, sodium hypochlorite, chlorinated solvents, petroleum distillates, or lye shall be used.

- 9. The applicants shall not spray down or wash down the parking lot unless the water used is directed through the sanitary sewer system or a filtered drain.
- 10. Activities related to approved vehicle maintenance activity occurring on the project site in the post-development condition shall be subject to the following good housekeeping practices:
 - (a) Absorbent materials and cleanup supplies shall be purchased and maintained in accordance with local regulations and procedures for containment and cleanup of spills, and shall be easily accessible during the aforementioned activities. Used materials must be disposed of in accordance with applicable local regulations.
 - (b) Drip pans of sufficient size shall be used during vehicle fluid removal/replacement activity to catch any drips or spillage.
 - (c) Dry cleanup methods such as sweeping shall be used for removal of litter and debris, and rags and absorbents used for spot cleaning leaks and spills.
- 11. Post-construction structural BMPs (or suites of BMPs) shall be designed to treat, infiltrate or filter the amount of stormwater runoff produced by all storms up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, and/or the 85th percentile, 1-hour storm event, with an appropriate safety factor (i.e., 2 or greater), for flow-based BMPs.
- 12. All BMPs shall be operated, monitored, and maintained for the life of the project and at a minimum, all structural BMPs shall be inspected, cleaned-out, and where necessary, repaired at the following minimum frequencies: (1) prior to October 15th each year; (2) during each month between October 15th and April 15th of each year and, (3) at least twice during the dry season.
- 13. Debris and other water pollutants removed from structural BMP(s) during clean-out shall be contained and disposed of in a proper manner.
- 14. It is the applicants' responsibility to maintain the drainage system and the associated structures and BMPs according to manufacturer's specifications.
- B. The applicants shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the

Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

4. Landscaping and Erosion Control Plans

Prior to issuance of a coastal development permit, the applicant shall submit landscaping and erosion control plans, prepared by a licensed landscape architect or a qualified resource specialist, for review and approval by the Executive Director. The plans shall incorporate the criteria set forth below. All development shall conform to the approved landscaping and erosion control plans:

A) Landscaping Plan

- 1) All graded & disturbed areas on the subject site shall be planted and maintained for erosion control purposes within (60) days of completion of the project. To minimize the need for irrigation all landscaping shall consist primarily of native/drought resistant plants. No plant species listed as problematic and/or invasive by the California Native Plant Society, the California Exotic Pest Plant Council, or by the State of California shall be employed or allowed to naturalize or persist on the site. No plant species listed as a 'noxious weed' by the State of California or the U.S. Federal Government shall be utilized within the property.
- Plantings will be maintained in good growing condition throughout the life of the project and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with applicable landscape requirements;
- 3) The Applicants shall undertake development in accordance with the final approved plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Coastal Commission approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.
- 4) Rodenticides containing any anticoagulant compounds (including, but not limited to, Warfarin, Brodifacoum, Bromadiolone or Diphacinone) shall not be used.

B) Interim Erosion Control Plan

 The plan shall delineate the areas to be disturbed by grading or construction activities and shall include any temporary access roads, staging areas and stockpile areas. The natural areas on the site shall be clearly delineated on the project site with fencing or survey flags.

- 2) The plan shall specify that should grading take place during the rainy season (November 1 March 31) the applicant shall install or construct temporary sediment basins (including debris basins, desilting basins or silt traps), temporary drains and swales, sand bag barriers, silt fencing, stabilize any stockpiled fill with geofabric covers or other appropriate cover, install geotextiles or mats on all cut or fill slopes and close and stabilize open trenches as soon as possible. These erosion measures shall be required on the project site prior to or concurrent with the initial grading operations and maintained through out the development process to minimize erosion and sediment from runoff waters during construction. All sediment should be retained on-site unless removed to an appropriate approved dumping location either outside the coastal zone or to a site within the coastal zone permitted to receive fill.
- 3) Permanent stockpiling of material at any of the stockpile sites subject to this permit shall not be allowed. The stockpile sites must be cleared and returned to their pre-construction condition with no remaining equipment, silt fencing, or construction equipment remaining on-site within one week of completion of the project.

C) Monitoring

Five years from the date of completion of initial landscaping, the applicant shall submit for the review and approval of the Executive Director, a landscape monitoring report, prepared by a licensed Landscape Architect or qualified Resource Specialist, that certifies the on-site landscaping is in conformance with the landscape plan approved pursuant to this Special Condition. The monitoring report shall include photographic documentation of plant species and plant coverage.

If the landscape monitoring report indicates the landscaping is not in conformance with or has failed to meet the performance standards specified in the landscaping plan approved pursuant to this permit, the applicant, or successors in interest, shall submit a revised or supplemental landscape plan for the review and approval of the Executive Director. The revised landscaping plan must be prepared by a licensed Landscape Architect or a qualified Resource Specialist and shall specify measures to remediate those portions of the original plan that have failed or are not in conformance with the original approved plan.

5. Interim Public Access Program

A. Prior to issuance of the coastal development permit, the applicant shall submit, for the review and approval of the Executive Director, a report which describes the methods (including signs, fencing, posting of security guards, etc.) by which

safe public access shall be maintained during all project operations. Where public paths or bikeways shall be closed during active operations, a person(s) shall be on-site to detour traffic.

- B. Prior to issuance of the coastal development permit, the applicant shall submit, for the review and approval of the Executive Director, plans for staging and storage of equipment. Public parking areas shall not be used for staging or storage of equipment and materials, unless there is no feasible alternative. Where use of public parking spaces is unavoidable, the minimum number of public parking spaces (on and off-street) that are required for the staging of equipment, machinery and employee parking shall be used. At each site, the number of public parking spaces utilized shall be the minimum necessary to implement the project.
- C. The applicant shall post all construction sites with a notice indicating the expected dates of construction and/or beach closures.

6. Parking and Road Closure Notification

At least 10 days prior to the closure of Shoreline Drive and/or the existing 223-space public parking lot, the following shall occur:

- A. Prominent signage notifying the public of the impending closures, and directing the public to existing public parking on the east side of the Ventura County Fairgrounds, shall be posted at the eastern limits of construction. Such signage shall be maintained until the proposed parking lots are completed and opened to the public.
- B. A display ad notifying the public of the impending closures, and directing the public to existing public parking on the east side of the Ventura County Fairgrounds, shall be published for at least five (5) consecutive days in a local newspaper.

Evidence of the posting and publication of notices, in conformance with the above stated requirements, shall be submitted for review of the Executive Director prior to commencement of construction.

7. Coastal Access / Parking Lot Operation Plan

Prior to issuance of the coastal development permit, the applicant shall submit, for the review and approval of the Executive Director, a final Coastal Access/Parking Lot Operation Plan outlining the availability of the proposed parking areas in accordance with the following criteria:

A. The proposed 24 free 20-minute "surf check" parking spaces along Shoreline Drive shall be available at all times EXCEPT during the two-week Ventura County Fair.

- B. The proposed 130-space high frequency parking lot shall be available for public coastal access parking during daytime hours (6 AM to 10 PM) at all times, EXCEPT during the two-week Ventura County Fair and during special events, to occur a maximum of five times a year for a duration of no more than three days each.
- C. The proposed 170-space reduced frequency parking lot shall be available for public coastal access parking during daytime hours (6 AM to 10 PM) at times when the 130-space high frequency parking lot has reached capacity, EXCEPT during the two-week Ventura County Fair; from noon to midnight every Saturday between March and November when required for race track operations; and during special events, to occur a maximum of five times a year for a duration of no more than three days.
- D. Bicycle parking shall be provided as follows: a minimum of 20 public bicycle lockers and 32 bicycle parking spaces. Each bicycle parking space shall be at least 2 ½ feet wide. At least five feet of space shall be allowed behind each space to allow room to maneuver. Bicycle parking shall be separated from vehicle parking for safety and ease of use. Prominent signage along the Omer Rains Bicentennial Bikeway shall be installed directing the public to bicycle parking facilities.
- E. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Coastal Commission approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

8. Operations & Maintenance Responsibilities

It shall be the applicant's responsibility to assure that the following occurs concurrent with, and after completion of, all project operations:

- (1) The applicant shall not store any construction materials or waste where it will be or could potentially be subject to wave erosion and dispersion. In addition, no machinery shall be placed, stored or otherwise located in the intertidal zone at any time, except for the minimum necessary to implement the project.
- (2) Construction equipment shall not be cleaned on the beach or in the beach parking lots.
- (3) Construction debris and sediment shall be properly contained and secured on site with BMPs to prevent the unintended transport of sediment and other debris into coastal waters by wind, rain or tracking.
- (4) Construction debris and sediment shall be removed from construction areas as necessary to prevent the accumulation of sediment and other debris which may be discharged into coastal waters. Any and all debris resulting from construction activities shall be removed from the project site within 24 hours. Debris shall be disposed at a debris disposal site outside of the coastal zone or at a location within the coastal zone authorized to receive such material.

(5) The applicant shall be responsible for removing all unsuitable material or debris within the area of placement should the material be found to be unsuitable for any reason, at any time, when unsuitable material/debris can reasonably be associated with the placement material. Debris shall be disposed at a debris disposal site outside of the coastal zone or at a location within the coastal zone authorized to receive such material.

9. Assumption of Risk, Waiver of Liability and Indemnity Agreement

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

V. SUBSTANTIAL ISSUE FINDINGS AND DECLARATIONS

A. APPEAL JURISDICTION

The project site is a beachfront parcel on Surfer's Point Beach. The Post LCP Certification Permit and Appeal Jurisdiction map certified for the City of Ventura (Adopted January 30, 1985) indicates that the appeal jurisdiction for this area extends to the first public road paralleling the sea, which in this case is Highway 101. The proposed project site is within this appeal area. As such, the City's coastal development permit for the subject project is appealable to the Commission.

B. APPEAL PROCEDURES

The Coastal Act provides that after certification of Local Coastal Programs (LCPs), a local government's actions on Coastal Development Permits in certain areas and for certain types of development may be appealed to the Coastal Commission. Local governments must provide notice to the Commission of its coastal permit actions. During a period of ten working days following Commission receipt of a notice of local permit action for an appealable development, an appeal of the action may be filed with the Commission.

1. Appeal Areas

Developments approved by cities or counties may be appealed if they are located within the appealable areas, such as those located between the sea and the first public road

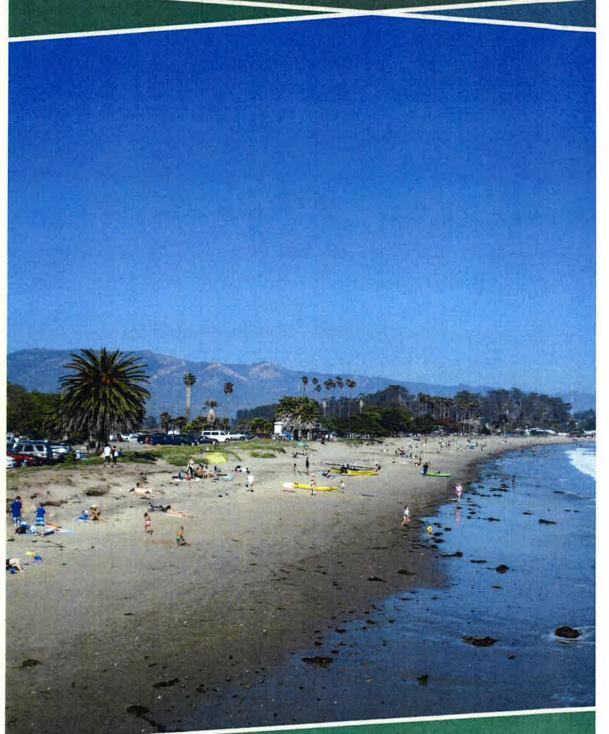




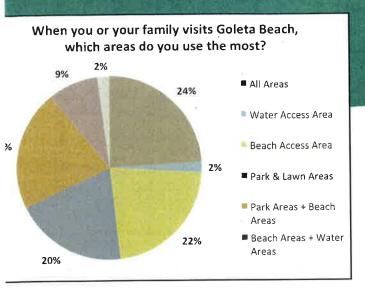
The Goleta Beach Recreational User Survey was performed over five weekend days in March and April of 2015 and randomly polled 494 visitors enjoying Goleta Beach County Park during 40 hours of survey work. The survey was conducted for the Santa Barbara County Community Services Department, Parks Division, under the auspices of the Santa Barbara County Trails Council. The Parks Division has a long standing history of providing outstanding outdoor recreation opportunities at Goleta Beach County Park.

To contact the County Parks Division, please call 805-568-2461 or visit: cosb.countyofsb. org/parks/

GOLETA BEACH Recreational User Survey 2015



Staffing for the survey and data collection provided by: Santa Barbara County Trails Council



Purpose:

This survey was conducted to compile information on the different types and intensities of recreational uses that occur at Goleta Beach County Park. Beach activities and coastal access are important recreational activities in Santa Barbara County. As a result, public beach parks, such as Goleta Beach, Hendry's Beach,

d Rincon Beach, receive substantial public use and are meeting the recreational needs in our mmunity. This survey is intended to provide public agencies and community organizations with its and observations about the type and level of recreational use of one of the most popular ach parks in Santa Barbara County.

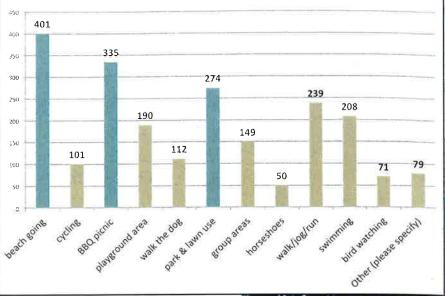


Nethodology:

he survey was conducted over five weekend days in March and April 2015 (3/7/15, 3/8/15, 3/14/15, 3/15/15, and 4/5/15). Conditions were warm and sunny with little to no breeze ind calm seas. Each day, two technicians facilitated the voluntary survey. One technician set ip a table with a County Parks Department banner in a busy location on the lawn. Passing isitors were invited to complete a survey. The other technician traversed the beach and lawn irea west of Goleta Pier, inviting visitors to complete a survey. The one-page survey included 5 questions. Spanish language surveys were provided beginning on 3/14/15 after field echnicians recognized a demand for translated content. Technicians also performed visual field urveys to record observed uses of Goleta Beach at a point in time, including users who did not complete a survey. Technicians observed and recorded individuals and groups within their range of visibility along a transect line; observations included locations of visitor activities (e.g., park and lawn areas or beach areas) and the number of people per group. To minimize double-counting, tallies were unidirectional (i.e., travel from north to south or east to west). The results rom the survey were recorded and analyzed digitally in April 2015.

Goleta Beach County Park is a 29-acre oceanfront park in southern Santa Barbara County, roughly bordered by Highway 217 and the Goleta Slough to the north, the Pacific Ocean to the south, steep coastal bluffs and Goleta Slough outlet to the east, and UCSB's main campus to the west. Goleta Beach County Park is appreciated by the community for its sandy beach and rock-free offshore waters, an important feature along our community's often rocky shoreline. The park and lawn area provides picnic and BBQ facilities, children's playground, restrooms, and landmark palm and shade trees. The Beachside Bar & Grill and 1,500foot long pier provide complementary access to the coast and views of the Channel Islands.

What activities do you regularly do when coming to Goleta Beach?



PARK ADMINISTRATION

WATER ACCESS AREA

PACIFIC OCEAN

PARKING LOT

BEACHSIDE BAR & GRILL

COLLETA

KEY AREAS OF GOLETA BEACH COUNTY PARK

PARK AREA

PARK & LAWIN AREAS

DEACH ACCESS AREA

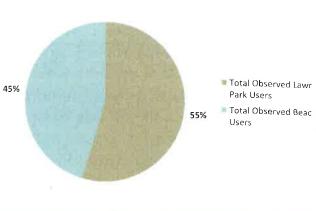
COASTAL ROUTE BIKE PATH

PARKING LOT

Key Observations:

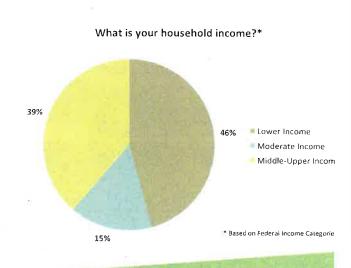
Approximately 650 visitors were observed on average in the afternoon enjoying the beach and park areas: no attempt was made to tally overall total daily usage as part of this survey. These observations and survey results indicate substantial overlap of use between the lawn and sandy beach. During peak afternoon use periods, it was observed that on average approximately 55% of Goleta Beach County Park visitors west of the Pier utilize developed park facilities and the lawn, while 45% use the sandy beach. Early morning visitors were primarily observed fishing, exercising, walking dogs, and beach going. Families and large groups arrived in the afternoon to claim picnic tables and set up reserved group areas for gatherings. By midafternoon, the parking lots and bicycle parking areas were heavily utilized with an observed high turn-over rate.





Visitor Voice

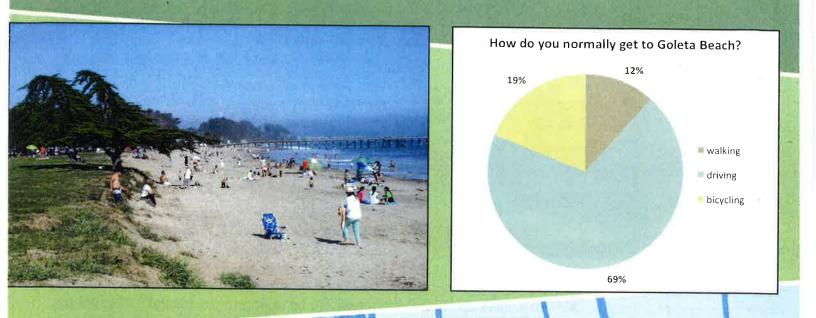
"I should come more often. It i. beautiful. Close to my home Easy parking."



Key Survey Results

Visitors come to Goleta Beach mainly for the beach access area and park and lawn areas though some prefer the water access area. The most popular activities involve use of the park facilities, including the lawn, BBQs and picnic tables, playground, group areas, and horseshoe pits. Survey results indicate that while 35% of respondents use the park for beach and wate access, **65% visit Goleta Beach to use all aspects of the park with 20% using the park and lawn area exclusively** This survey also captured a snapshot of the community of Goleta Beach visitors, including families students, and other user groups. Visitors range widely. For example, 31% of survey respondents consider themselves to be Hispanic and approximately 46% of respondents were from lowe income households. Lower income households visit Goleta Beach an average of 9 times more often per yea than other households. This spectrum of visitors indicates the wide range of needs Goleta Beach County Park serves

Observed Use of Goleta Beach's Key Recreational Areas



Visitor Voices

"I enjoy having a playground near the beach, as we love both! I also appreciate the ample parking :)"

"Beautiful scenic view with grass, sand, and free parking! Gorgeous here!"



A South Coast Destination for Coastal Access:

Goleta Beach County Park is set apart from other coastal access points by the large amount of free parking and the expansive lawn that transition seamlessly to the clean sandy beach and shoreline. The park offers a unique combination of natural coastline and public park facilities, such as BBQ grills, picnic tables and benches, a playaround, and public restrooms. These features make Goleta Beach a family friendly destination that attracts diverse populations who use the park. 80% of Goleta Beach visitors are local Goleta and Santa Barbara residents with the remaining 20% traveling from more distant locations, including Lompoc, Santa Ynez Valley, and Los Angeles County. Goleta Beach provides over 70% of the free developed coastal access parking for the Goleta Valley community. Based on survey responses, a majority of visitors drive to reach Goleta Beach, but surprisingly, **31%** of respondents ride bikes or walk. The coastal bike trail connecting Goleta Beach to surrounding neighborhoods and UCSB provides excellent access for these modes of transportation. A total of 60 respondents noted that free parking and ease of access to the coast were key values in their use of Goleta Beach.



Did You Know?

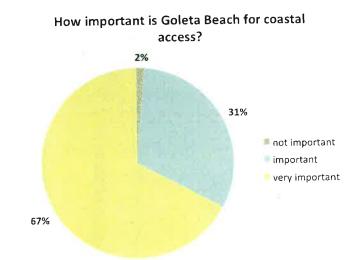
The Santa Barbara County Parks Division manages 8,652 acres of public land comprising 24 parks, 2 camping parks, 85 miles of trails, and 44 open spaces. Some of these include Jalama Beach, Hendry's Beach, Goleta Beach, and Waller Park. Goleta Beach County Park is our busiest park providing numerous amenities to **approximately 1.5 million visitors a year.**

Overwhelmingly, survey respondents report that Goleta Beach County Park is very important for their own coastal access. **61% of visitors consider Goleta Beach to be their primary coastal access point**, even with other coastal access available in nearby communities. While there are other places in Santa Barbara County to access the shoreline, 98% of respondents report that Goleta Beach County Park is essential for coastal access due to its proximity, ease of access, free parking, and range of amenities. Maintaining the wide range of amenities at Goleta Beach County Park ensures continued coastal access and recreation for all users, including those who need access to affordable coastal recreation opportunities the most.

Visitor Voices

"This is one of the only beaches that has trees, and sand in a very close proximity. This makes this beach very special for our family"

"It is a true Santa Barbara treasure. Nature, clean water, beach, natural life in ocean, close to city, picnic areas, ability to park"



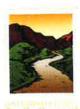
Special thanks to the Santa Barbara County Trails Council for its support in conducting this survey!

Survey and brochure funded through the Office of Second District County Supervisor Janet Wolf. Survey conducted by Marie Laule, Vivon Crawford, Perri Wolf, Carly White, Jennifer Brown, Julia Pujo, and Sharon Zertuche. Research Report prepared by the Santa Barbara County Trails Council with exceptional assistance from Julia Pujo. Graphic Design services provided by Graphic Entitlement Design Company.











CIAP Project Narrative

STATE OF CALIFORNIA COASTAL IMPACT ASSISTANCE PLAN

SANTA BARBARA COUNTY

PROJECT TITLE:

Goleta Beach Park Coastal Access and Recreational Enhancement (Tier 1)

Santa Barbara County Community Services Dept.

Juan M. Beltranena, AIA

610 Mission Canyon Road Santa Barbara, CA 93105

ibeltranena@SBParks.org

(805) 568-2470

(805) 568-2459

PROJECT CONTACT INFORMATION:

Name of Primary Staff Contact: Address:

Phone: Fax: E-mail:

PROJECT SUMMARY:

Location: Duration: Total Estimated Project Cost: Total CIAP Funds Requested: Amount/Source of Remaining Funds: Sandspit Road, Santa Barbara, CA 48-60 months \$9,732,000 \$1,501,322 \$1,600,000; FEMA (secured) \$ 615,000; US Army Corp of Engineers (secured) \$6,015,678; currently unsecured 2010 - \$659,492 2011 - \$563,492 2012 - \$ 99,082 2013 - \$179,256

Estimated CIAP Spending per Year:

Project Background and Description:

The purpose of this project is to provide environmentally sound, long-term protection of the park and sandy beach area. Over the last 15 years, Goleta Beach County Park has experienced incremental loss of facilities and infrastructure due to the loss of sandy beach area from El Niño type storm and wave activity. Since 1998, the park has suffered severe damage involving loss of sandy beach area, critical beach access parking and park facilities and infrastructure. Parking on the west end of the park has been lost and underground utilities have been threatened. In response to the storms, emergency rock revetments have been constructed and beach nourishment has occurred to protect the park. Additionally, the county placed over 50,000 cu yds of sand to nourish the beach and protect the facilities from further erosion during winter storms.

Page 1

CIAP Project Narrative

The proposed project is the removal of 43,100 square feet (0.98 acres) of existing paved parking lots 6 and 7; establishment of a transportation and utility corridor outside the "coastal process zone;" relocation of existing utilities and a portion of the Coastal Bike Trail to the corridor; protection of the existing Goleta Sanitary District sewer ocean outfall vault; removal of existing rock revetment with expired permits at the western end of the park; all requiring approximately 3,690cy of cut and 3,670cy of fill; addition of new bike racks; and import and spreading of approximately 1,850cy of sand to create a beach environment where the parking lots were removed.

Goleta Beach County Park, visited by more that 1.5 million visitors each year, is the most heavily used park within Santa Barbara County. This 29 acre park is a full service facility similar to other beach parks along the Santa Barbara County coastline, and includes group and family picnic facilities, children's play ground, restrooms, ranger residences, the Goleta Beach fishing pier, horse shoe pits, food and beverage service provided by the Beachside Bar & Café and parking to accommodate visitation for approximately 590 cars. The Atascadero Bikeway, an important part of the De Anza Coastal trail which travels through Goleta Beach Park, also provides access to the park.

This proposal (Goleta Beach 2.0) seeks to accommodate Managed Retreat while protecting the Park's facilities. It involves the relocation of a several utility lines, the Coastal Bikeway, the removal of two parking lots and the placement of geotextile fabric to protect the Goleta Sanitary District's outfall vault.

The project is designed to implement the state Coastal Act and the County's Local Coastal Program with goals to protect natural resource areas and sensitive habitats while promoting public access and enhancing and maintaining coastal dependent and coastal related recreational uses. Specifically, the park facility is surrounded by sensitive habitats with associated buffer setback areas of the Goleta Slough wetlands, inter-tidal zone and native vegetation located to the north, west and east. Each of these sensitive habitats represent significant constraints to relocation or reorientation of park facilities associated under any beach sand stabilization scenario, including the managed retreat option where rock revetment is removed and no sand nourishment is replaced when erosion occurs. Additionally, the existing utility lines and infrastructure bisecting and immediately northward of the park (high pressure gas line, sewer, water, reclaimed water and Caltrans Highway 217 right-of-way easement) represent legal and jurisdictional impediments and liability to any design options that present risk of loss from strong winter storm event erosion and thereby threatening public health, safety and welfare. Further, an important segment of the California Coastal Trail connecting Western Goleta Valley with the South Coast, serving recreational users as well as alternative transportation to the UCSB and Isla Vista communities, is in jeopardy if significant erosion at the beach park continues.

The project entails the following components:

Task 1 – Environmental review and permitting

CIAP Project Narrative

Coastal Commission staff and representatives from the County Parks and Planning and Development departments met to discuss the status of County's Goleta Beach Park soon to expire emergency permit, and the beach sand stabilization options. The meeting was fruitful in that both staffs were able to clarify technical questions regarding the components shore stabilization design and discuss the importance of the existing beach park facilities to provide public access and recreational opportunities consistent with the County's LCP and the Coastal Act.

County staff and Coastal Commission staff also discussed the appropriate permit path based upon 1) scope of the beach sand stabilization system within the Commission's original jurisdiction; and, 2) a timely permit application submittal to preclude enforcement action on the expiring emergency permit. Commission staff clarified that the County could apply directly to the Commission for permit action. This permit path is beneficial since it provides Commission involvement in the sand stabilization design, predominately within original jurisdiction, and any necessary balancing of Coastal Act policies to stabilize the sand and protect the beach park. Based upon Commission concurrence, the County will complete the local process to define the project and submit an application for a Coastal Development Permit.

Coastal Commission action on the sand stabilization does not require the preparation of an Environmental Impact Report or other California Environmental Quality Act (CEQA) document. (Pub. Res. Code Section 21080.5; CEQA Guidelines Sections 15250, 15251(c)). Further, the County's action to submit an application to the Coastal Commission is not subject to CEQA because this activity is preempted by state law and is not a project for purposes of CEQA. (Pub. Res. Code Section 21080.5, CEQA Guidelines section 15060.) The permit application, however, will include an environmental analysis based on the beach sand stabilization environmental analysis that will be prepared anew; that analysis would enable the Commission to comply with their own environmental review requirements under their Certified Regulatory Program (CEQA Guidelines Sections 15250, 15251(c). Once the Commission takes action on the permit application, the necessary County permit actions would then be subject to review and approval and the appropriate CEQA document would be considered and certified as part of the County's discretionary permit action. The required County permits include a Conditional Use Permit and Development Plan, both due to the Recreation Zone designation of the site. The environmental analysis submitted to the Commission would be part of any subsequent CEQA document prepared for future County approvals.

Task 2: -- Solicitation of bids.

Upon approval, public bid solicitation will occur in a manner consistent with Public Contract Law for a period of time sufficient to allow multiple contractors to competitively bid the project. Bidding will be widely advertised in plan rooms and local news papers to increase the amount of prospective bidders for this type of specialized project. Questions from contractors and prospective bidders will be processed and responded to through the RFI process.

Task 3 – Initial relocation of utilities

This task involves the relocation of existing utilities and other facilities out of the prime coastal erosion zone, including the Coastal Trail Bikepath, the removal of two existing parking lots (approximately 150 spaces).

Task 4 – Protection of structures and minor reconfiguration of circulation

The project will protect in place the Goleta Sanitary District's underground sewer ocean outfall pipe and vault by constructing a geo-textile core dune and buried cobble berm (dynamic cobble revetment) protective structure. The structure is proposed to be approximately 250 LF extending from the existing permitted rock revetment near the restaurant to at least 50 LF beyond the vault. The dune will be approximately 4.5 feet tall and buried approximately 5 feet below grade. Minor reconfiguration of the circulation in the Park's lot will be necessary to accommodate the new geometries in the park and because a new replacement entrance bridge will have to be constructed due to the structural deterioration of the existing bridge.

Task 5 – Monitoring and evaluation

Following the work detailed above, a final park re-configuration of circulation and remaining parking lots will be necessary because a replacement bridge for the entrance to the Park will be constructed with Federal Highway Funds to replace the existing damaged bridge.

Measureable Goals and Objectives

Performance criteria for success of the erosion control include: 1) The beach stops receding during the winter storms and no additional structures are lost or placed in jeopardy; 2) the beach advances at least 100 feet in the central portion of the Beach Park and stabilizes in position, with fluctuations within of 50% of the nourished width over time; 3) the sandy beach extends west of the Pier to at least the west Park boundary; and 4) down coast erosion east of the Slough mouth is not increased by the project. Measurements of the performance are beach profiles. Beach profiles should be measured bi-annually for at 3 to 5 years, depending on how long it takes for the shoreline to reach an equilibrium state according to the results of profile data analyses.

COORDINATION WITH OTHER FEDERAL RESOURCES AND PROGRAMS

On-going coordination of this project with other Federal Agencies includes coordination with US Army Corps of Engineers (USACE) for a potential 404 permit (USACE has not yet determined if one is necessary); coordination with US Fish and Wildlife Service (USFWS) because of the sensitive habitat areas surrounding the Park; coordination with FEMA has also been on-going to address the impacts of storm damage from successive EL Niño storm events. FEMA funded the nourishment of the beach with approximately 50,000 cu. yds. of sand in 2011. Funding form FEMA for the project is on stand-by pending the approval of a CDP from the California Coastal Commission.

CALIFORNIA OCEAN PROTECTION COUNCIL

This project meets the intent of the "Guiding Principles of the California Ocean Protection Act" identified within the Five Year Strategic Plan 2006; more specifically "Making aesthetic, educational, and recreational uses of the coast and ocean a priority and **D. Physical Processes** and Habitat Structure; Objective 2 Regional Sediment Management as a key element of the project includes the placement of beach sand within the project area to create a larger sandy beach area. It also meets objective 5.d. by implementing strategies to balance beach access with resource protection.

AUTHORIZED USES

This project is consistent with CIAP Authorized Use #1, projects and activities for the conservation, protection, or restoration of coastal areas. In addition to allowing an existing recreation use to be retained, a primary component of the long term protection project is the restoration and sustainability of a wide sandy beach area, coastal strand community and other associated beach habitat.

Goleta Beach Park is adjacent to the tidal wetlands area of Goleta Slough. This project would occur within a developed, highly used beach area and would not increase activities in sensitive wetland habitats. Removal of the parking lots and protection of beach park facility will continue nature study, bird watching and education uses that currently exist to the east and north of the beach park. The erosion protection structures would be located immediately adjacent to Goleta Sanitary District's outfall vault, in front of the eastern parking lot. The project would not involve new development that would affect Goleta Slough or encroach into buffer areas for the slough. Existing beach sand nourishment is authorized under permit to BEACON and Goleta Slough mouth dredging is currently permitted to the County Flood Control District where ongoing maintenance of tidal flow ensures continued biological productivity of the wetland. The maintenance of a wider beach at Goleta would enhance the environment for many species including intertidal invertebrates, shorebirds including the Federal threatened western snowy plover, and grunion, which spawn on sand beaches.

No long-term adverse effects to biological resources and productivity or marine water quality would occur. Section 30233(a)(4) of the Coastal Act allows dredging "[i]n open coastal waters, other than wetlands ... [for] the placement of structural erosion control structures for public recreational beaches that provide public access and recreational opportunities." Coastal Act provision, 30235 directs that protective shoreline devices "...shall be permitted when required to serve coastal-dependent uses or to project existing structures or public beaches in danger of erosion, and when designed to eliminate or mitigate adverse impacts..." The project is consistent with this policy because it satisfies both criteria by protecting the public beach and coastal-dependent and coastal-related uses with structural design features that accommodate shoreline sand movement while limited impacts to the surrounding sensitive habitats.



May 9, 2015

California Coastal Commission 89 South California Street, Suite 200 Ventura, CA 93001

Re: Goleta Beach Revetment (W22a)

Dear Chair Kinsey and Honorable Commissioners:

This letter and attached post cards are submitted by the Environmental Defense Center (EDC) on behalf of the Santa Barbara Surfrider Foundation. Surfrider is dedicated to the protection and enjoyment of the world's ocean, waves and beaches through a powerful activist network. EDC is a non-profit public interest environmental law firm working to protect and enhance the Central California Coast environmental through education, advocacy and legal action.

Attached please find 308 post cards supporting protection of Goleta Beach through removal of the damaging rock revetment seawall which according to experts cited to by EDC and Surfrider is already causing significant beach erosion and related impacts to sand supply, recreation, access, habitat and views.

These post cards augment 391 post cards submitted in 2014 to the Santa Barbara County Board of Supervisors, previously submitted to the Commission and a petition with 35 signatures submitted to the Commission on May 8, 2015.

Thank you for your attention to these post cards.

Sincerely,

Brian hautwen

Brian Trautwein Environmental Analyst / Watershed Program Coordinator

Exhibit 2b Addendum CDP Application 4-14-0687

906 Garden St. Santa Barbara, CA 93101840 CoPHONE (805) 963-1622FAX (805) 962-3152PHONE (805) 963-1622FAX (805) 962-3152Www.EnvironmentalDefenseCenter.org

840 County Square Dr. Ventura, CA 93003 PHONE (805) 658-2688 FAX (805) 648-8092



Earth Day Pledge - April 2015

Another Voice to Protect Goleta Beach

Dear California Coastal Commission,

I am writing to ask you to support the Surfrider Foundation's and Environmental Defense Center's Goleta Beach Restoration Plan to protect Goleta Beach Park by moving sewer, gas and utility lines, a bike path and parking spaces out of the critical erosion zone and by expanding the beach by an acre. The lines should be moved inland to avoid sewage spills and the unpermitted rock revetments should be removed to maintain and enhance the Park and Goleta Beach for future generations. Please...

KEEP THE "BEACH" IN GOLETA BEACH.

Sincerely,

We will notify you Beatrix JimenezMts for
(Sign)about the hu(Print Name)
blatrix Qumail.vcsb.eduG5.55 Picasso Kd, Unit 7, Isla Uista, LA
(Address)G5.55 Picasso Kd, Unit 7, Isla Uista, LA about the hearing!

Earth Day Pledge - April 2015

Another Voice to Protect Goleta Beach

Dear California Coastal Commission,

I am writing to ask you to support the Surfrider Foundation's and Environmental Defense Center's Goleta Beach Restoration Plan to protect Goleta Beach Park by moving sewer, gas and utility lines, a bike path, and parking spaces out of the critical erosion zone and by expanding the beach by an acre for everyone to enjoy. The lines should be moved inland to avoid sewage spills and the unpermitted rock revetments should be removed to maintain and enhance the Park and Goleta Beach for future generations. Please...

KEEP THE "BEACH" IN GOLETA BEACH.

Sincerely,

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(Email		-	-	-			_	-

13 Del Playa Dr, Goreta

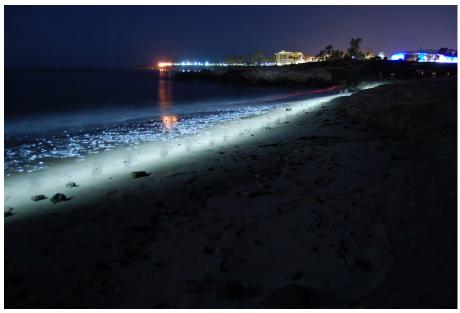
We will notify you about the hearing!

Fact and Fiction at Goleta Beach Park

May 8, 2015



Goleta Beach Park on May 1, 2015, at 9:25 AM. Tide is +3.9 ft. Normal tides can reach +7.2 ft.



Grunion run on May 7, 2015, at 12:05 AM stops short of the west end of Goleta Beach. Spawning habitat in front of the exposed revetment has been eliminated by inundation.



Exhibit 2c Addendum CDP Application 4-14-0687 The Santa Barbara Chapter of the Surfrider Foundation has been working for more than a decade with our partners at the Environmental Defense Center to protect Goleta Beach Park from the negative effects of coastal armoring. Enhancing beach access is a primary component of Surfrider Foundation's mission, and we believe the "beach" and the "access" are both essential. We support an adaptive management program for Goleta Beach that will enable the public to continue enjoying both the park facilities and the sandy beach. As we illustrate below, the existing rock revetment has eliminated part of the beach, and is doing significant environmental damage. The comment letter prepared on our behalf by the Environmental Defense Center offers an alternative to the staff recommendation that we believe will result in a better experience for visitors, compliance with environmental law, and a safer and more visually appealing park.

Organizations that support retaining the unpermitted rock revetments at Goleta Beach Park make several claims, based on a deeply flawed environmental impact report, that understate or fail to acknowledge significant negative effects these structures are having and will have on the park and the coastal environment. Among these claims are:

- that the revetment is and typically remains buried, and will be most of the time between now and the year 2050;
- that the revetment is set back far from the surf zone;
- that the revetment can and will protect recreational amenities;
- that the revetment is made only of rocks;
- that the hazard posed by an exposed revetment can be mitigated with fencing;
- and that the revetment has no significant negative environmental impacts.

The photos below can be used to evaluate these claims.

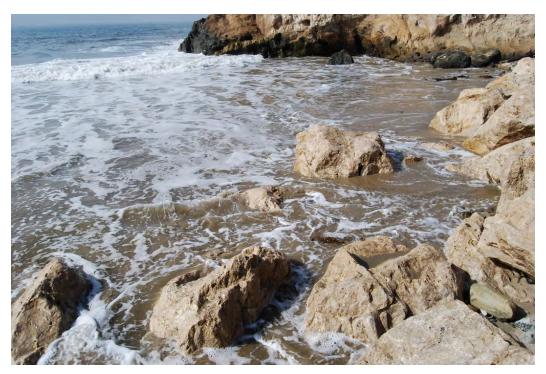
Is the revetment buried?



Goleta Beach west end at low tide (+0.8 ft). April 28, 2015, at 1:08 PM. Only a narrow strip of dry sand remains for recreation. The exposed revetment is readily accessible to curious children.

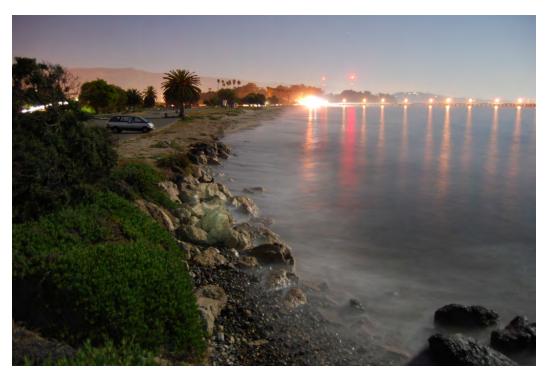


Goleta Beach mid-park revetment on May 1, 2015, at 9:39 AM. Rock remains exposed well over one year since the last major storm.

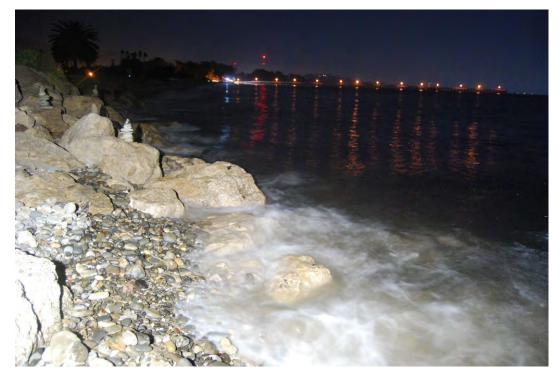


Is the revetment far from the surf zone?

Goleta Beach west end on May 1, 2015, at 9:21 AM. Tide is +3.9 ft. Normal tides can reach +7.2 ft. Beach has been eliminated by placement loss, passive erosion, and scouring.



Goleta Beach Park at +5.4 ft high tide on May 3, 2015, at 9:56 PM. 30 second exposure shows lower revetment and western beach submerged.



Goleta Beach revetment at +5.2 ft high tide on May 2, 2015, at 9:33 PM. One second exposure from the west end of the park.



High water line following +5.5 ft high tide on May 6, 2015, at 12:00 AM. The entire length of parking lot 7 is subject to wave attack at high tide.



Goleta Beach revetment at +5.2 ft high tide on May 2, 2015, at 9:37:27 PM. 6 second exposure near west end of park.



Goleta Beach revetment at +5.2 ft high tide on May 2, 2015, at 9:37:43 PM. 6 second exposure near west end of park.



Goleta Beach mid-park revetment on May 5, 2015, at 12:08 AM. High water line at toe of buried rock following +5.5 ft high tide.



Goleta Beach mid-park revetment on May 4, 2015, at 10:46 PM. High water line following +5.5 ft high tide. EIR predicts no significant exposure before 2050. +6.3 ft tide due this Sunday, May 17, at 9:44 PM.



Can the revetment protect the developed area of the park?

Haphazard revetment fails to protect parking lot 7. Note large concrete blocks at lower left and center of photo.



Parking lot undermined at gap in west-end revetment.



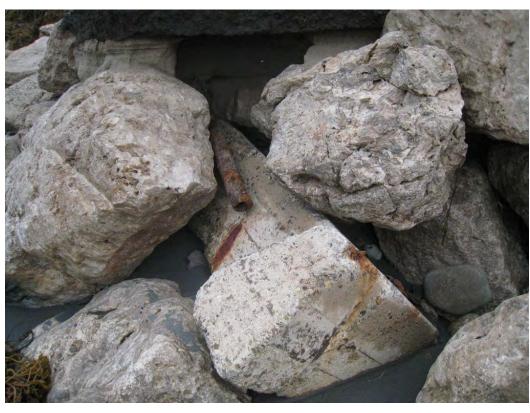
Revetment does not prevent erosion under parking lot 7.



Large pieces of asphalt fall from parking lot 7 into the surf zone.



Kelp landward of restrooms after March 1, 2014 storm during +5.6 ft high tide. Normal tides can reach +7.2 feet. EIR predicts this degree of runup only for "100-year wave event." Revetment was easily overtopped.



Is the revetment made only of rocks?

Concrete, rusty pipe, and rebar in Goleta Beach Park west end revetment.



Debris and pipe in the Goleta Beach Park west end revetment. Concrete refuse is a significant fraction of revetment material.



Concrete and rusted rebar in the Goleta Beach Park west end revetment.



Dangerous rebar in the Goleta Beach Park west end revetment.



Debris washed out of Goleta Beach Park west-end revetment. Staff report condition 2.D.4 requires removal of unsafe debris, but condition 2.D.1 allows "other debris" to be redeposited on revetment.



Can fencing mitigate the hazard posed by a revetment?

Santa Barbara County Parks agrees that buried revetment is dangerous. Unsightly fencing blocked Channel Islands views for months in 2005.



Child ignores safety fencing in 2005.



Goleta Beach Park visitors ignore safety fencing after March 1, 2014 storm. Fortunately for the airborne child, there was no significant mid-park revetment exposure. The park was protected only by sand.



Father steps in when fencing fails.

Los Angeles Times

Firefighters free boy trapped in boulders at Orange County beach *July 1, 2011 + 7:23 am*



A teenage boy was rescued after his leg became trapped under boulders, including one weighing about 1,000 pounds, at Aliso Creek Beach.

Lifeguards reported the Monday incident to the Laguna Beach Fire Department, Division Chief Dan Stefano told the Huntington Beach Independent.

The Aliso Viejo boy, either 14 or 15 years old, was climbing the rocks when the sand gave way and rocks collapsed around his leg.

"The biggest challenge was that his entire thigh was pinned," Stefano said.

He was extricated after about an hour and taken to Mission Hospital in Mission Viejo.

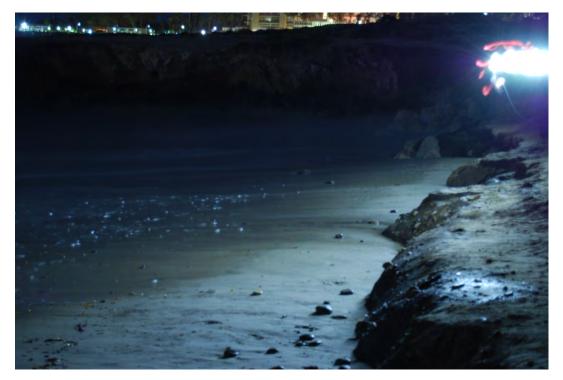


Does the revetment have no significant negative impacts?

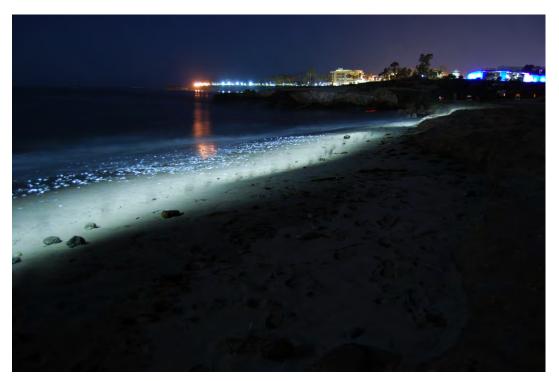
Grunion run at Goleta Beach on May 6, 2015, at 11:58 PM.



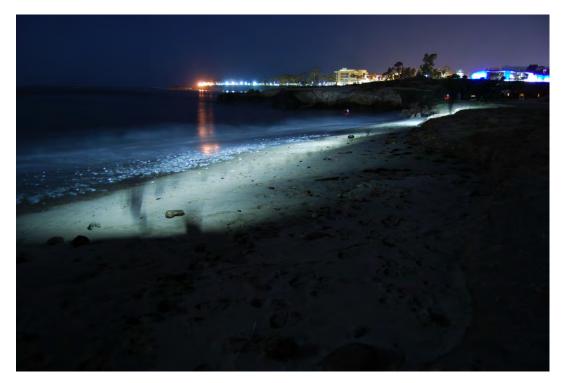
California Grunion spawn on south-facing beaches below Point Conception.



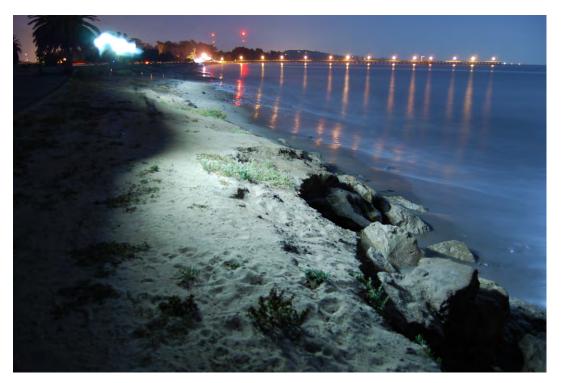
West end of Goleta Beach on May 5, 2015, at 11:33 PM. No grunion are present in front of the exposed revetment.



Grunion run at Goleta Beach on May 7, 2015, at 12:06 AM. West-end revetment has eliminated the upper beach, destroying spawning habitat.



Grunion run at Goleta Beach on May 7, 2015, at 12:07 AM. West end of beach is inundated. 66 second exposure.



View east along Goleta Beach on May 7, 2015, at 12:15 AM. Grunion can be seen spawning beyond the end of the exposed revetment. We agree with Coastal Commission staff that the best solution to the erosion problem at Goleta Beach Park is adaptive management. Clearly, however, the details of the staff recommendation are based on misinformation and a deeply flawed analysis of the present and probable future impacts of the Goleta Beach revetment.

We urge you to find an alternative to the staff recommendation that will immediately address the severe problems caused by the west-end revetment, and will trigger timely and effective mitigation when and if similar issues arise elsewhere in the park. To do any less would be inconsistent with the Coastal Act, with CEQA, and with common sense.

Please note: the photographs in this document have been scaled down, and in a few cases cropped to reduce height, but are otherwise unaltered. High-resolution originals will be provided upon request. Send requests to

surfrider@lipman.org

May 8, 2015

Hon. Steve Kinsey, Chair Effie Turnbull-Sanders Wendy Mitchell Hon. Martha McClure Hon. Erik Howell Dayna Bochco Mary Shallenberger Mark Vargas Hon. Carole Groom Hon. Gregory Cox Jana Zimmer California Coastal Commission 89 S. California Street Second Floor Ventura, CA 93001

Re: Comments Opposing Approval of Goleta Beach Revetments, Application 4-14-0687, Agenda Item W22A-5-2015

Dear Chair Kinsey and Commissioners:

Thank you for the opportunity to provide comments on the project in CDP Application no 4-14-0687 proposed by the County of Santa Barbara.

I am writing to you to express my concerns about the application to permit 1200 feet of unpermitted rock revetments to remain in place at Goleta Beach County Park. I urge the Commissioners to vote to uphold the Coastal Act and protect our vital coastal resources by asking the applicant to develop project alternatives that will cause significantly lower risk of lasting environmental damage and impacts than permitting the unpermitted revetments at Goleta Beach County Park to remain.

As a marine ecologist with over 30 years of experience studying the ecology of California's sandy beaches, I have first hand experience with the resources, function and service provides by our open coast sandy beach ecosystems. My research focuses on the responses of sandy beach ecosystems, including food webs made up of invertebrate animals and their predators, the shorebirds, to the dynamic physical and biological characteristics of sandy beaches and to a myriad of human impacts. I have conducted ecological studies at Goleta Beach since 1982, and write to you regarding the serious ecological impacts of seawalls and coastal armoring in general and specifically with respect to Goleta Beach.

California's populous coast is experiencing large scale alteration associated with increasing human development and use. The importance of incorporating valid and robust scientific information into decision-making processes for our coastline including open coast sandy beaches can not be overemphasized. The application (4-14-0687) for this permit does not represent the best available science and fails to accurately describe current conditions and coastal resources present at Goleta Beach County Park.

Based in part on our research in Santa Barbara County, the significant negative effects of coastal armoring on the ecology of sandy beaches and coastal strand habitats are now being recognized around the world. Our recent research on beaches in southern Santa Barbara and

Exhibit 2d Addendum 1 CDP Application 4-14-0687 Ventura Counties, motivated largely by the unpermitted armoring installed at Goleta Beach County Park in recent decades, has documented strong negative ecological impacts of armoring on beach ecosystems. These impacts include significant losses of habitat, coastal strand and dune vegetation, biodiversity, connectivity and food web structure, including invertebrates that result in significantly fewer shorebirds, gulls and seabirds using armored sections of the shoreline for foraging and roosting. These impacts of armoring extend from the very base of the food web to the top levels and are likely to impact many of the other ecosystem functions and services provided by beaches. Our recent work showing that coastal strand and foredune vegetation is eliminated in front of seawalls due to habitat loss clearly extends the impacts of armoring into a habitat classified as ESHA by the state of California.

Coastal armoring structures, such as the two unpermitted revetments proposed to remain at Goleta Beach, cause long term ecological impacts to beach and dune ecosystems. By restricting retreat of the shoreline and directly covering habitat, these revetments have caused major environmental impacts to the beach and dune ecosystems at Goleta Beach. These include greatly reduced beach widths, the loss of intertidal, coastal strand and foredune habitats, and significant declines in biodiversity, productivity and ecosystem functions. Furthermore, the loss of the upper beach, coastal strand and dune zones caused by the revetments restricts the ability of the beach to accumulate new sand that can form protective berms and dunes to buffer erosive forces, further exacerbating the narrowing of the armored beach.

Impacts of armoring are most apparent at the upper levels of the beach where the zone of damp to dry sand can disappear entirely in front of armoring structures at all tide heights. This is presently the case for the exposed westernmost segment of revetment at Goleta Beach. This reduction in habitat alone has decreased biological diversity and abundance, reduced shorebird feeding habitat and eliminated grunion spawning habitat along this revetment, all of which are of specific concern at Goleta Beach County Park.

The application states that the unpermitted revetments are not exposed. At this writing the westernmost section of one of the unpermitted revetments at Goleta Beach has been fully exposed and vigorously interacting with waves and tides since March of 2014. This is in contrast to the assertions by the applicant that the revetment is covered with sand and not interacting with coastal processes. Due to the ongoing exposure of the rock revetment to waves and tides, there is no upper intertidal zone remaining along the exposed westernmost section of rock revetment, this has eliminated habitat and wrack resources for upper intertidal invertebrates, largely wrack-associated taxa, causing an ~40% decline in biodiversity of this part of the shoreline at Goleta Beach. The loss of upper shore zones caused by armoring means that suitable habitat for grunion spawning had been eliminated along the exposed westernmost section of rock revetment. The wrack-associated prey resources and foraging habitat used by nesting Belding's Savannah Sparrows, a state listed species, at the west end of Goleta Beach has been eliminated by the exposed rock revetment.

In addition, no evidence of dune beetles (tracks) was present along the exposed westernmost section of rock revetment on May 7th, 2015, again suggesting the loss of upper shore and coastal strand/foredune habitat in this section of beach where the revetment is exposed to waves and tides.

The loss of the dynamic coastal strand and southern foredune habitat above the active intertidal zone is another important concern regarding coastal armoring at Goleta Beach and elsewhere. As in the intertidal zone, coastal armoring can eliminate higher shore zones, the supralittoral and coastal strand/foredune zones, on a beach through the placement of the armoring material,

by altering depositional processes and narrowing the beach. Coastal strand/southern foredune habitats are considered ESHA by the State of California. In addition negative impacts of revetments and seawalls on native plants and associated insect and vertebrate fauna of this zone can affect a number of species of concern, (e.g. Red Sand Verbena, Dunedelion, Western Snowy Plover, Globose Dune Beetle, and California Legless Lizard).

The application and staff report states that coastal strand and southern foredune habitat present at Goleta Beach County Park is too fragmented in nature and limited in extent in the area of the proposed project to meet the Coastal Act definition of an Environmentally Sensitive Habitat Area (ESHA) but is an area of special biological significance. I suggest that this description of dynamic habitat occupied by coastal strand and southern foredune vegetation on the Santa Barbara County coast may not be adequate. Coastal strand/southern foredune habitat is so rare in southern Santa Barbara County that any remnant, including that found at Goleta Beach County Park is worthy of the highest levels of protection. As of May 7, 2015 I found clear evidence of remnant perennial coastal strand/southern foredune vegetation growing and reproducing at Goleta Beach between the revetment/dirt embankment and the parking lot/road in the western part of the park. This is despite the presence of a large amount of unsuitable fill soil in these areas. The native coastal strand/southern foredune vegetation present as of May 7, 2015 included red sand verbena (Abronia maritima), pink sand verbena (Abronia umbellata). beach salt bush (Atriplex leucophylla), beach burr (Ambrosia chamissonis) salt grass (Distichlis spicata a wetland species), and as well as abundant sea rocket. (Cakile maritima) and New Zealand Spinach (Tetragonia tetragonoides). The presence of multiple coastal strand/southern dune species including mature reproductive individuals at Goleta Beach suggests that it could be possible to determine that this would be ESHA. Where the western revetment is not exposed and interacting with waves and tides and where no revetment is present there were abundant tracks of dune beetles (Coelus spp.) located both above and at the toe of the dirt berm or revetment. By restricting the dynamic connectivity between the sandy beach and the remaining coastal strand/southern foredune habitats, the revetments in place now are in fact restricting the development and impacting the health of the rare coastal strand/foredune habitat remaining at Goleta Beach rather than protecting it as suggested by the applicant.

I highly commend the coastal commission staff on the inclusion of several special conditions including a strong adaptive management approach to the 20 year lifespan of the revetments and the restrictions on beach grooming and wrack management at Goleta Beach County Park. This is very progressive approach that needs to be a part of the permit conditions and language for any coastal armoring structure. Unfortunately for over a year prior to any approval of a new permit, the exposure of portions of the revetment at Goleta Beach has already reached the state that would trigger the reevaluation of its condition with regard to impacts stated in the special conditions.

I would like to express concern about the ecological impacts of the condition of keeping the revetment buried with sand for the life of the permit. Achieving this condition could result in ongoing and persistent negative ecological impacts to the coastal strand/southern dune habitat and the upper zones of the beach caused by burial and the use of heavy equipment to move and dump sand on the rocks. Depending on the source and grain size characteristics of the sediment used to cover the rocks, this process can cause mortality of other intertidal animals and impact the beach food web. Although a coastal development permit will be required for this to occur, there is no analysis of the potential impacts to habitats, biodiversity and species of concern caused by the activity of burying the rocks in sand provided in the application.

I suggest that if this application goes forward that an additional special condition be considered that prohibits sand berm building with heavy equipment at this beach during the life of the

permit. This proposed additional special condition is due to the severe ecological impacts caused by this activity. These impacts include high mortality of intertidal animals at a time of year when prey resources are already limiting for wintering shorebirds.

Due to the ongoing and future significant ecological impacts from the existing Goleta Beach rock revetments and the effort and impacts associated with attempting to keep 1200 feet of these structures buried with sand, all of which have not been adequately analyzed or addressed in this application, I strongly recommend that the application to have the current revetments remain in place be denied at this time. I suggest to you that comprehensive study and analysis of ecological impacts and sustainable alternatives, such as managed retreat, are critically needed to save the sandy beach ecosystem and coastal resources at Goleta Beach County Park.

In summary, I hope you will to vote to protect and preserve California's coastal resources and deny this project in its current form. Thank you for the opportunity to comment on this project application and for your consideration of my input. I appreciate the challenges you face and am very grateful for your work to balance the needs of seaside residents with the highest level of protection of our coastal resources on the California coast.

Sincerely,

412

Jenifer E. Dugan, PhD Associate Research Biologist Marine Science Institute University of California Santa Barbara, CA 93106

Santa Barbara Audubon Society, Inc.

A Chapter of the National Audubon Society



5679 Hollister Avenue Suite 5B, Goleta, CA 93117

(805) 964-1468

No. 4-14-0687

May 13, 2015

Deanna Christensen Coastal Program Analyst California Coastal Commission

Re: <u>Opposition</u> to County of Santa Barbara Coastal Development Permit for Rock Revetment at Goleta Beach County Park

Dear Ms. Christensen and Commissioners:

Santa Barbara Audubon Society (SBAS) is a chapter of the National Audubon Society with approximately 1100 members in Santa Barbara County. Our mission is to help conserve and restore the natural ecosystems and biological diversity of the Santa Barbara area, and to connect people with birds and nature through education, science-based projects, and advocacy.

SBAS has previously commented on the Draft EIR¹ for Goleta Beach. The thrust of that letter is that the CCC Staff report misjudges the extent of current beach loss and consequent loss of bird habitat as it recommends retention of the revetment. The conditions that would trigger reconsideration of the revetment are <u>already</u> met at the western end of Goleta beach. Given that, we urge the commission to override the staff recommendation and initiate more natural processes on Goleta Beach by removing the west-most parking spaces, sewer lines, and other utilities while providing softer approaches that allow the nutrient flow so essential to beach invertebrates, which in turn support Western Snowy Plovers and Belding's Savannah Sparrows.

SBAS is concerned that the unpermitted rock revetment at the west end of Goleta Beach acts like a seawall by redirecting wave energy down and sweeping beach sand out into the ocean. In fact, this is apparently already happening. Our visits to the west end of Goleta Beach Park show that the revetment is more often exposed than covered with sand. We find that the west end of the beach is now <u>entirely inundated</u> at more high tides than it was very few years ago. As a result, foraging habitat for the Belding's Savannah Sparrow and Western Snowy Plover is being eliminated. It should be obvious that <u>now</u> is the time to begin to deal with this problem, not to wait 10 to 20 years when sea level rise will have made it much worse.

We note that the CCC Staff report of 4/24/15 incompletely depicts Belding's Savannah Sparrow and Western Snowy Plover. Figure 4.3-1 shows Belding's Savannah Sparrows on the slough

http://www.SantaBarbaraAudubon.org

Exhibit 3 Addendum CDP Application 4-14-0687

 $^{^1}$ Comment letter on Goleta Beach Managed Retreat 2.0 Draft EIR 12 EIR-00004, 11DVP-00016 and 11CDP-00069, 30 August 2013

side, not the beach side of the western parking lot. It is the low beach amidst the flotsam where most active foraging occurs for both of these species.

In fact, the CCC staff has previously stated², "Any project at Goleta Beach must take into consideration and ensure the continued use of the area by the following sensitive species: globose dune beetles that occupy coastal strand habitat and have been identified in this habitat at Goleta Beach; Belding's Savannah Sparrows that live and nest in Goleta Slough and forage in the wrack at Goleta Beach (especially at the western portion of Goleta Beach); Western Snowy Plovers which have been identified near the slough mouth at the eastern end of Goleta Beach; red sand verbena, a coastal strand/southern foredune species that has been found at Goleta Beach; and southern tarplant, which tends to do well in disturbed coastal habitats, has also been identified at Goleta Beach." So the CCC staff has acknowledged that the Belding's Savannah Sparrow uses the wrack on the beach at the west end of Goleta Beach. SBAS has many records of the Western Snowy Plover using the west end of Goleta Beach as stated in SBAS comments on the DEIR.

In addition, our DEIR letter from 2013 points out that the most active period of Western Snowy Plover foraging is at night. We include below a section from the 2013 letter that should have resulted in surveys to determine the actual extent of nocturnal use by the Western Snowy Plover³. Fig. 4.3-1 shows the Western Snowy Plover at the slough area whereas our records show it most often seen towards the west end of the <u>beach</u>. So, we are dismayed that we supplied exhaustive information in our comments on the DEIR, but that information is not reflected in the CCC Staff report, which instead seems to rely on incomplete information from 2012.

The fact that food resources are sometimes observed at the west end of Goleta Beach should not be interpreted as an indication that the Belding's Savannah Sparrow and Western Snowy Plover are persisting well there. Rather, the pattern of resource occurrence indicates a low level of resource support and a minimal persistence of these species.

SBAS regrets the distortions that are perpetuated by the staff recommendations. We continue to see inflated estimates of human usage of Goleta Beach (it estimates an average of 4109 visits per day (the putative 1.5 million users/365 days, when we know that there is not even one day a year when the number of visits is so high. The average annual usage is probably closer to one-tenth the number stated.). It states that the distance to the nearest beachfront public park is more than 8 miles distant (when in fact Arroyo Burro beach is 5.4 miles away, Santa Barbara Shores is 3.5

² CCC Staff Comment letter on Draft Environmental Impact Report, Goleta Beach County Park Long-Term Protection Plan, Para. 8.g, Aug. 30, 2013.

³ Snowy Plovers forage locally (and presumably throughout their range) at night in nearly total darkness. We also know that they locally radiate from well-known day-use areas to other beaches at night. By reading tracks, feces, and feathers, D. Hubbard (pers. Comm.) documented many instances of overnight roosting and probable foraging between Coal Oil Point and Campus Point in Goleta in the 1990s. At about 11pm on 28 December 2004, six Snowy Plovers were observed sheltering adjacent to the parking bumpers in Lot 6 next to the beach during a nighttime rain storm. On 28 April 2006, A. Musante reported seeing a pair of Snowy Plovers foraging on the beach in front of the Beachside Café between 10pm and midnight.

miles, and Haskell's Beach is 4.5 miles away and there are many public access points in between).

We regret that the CCC staff report directly contradicts the directions the staff itself gave to the County in its letter dated August 30, 2013. At that time the CCC Staff urged the County towards a retreat scenario.

The staff report further sets aside the state mandate to conform to the predictions sea level rise.

The benefits of the very moderate alternative EDC has offered is that it:

- * Offers a more balanced recreational experience by reintroducing a natural feature of the beach environment, if only in the western part of the park,
- * Protects and augments the prey base for Western Snowy Plovers and Belding's Savannah Sparrows that now minimally use the west end beach,
- * It acknowledges that we are <u>now</u> at the point where the staff recommendation would require review of staff's conditions for the reauthorization of the revetment.

We hope the Commission embraces the EDC alternative as the appropriate compromise that creates a win-win situation for both sides in this contentious issue.

Finally, SBAS is concerned that the willingness of CCC staff to recommend the retention of revetment contradicts its advice in other settings; it contradicts the Coastal Act goal to prevent "direct loss of sandy and rocky intertidal areas that often have been found to be a critical component of the marine ecosystem"; and it makes it more difficult for future commissioners to uphold the policies espoused in the Coastal Act.

The Santa Barbara Audubon Society strongly opposes Santa Barbara County's proposed Coastal Development Permit for a Rock Revetment at Goleta Beach County Park. SBAS supports a Goleta Beach restoration plan that would add to the sandy beach while protecting the park and the existing beach. At-risk parking spaces, the bike path, and sewer lines should be relocated out of the surf erosion zone.

Yours truly,

Mark Holmgren Conservation Committee Santa Barbara Audubon Society

Stephen J. Ferry Co-President Santa Barbara Audubon Society

SALUD CARBAJAL First District Supervisor

JEREMY TITTLE Chief of Staff

ERIC FRIEDMAN District Representative

LISA VALENCIA SHERRATT District Representative



BOARD OF SUPERVISORS 105 East Anapamu Street, 4th Floor Santa Barbara, California 93101

TELEPHONE: (805) 568-2186 FAX: (805) 568-2534 www.countyofsb.org/bos/carbajal E-mail: Scarbajal@sbcbos1.org

COUNTY OF SANTA BARBARA

May 11, 2015

California Coastal Commission 89 South California Street, Suite 200 Ventura, CA 93001-2801

Dear Chair Kinsey and Coastal Commission Members:

Thank you for all that you and your staff do to protect our beautiful coastline and enhance public access to this unique region of our State. I appreciate the Commission's partnership with local government and our ongoing collaboration on a wide range of issues of mutual concern.

I am contacting you to urge your support for the County of Santa Barbara's application to retain the existing buried revetments at Goleta Beach County Park that will protect the public access amenities from severe storm erosion.

As the First District Supervisor for Santa Barbara County, I am very familiar with the nearly two decade effort to address the complex issues related to the preservation of Goleta Beach Park. There have been a number of proposals and multiple Environmental Impact Reports over that period that have provided decision makers with a wealth of technical information and important background to help us make an informed decision on the best plan to protect this community asset. That analysis, history and community input led me to join my colleagues on the Board of Supervisors to unanimously support the plan before you, which also includes the conditioned support of your own staff.

The importance of Goleta Beach County Park cannot be overstated. It is visited by more than 1.5 million people annually and is the largest coastal recreation and access point in the area west of the City of Santa Barbara. As such, it provides significant, low-cost public access and coastal recreation opportunities to some of the least developed and most scenic sections of shoreline in the urban region of Santa Barbara County. A recent study conducted by the County Trails Council demonstrated that the majority of users are from the local area, and that free parking and ease of access to the coast were key values in their use of Goleta Beach Park. It is worth noting that these values and the ability to use the amenities provided at Goleta Beach are covered under Article 2, Section 30213 of the Coastal Act which states "lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided."

Now is the time to protect Goleta Beach Park. Your support of the County's application would be greatly appreciated.

Sincerely,

OCLI

Salud Carbajal First District Supervisor Exhibit 4 Addendum CDP Application 4-14-0687

UCSB

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OFFICE OF THE VICE CHANCELLOR ADMINISTRATIVE SERVICES SANTA BARBARA, CALFORNIA 93106-2033 Tel: (805) 893-2770 Fax: (805) 893-8837 http://www.ucsb.cdu

May 11, 2015

VIA EMAIL TO: GoletaBeachRevetment@coastal.ca.gov

Chair and Supervisor Steve Kinsey California Coastal Commission 45 Fremont Street, Suite 2000 San Francisco, California 94105

Dear Chair Kinsey:

On behalf of the University of California, Santa Barbara ("University"), I wish to convey our strong and enthusiastic support for the County of Santa Barbara's permit application in its efforts to protect Goleta Beach.

This is an important issue for the University as well as the community at large. Goleta Beach is a vital community resource. From the University's perspective, not only do our faculty, staff, and students enjoy the recreational opportunities that Goleta Beach offers, but it also attracts a diverse group of visitors from all over Santa Barbara County. On any given day, there are groups of people playing volleyball, fishing off the pier, celebrating special events or playing horseshoes. There are few locations along the California coast that attract and celebrate such diversity of visitors.

In addition, the University has important infrastructure on the west end of Goleta Beach County Park that could potentially be threatened if the park is not protected. Our sewer lift station (which is responsible for 90 percent of the sewage from the main campus) is located just east of the Henley Gate and our recycled water line is also along this corridor. Given that 90 percent of our landscape depends on the recycled water that comes from this line, we have a vested interest in ensuring that the beach is not allowed to erode to a point where our infrastructure is threatened.

We urge you and your fellow Commissioners to support the County of Santa Barbara's permit application and the Coastal Commission staff recommendation to protect this important Community resource.

Thank you for all the important work you do.

Sincerely yours,

Marc Fisher Vice Chancellor

cc: Charles Lester Jack Ainsworth Steve Hudson Supervisor Janet Wolf, County of Santa Barbara Renee Bahl, Assistant CEO, County of Santa Barbara Mayor Paula Perotte, City of Goleta Kristen Miller, CEO/President Goleta Valley Chamber of Commerce



e e e e este Les Étilistries



April 20, 2015

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CITY MANAGER Michelle Greene Mr. Charles Lester, Executive Director Mr. Jack Ainsworth, Deputy Director California Coastal Commission 45 Fremont, Suite 2000 San Francisco, CA 94105- 2219

RE: Goleta Beach County Park Revetment Retention Project Letter of Support (Coastal Commission Application No. 4-14-0687)

Dear Mr. Lester, Mr. Ainsworth, and Coastal Commissioners:

The City of Goleta is pleased to express support for the Goleta Beach County Park Revetment Retention Project and related permit application submittal by the County of Santa Barbara to the California Coastal Commission, dated April 25, 2014. The Goleta City Council supports the County Board of Supervisors in their commitment to the protection and preservation of Goleta Beach and Park as public resources. Preserving the rock revetment, which has protected the beach and the park for years, is a logical, simple, and cost effective strategy to protect our County's most popular park.

The Park is widely used and serves as a critical recreational facility for the region. The Goleta City Council respectfully requests that the Commissioners preserve the existing rock revetments, as requested by the County. Without the revetments, lawn and recreational infrastructure will become exposed and eventually will be lost, having a devastating impact on this regionally significant coastal resource.

All economic groups of varying ages and abilities recreate in the water, on sandy beach, and on lawn space overlooking the Pacific. The breadth of recreational opportunities is unique in the region and something we treasure. Because of this, the City feels strongly about the future of the park and remains deeply invested in retaining the existing revetment and request your assistance in this regard.

Sincerely,

Paula Perotte Mayor



4699 HOLLISTER AVENUE GOLETA, CALIFORNIA 93110-1999 TELEPHONE 805/964-6761 FAX 805/964-7002

D I R E C T O R S LAUREN HANSON, *PRESIDENT* RICHARD M. MERRIFIELD, *VICE-PRESIDENT* JOHN F. CUNNINGHAM, *DIRECTOR* BILL ROSEN, *DIRECTOR* MEG WEST, *DIRECTOR*

> GENERAL MANAGER JOHN D. MCINNES

April 27, 2015

California Coastal Commission South Central Coast Area c/o Steve Hudson, District Manager 89 South California St., Suite 200 Ventura, CA 93001

RE: Application No. 4-14-0687 (Goleta Beach County Park, Santa Barbara Co.)

Dear Mr. Hudson:

The Goleta Water District (District) appreciates the opportunity to comment on the County of Santa Barbara's Application for a Coastal Development Permit for a proposed approximately 1,200 linear ft. asbuilt rock revetment at the western end of Goleta Beach County Park (Park). The District supports the proposed as-built revetment as a reasonable near-term solution to the accretion and erosion issues at the Park, and believes that the revetment will protect the District's existing recycled water pipeline infrastructure in the utility corridor in a logical, cost-effective manner.

The District's 18-inch recycled pipeline at the Park conveys approximately 1,000 acre-feet per year of recycled water to 19 large recycled water customers including UC Santa Barbara, various golf courses, and other large landscaped areas that are valued by the community. Recycled water service is an important aspect of our water conservation efforts because the reclaimed water can be used in lieu of potable drinking water resources that are of limited supply in our arid region, particularly during the current drought.

In 2014, the County completed a new Environmental Impact Report (EIR) (Goleta Beach County Park Managed Retreat Project 2.0 – March 2014) that analyzed a managed retreat project and five project alternatives. The managed retreat approach included relocating landward several threatened utilities and two parking lots at the western end of the park, and allowing limited shoreline protection measures to protect high-value utility infrastructure that would be difficult to relocate, such as the District's recycled water line. The District previously expressed its multiple concerns with relocating its line to the County. Based on the conclusions of the County's EIR and several other factors, instead of a managed retreat project, the County Board of Supervisors chose to submit the subject permit application to permanently retain the existing 1,200 ft. long rock revetment to protect park facilities.

The District provided comments on the County's Notice of Preparation and Draft and Final EIRs for the project, and has worked with the County's design engineers to ensure the proposed revetment will not

April 27, 2015 Mr. Steve Hudson (Application No. 4-14-0687) Page 2

jeopardize the District's recycled line. To that end, the District supports the Commission staff's recommendation that the Commission require monthly revetment monitoring to closely monitor potential erosion.

In sum, the District supports approval by the Commission of the as-built revetment project proposed by the County, as the District believes this project alternative is the most reasonable alternative with the least adverse impacts to the shoreline and utility infrastructure. Without the revetments, key District infrastructure will become exposed and eventually will be lost, having a great impact on recycled water supplies during an historic drought.

Should you or Commission staff have further questions, Ryan Drake, the District Water Supply and Conservation Manager, is available at <u>rdrake@goletawater.com</u>, and can also be reached at (805) 879-4627.

Sincerely,

John McInnes General Manager



Timothy J Mahoney Public Affairs Manager

134 East Victoria Street Santa Barbara, CA 93101

> tel 805 681 7930 fax 805 962 2017 cell 805 689 3033

May 8, 2015

Chair Steve Kinsey & Coastal Commissioners California Coastal Commission 89 So. California Street, Suite 200 Ventura, CA 93001-2801

RE: Support Santa Barbara County's Goleta Beach Park Application

Dear Chair Kinsey and Honorable Coastal Commissioners:

The Southern California Gas Company supports Santa Barbara County's application for a permit to protect Goleta Beach Park. This will leave in place the existing buried revetment that guards the park as well as protecting important infrastructure such as restrooms, bike paths, parking and utility lines.

We appreciate Coastal Commission staff's recommendation for approval; as the environmental impact report and other studies indicate that the existing revetment, buried in 2004, has enabled Goleta Beach Park to withstand winter streams, while keeping the natural migration of sand along the coast.

There are several utility lines including natural gas, water, sewer and telecom serving the public that are also protected by the existing buried revetment.

Sincerely, Imothy J. Mahorey

Timothy J. Mahoney tmahoney@semprautilities.com

cc: Santa Barbara County

www.SantaBarbaraCA.gov



City of Santa Barbara City Council

Helene Schneider <i>Mayor</i>	May 8, 2015					
Dale Francisco Councilmember	South Central Coast District Office, Coastal Commission c/o Jack Ainsworth, Deputy Director Steve Hudson, District Manager 89 South California Street, Suite 200 Ventura, CA 93001-2801					
Gregg Hart Councilmember						
Frank Hotchkiss Councilmember	Re: Statement of Position on Goleta Beach					
Cathy Murillo Councilmember	Dear Coastal Commission Members:					
Randy Rowse Councilmember	I support permit approval of the existing rock revetment at the western end of Goleta Beach County Park. I am in agreement with Commission staff, the Sierra Club Santa Barbar					
Bendy White Councilmember	Group, and the Santa Barbara County Board of Supervisors on this matter. Notably, your staff has included extensive conditions on this recommended approval.					
Tel: 805.564.5318 Fax: 805.564.5475	Climate change is going to bring ever more powerful storms and rising high tide levels to our area. Even as the City of Santa Barbara and County of Santa Barbara work to address climate change, we must find short and medium term protections for important public and environmental resources such as Goleta Beach Park from storms and rising tides.					
City Hall De La Guerra Plaza P.O. Box 1990 Santa Barbara, CA 93102-1990	During powerful storms the revetment has protected the park. At times the rocks have been exposed, but they have soon been covered up again with sand by natural processes. Each of these cases has to be examined on its individual merit as each location is unique.					
	Goleta Beach Park has more than one million visits each year. Free to the public, it provides ocean access to many low-income and working class residents, some of whom reside in the City of Santa Barbara. Environmental justice recognizes the rights of the public to have coastal recreation and access maintained at this unique location.					
	I urge the Commission to permit the existing protective revetment in Goleta Beach County Park where it has been working well for many years, for the benefit of so many South Coast residents and visitors.					
	Sincerely,					
	Cathy Muríllo					



Please consider the environment before printing this letter.



City of Santa Barbara

City Council

GHart@SantaBarbaraCA.gov

www.SantaBarbaraCA.gov

Gregg Hart Councilmember

May 6, 2015

City Hall

735 Anacapa Street Santa Barbara, CA 93101-1990

California Coastal Commission 89 South California Street, Suite 200 Ventura, CA 93001-2801

Re: Support for Goleta Beach Permit

Mailing Address: P.O. Box 1990 Santa Barbara, CA 93102-1990

Tel: 805.564.5319 Fax: 805.564.5475 Dear California Coastal Commission Members:

I support the Santa Barbara County Board of Supervisor's decision, and your staff's conditioned recommendation, to retain the existing buried revetments at Goleta Beach County Park to protect the public access amenities from severe storm erosion.

Goleta Beach County Park is the most heavily visited park in the Santa Barbara County Park system, hosting 1.5 million residents and visitors annually. The March 2014 Environmental Impact Report clearly identifies the unique site-specific geologic and environmental issues at Goleta Beach and concludes retention of the existing buried revetment would not have significant adverse impacts on local and regional coastal processes. Removal of the existing revetments could potentially jeopardize public access to this regionally significant coastal recreation park and beach after a major storm event.

As a former member of the California Coastal Commission from 2000-2004, I know the difficult decisions you regularly face evaluating highly technical scientific information and protecting coastal access and preservation.

After carefully reviewing the staff report and EIR for this project, I recognize your staff's careful consideration of the facts in the County's permit application and urge your support for their recommendation.

Thank you for your service to the State of California.

Sincerely Gregg Ha

Santa Barbara City Councilmember



Please consider the environment before printing this letter.



GCENEC

MAY 0.5 2015 Schimmic Coastal Commission South Coastal Coast District

May 4, 2015

RE: Santa Barbara County Goleta Beach Project (4-14-0687)

California Coastal Commissioners,

On behalf of the Santa Barbara County Park Commission, we support your staffs' recommendation to approve the permit which retains the existing buried rock revetment at this popular beach park. Goleta Beach is the most heavily visited County Park in Santa Barbara County, hosting 1.5 million residents and visitors annually. The park provides critical coastal access and recreation opportunities to residents of all income levels. In fact, a recent survey shows that low income families visit an average of nine times more often than the average visitor.

The March 2014 Environmental Impact Report noted that beneficial impacts on continued public use of the beach and upland park facilities favor retention of the revetment. The report specifies that retention of the existing revetments would have insignificant adverse impacts to coastal processes at Goleta Beach County Park and down-coast. The buried revetment is important because it acts as the last line of defense to protect the park's infrastructure including restrooms, picnic areas, a playground, a Class I bike path and parking lots. Goleta Beach County Park provides free coastal access and two-thirds of those surveyed said it was their primary coastal access.

Goleta Beach County Park and all its amenities are critically important to our residents and visitors. The Parks Commission strongly urges the Coastal Commission to approve its staffs' recommendation. Please contact Renée Bahl at 805-568-2467 if you have any questions.

Sincerely,

Perhina

Suzanne Perkins, Chair Santa Barbara County Parks Commission

Cc: Janet Wolf, Chair, Santa Barbara County Board of Supervisors
 Peter Adam, Vice Chair
 Salud Carbajal, Supervisor
 Doreen Farr, Supervisor
 Steve Lavagnino, Supervisor
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 Bailey Hudson, Commissioner
 Steve Hudson, Executive Director, California Coastal Commission
 Renée Bahl, Interim Director, Santa Barbara County Community Services Department



May 5, 2015

Mr. Charles Lester, Executive Director California Coastal Commission 45 Fremont, Suite 2000 San Francisco, CA 94105-2219

RE: Goleta Beach County Park Revetment Retention Project Coastal Commission Application No. 4-14-0687

Dear Mr. Lester,

The Santa Barbara County Trails Council (Trails Council) is a broad based trails advocacy group consisting of hikers, runners, equestrians, mountain bikers and other trail users. The Trails Council was formed in 1967 to advocate for planning and construction of new trails and to help organize work parties to maintain existing trails. Our organization and Board members have substantial experience with all aspects of trail planning, design, acquisition and construction. For example, the Trails Council recently published the Gaviota Coastal Trail and Access Study which has been recognized with awards of excellence by the Association of Environmental Professionals and the American Planning Association. We are working diligently to plan and implement several segments of the California Coastal Trail and new coastal access points along the Gaviota Coast.

Our work on protecting and improving coastal access along the Gaviota Coast has shown us how highly the public values coastal access and how difficult, time consuming and expensive it is to acquire and develop new coastal access facilities. For example, on one recent project along the Gaviota Coast, the Trails Council gathered almost 1,000 post cards, letters and emails of support for protecting and improving coastal access. Based on our experience, acquisition of new coastal access can take many years or even decades and cost hundreds of thousands of dollars to develop and open to the public. As such, existing coastal access facilities should be treated with great respect, particularly where they can be utilized free of charge and act to serve a wide range of the community.

For this reason, the Trails Council is writing the Coastal Commission in support of the County's proposed project at Goleta Beach. We believe that Goleta Beach Park, the free parking, shoreline lawn and picnic grounds combined with its close proximity to a family friendly beach are a critical coastal recreational resource, particularly to those in the community of more modest means. We would also like to note that, based on a recent survey completed for the County by the Trails Council that the Park receives very *high visitation via bicycle, walking and jogging*. We believe that this is due to high quality access provided to the park via the Obern Trail, named after Trails Council founding board member Vivian Obern and her husband George.

In closing, we believe that the County proposal serves as a reasonable compromise to continue to provide coastal access in a manner respectful of both public needs and coastal resources.

Thank you for considering our input.

Sincerely, Otis Calef, President

cc. Janet Wolf, Santa Barbara County Supervisor, 2nd District Mary O'Gorman, 2nd District Chief of Staff Steve Hudson, California Coastal Commission 2015 BOARD OF DIRECTORS

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May 8, 2015

Mr. Steve Kinsey, Chair California Coastal Commissioners 45 Fremont, Suite 2000 San Francisco, CA 94105-2219

RE: Goleta Beach County Park Request for Permit – SUPPORT

Dear Mr. Kinsey and Members of the Commission:

The Goleta Chamber of Commerce represents 450 business members and 35,000 jobs in South Santa Barbara County. Goleta Beach Park is a treasured asset to our members, our community and the entire county. Because of this, the Goleta Chamber began advocating for protection of the park's amenities, which were regularly threatened by winter storms, more than 10 years ago.

We participated in the County's Working Group to study the coastal process at Goleta Beach and helped to make recommendations for a long term solution. We formed the committee Friends of Goleta Beach and funded community outreach about the changes needed at Goleta Beach Park.

We are very gratified with the widespread consensus that has now formed around support for protecting Goleta Beach Park. Much of this consensus comes due to the award winning Environmental Impact Report, executed by the County, which proves with sound science that the buried rock revetment that was installed well above surfline, provides a last line of defense when winter storms threaten to erode the park's amenities and shoreline.

Our members do not want managed retreat in this location. We understand the *potential* dangers of rock revetments placed in the surfline and the sand migration problems that *can* occur with hard structures on the coast. However, at Goleta Beach, <u>these conditions do not occur and there are</u> <u>many years of monitoring that have already supported this.</u>

We support the Commission's staff report to permit the existing revetment and monitor the beach for 20 years.

Thank you for taking our support into consideration.

Best regards,

Kristen Miller President/CEO Goleta Valley Chamber of Commerce

Exhibit 5 Addendum CDP Application 4-14-0687

May 6, 2015

Re: Santa Barbara County Goleta Beach Park Project (4-14-0687)

California Coast Commissions:

Michael W. Rattray and Ed de la Torre are residents of the County of Santa Barbara, and members of the Friends of Goleta Beach Park group (herein Friends). We write you today in support of Staff's position of permitting the ~1200 linear feet of emergency rock revetment in place on the west-end of this beach park.

Friends has been a part of the county Working Group assembled some ten years ago to study this beach park's long term solutions for community usage of this recreational area. And now with a formal EIR in place that documents the soundness and placement of the rock revetment in the coastal zone relative to the mean high tide line that does not obstruct down coast sand migration, allowed the Santa Barbara County Supervisors to approve the "No Project" Alternative in March 2014.

Friends also supports the Staff imposed recommended Special Conditions as part of your consideration if the Commissioners were to accept this position. The checks and balances described will provide more than adequate safeguards for and corrective actions if required.

In summary, both the beach and the park are a vital community asset to 1.5M visitations annually and one of the reasons we are called Goleta the Goodland. By allowing this buried rip rap to finally be permitted will allow our community to enjoy this beach park knowing that when those badly needed El Nino storms do come back, our last line of defense is in place when needed.

Thank you,

Ala Latter

Michael W. Rattray **Executive Committee, Friends of Goleta Beach Park**

Ed de la Torre

cc: Jane Wolf, Chair, Santa Barbara County Board of Supervisors

Peter Adams, Vice Chair

Salud Carbajal, Supervisor

Doreen Farr, Supervisor

Peter Lavignino, Supervisor

Suzanne Perkins, Chair Parks Commission

Renne Bahl, Interim Director, Santa Barbara County Community Service Director

Steve Hudson, District Manager, California Coastal Commission

John (Jack) Ainsworth, Senior Deputy Director, California Coastal Commission

13 May 2015

TO: California Coastal Commission

RE: Rock Revetment at the west end of Goleta Beach Park

The Environmental Defense Council will tell you that the rock wall at the west end of Goleta Beach should be removed, because their select group of coastal engineers assert without proof that it is causing Goleta Beach to erode.

In fact, without that west end rock wall, the area behind the wall would rapidly erode northward along the property boundary between UCSB and the park, across the bike path, the west end of the parking lot, and all the way into the slough in the course of just a few major storms.

How and why? Because the down-coast longshore current and the prevailing wave pattern directs surf flow eastward from UCSB Beach around the small rocky headland at the west end of Goleta Beach, so that the swash swirls around the point and into the west end rock wall as a counter-clockwise eddy, one that is especially strong and erosive during big storms and high high tides. Consequently the area in the lee of the headland is an erosional "hot spot" as clearly realized by those who permitted the emplacement of the west end rock wall more than 30 years ago.

Forty six years ago I began using that little rocky headland as the object for an annual geological field study with UCSB undergraduate geology majors. During the ensuing years, I have watched the little headland be steadily and significantly eroded by direct sea wave attack and by the counter clockwise eddy. The more the headland is eroded, the farther the eddy will penetrate into the erosional "hot spot".

Even though the west end rock wall ought to be re-engineered, properly and regularly maintained, it is and has been the best defense against mainland erosion at the west end of Goleta Beach Park for more than 30 years.

Arthur G. Sylvester, Professor Emeritus

UCSB Department of Earth Science



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May 11, 2015

California Coastal Commission South Central District Office 89 S. California Street, Suite 200 Ventura, CA 93001

RE: SUPPORT <u>Application No. 4-14-0687 (Goleta Beach County Park, Santa</u> <u>Barbara Co.)</u>

Dear Coastal Commission Members:

CAUSE's mission is to build grassroots power to realize social, economic and environmental justice for the people of California's Central Coast Region through policy research, leadership development, organizing, and advocacy. CAUSE's vision is that together we can create a global community where we all contribute to, and benefit from, a sustainable economy that is just, prosperous and environmentally healthy.

CAUSE takes very seriously our obligation to carefully review and evaluate proposals that impact the environment and our residents, particularly low income and immigrant communities that often have no voice. We have carefully studied the County of Santa Barbara's application and the accompanying environmental documents for a permit to allow the existing emergency revetments at Goleta Beach Park to remain. We support the County's proposal, and appreciate the Commission staff's recommended conditions of approval, particularly that parking and access remains free for the life of the project.

Goleta Beach Park is the largest and most developed coastal recreation and access point in the region. It is the only beachfront public park in more than eight miles of urban area coastline and is visited by approximately 1.5 million people per year. Goleta Beach Park offers a unique combination of natural coastline and public park facilities, such as BBQ grills, picnic tables and benches, a playground, and public restrooms. It is a family friendly environment that is available free to local residents.

A recent survey of park users demonstrated that the vast majority of users are from the local area, and a large percentage of visitors ride bikes or walk to the park. The survey found that 46% of the respondents were from lower income households and that lower income households visit Goleta Beach an average of 9 times more often per year than other households.

Protecting all of the existing park facilities and retaining safe and free access is an important social and environmental justice issue. It is important to continue to protect this important public and environmental resource from storm impacts.

The revetment is for the most part buried in the sand and has protected Goleta Beach Park and all of its facilities from storm impacts for many years in a safe and effective manner. The monitoring and conditions of approval recommended by your staff will provide the ability for the County to respond to any intermittent exposure of rocks that can occur following a major storm such as the one we saw in March 2014.

CAUSE urges the Commission to issue a permit to allow the existing rock revetment to remain at Goleta Beach.

Thank you.

Sincerely,

Manca Vangan

Marcos Vargas PhD Executive Director

Cc: Supervisor Janet Wolf

Approve the County request.

James Childress [jim.childress@lifesci.ucsb.edu] Sent: Monday, May 11, 2015 3:09 AM To: CoastalGoletaBeachRevetment

California Coastal Commission

Gentlepersons,

This letter is written concerning the Goleta Beach rock revetment in Santa Barbara county. I am a retired (though still teaching) UCSB oceanographer who has watched Goleta beach since 1969. I most strongly urge you to support the Santa Barbara County request to retain the revetment and to reject the arguments made by Surfrider and EDC. I will elaborate below.

First it is important to realize that Goleta beach is a construct and much of the airport is on fill. A return to a natural state would see the elimination of Goleta beach and probably much of the airport, the freeway and other infrastructure. It is impossible to see how allowing nature to prevail would "save Goleta beach".

Second, while sea level rise is inevitable and society should be planning for it, surrendering the beach and park at this time, before it is necessary, is akin to someone deciding that they will commit suicide when they are 30 because they are going to die in the long run. It is clear that eventually steps will have to be taken with regard to sea-level rise along large areas of the California coast. Undoubtedly there will be great pressure to defend private property. Sacrificing valuable and heavily used public property such as Goleta beach prematurely should be firmly rejected.

Third, from my many years of watching Goleta beach itself expand and contract over the years and the placing and removal of rock revetments over that time, it seems apparent that the revetment is an effective protection at this time and is likely to continue to be for some time.

Fourth, there are two entities referred to by the name "Coleta Beach". One is the beach itself, the sand, and the other is the grassy park with convenient vehicle parking and other facilities. The beach park encompasses both, but the Surfrider/EDC position would prematurely sacrifice the grass park area and some parking. While this may make sense if one thinks that the only reason Goleta Beach Park is so popular is the sand, it fact it is the large parking area, convenient to the grass area and other facilities that makes this park so popular. The Santa Barbara city beaches in comparison have less parking that is mostly less convenient for access. The preservation of the entire park is important from this perspective. Please vote to support the Santa Barbara County request.

Sincerely,

James Childress

Retired Professor above scale, UCSB



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EXECUTIVE DIRECTOR

Ken Hough

ASSOCIATE DIRECTOR Jeanne Sparks

SB CAN

P.O. Box 23453 Santa Barbara, CA 93121 805.563.0463 ken@sbcan.org May 7, 2015

Dear Coastal Commission Members:

Santa Barbara County Action Network was formed in 2002 to bring together environmental and social-justice advocacy in the county. SB *CAN* supports your staff's recommendation that the existing revetments at Goleta Beach be allowed to be left in place with review and monitoring over the next 20 years.

The recommendation acknowledges that there are environmental issues to be watched, but also recognizes the importance of this site as a recreational resource for the community. It is heavily used and free, and especially is accessible to lower-income residents in Old Town Goleta and other parts of the community.

SB *CAN* has no particular expertise on the subject of revetments, but we do support a balance between protection of the natural environment and provision of access to coastal resources—a balance that we believe your staff recommendation strikes.

Thank you for your consideration of our comments.

Sincerely,

Ken Hough Executive Director

Goleta Beach Revetment

Glenn Avolio [glennavolio@gmail.com] Sent: Monday, May 11, 2015 3:03 PM To: CoastalGoletaBeachRevetment

I am writing to respectfully request that you vote in favor of allowing the existing rock revetments at Goleta beach Park to remain in place. This is also the opinion and recommendation of the CCC Staff, The City Of Goleta, City Council, the Santa Barbara Board of Supervisors, UCSB, and the Goleta Chamber of Commerce. The revetment is above the mean high tide mark and was placed to save the park from destruction during past el Nino events and worked to accomplish that end. Since that time the sand has regenerated and the rocks are covered and the beach has grown. Please vote to permit the rock revetments.

Glenn Avolio

Protect our beach from the seawall!

Morgan Tusa [morgantusa@gmail.com] Sent: Monday, May 11, 2015 4:17 AM To: CoastalGoletaBeachRevetment

To whom it may concern,

I love Goleta beach, and as a community we must care for it to the best of our ability, supporting nature and the relationship people have to the beach. Please protect it from the sea wall.

Sincerely,

Morgan Tusa

Support Goleta Beach Permits

Deborah Schwartz [ds@mesaconsultingllc.com] Sent: Tuesday, April 28, 2015 3:21 PM To: CoastalGoletaBeachRevetment; atuttle@co.santa-barbara.ca.us

Goleta Beach Park is an important regional coastal recreation asset to residents and visitors of all ages and socio-economic levels. I know the Coastal Commission's standard practice is to disapprove coastal armoring. However the revetment at Goleta Beach Park has been in place for some years and its removal now would greatly diminish if not completely destroy this important recreation area.

Please vote to support Santa Barbara County's application to allow the revetment to remain. Thank you.

Support Goleta Beach Permits

Peter Jordano [pjordano@jordanos.com] Sent: Tuesday, April 28, 2015 3:45 PM To: CoastalGoletaBeachRevetment; atuttle@co.santa-barbara.ca.us

Goleta Beach Park is an important regional coastal recreation asset. Please support the County's application to allow the revetment to remain.

I walk out to Goleta Beach every lunch hour and I see how many people also love Goleta Beach. You <u>must</u> support the county's application to allow the revetment to remain.

Jo Ann Cavaletto 1100 Via Del Rey Goleta CA 93117



May 8, 2015

California Coastal Commission South Central Coast Area 89 South California Street, Suite 200 Ventura, CA 93001

Re: W-22a; Goleta Beach Revetment Project

Honorable Chair Steve Kinsey and Commissioners,

The Ventura Chapter of the Surfrider Foundation urges you to reject the proposed project and support feasible, effective alternatives to protect Goleta Beach County Park without relying on damaging rock revetments. Ventura Surfrider works on integrated solutions to the problems that face our ocean, waves, and beaches. Evidence submitted by Surfrider and Environmental Defense Center (EDC) to the Commission demonstrates - contrary to the staff report - that the west portion of the Goleta Beach Rock Revetment is typically exposed to wave action and is already eroding and damaging Santa Barbara County's largest and most popular public beach.

Extensive photographic documentation illustrates that, since the revetments were put in over a decade ago, they have frequently been exposed, forming a rock wall that inhibits public access from the parking lot to the beach. Photos also show that the western 150 feet of the rock revetment is within the intertidal zone so at moderate high tides there is no beach remaining. The revetments are blocking lateral access and forcing beach-goers to have to scramble over the dangerous, exposed rock seawall onto the parking lot, and walk between cars simply to continue walking the coast.

The evidence submitted by Dr. David Revell of Revell Coastal, Inc. demonstrates that the rock seawall is causing passive erosion and has resulted in substantial placement loss of the sandy beach. This means less area for people to walk on the beach, to sit and watch the waves, and to build sand castles. This evidence demonstrates that the rock seawall, where exposed, is not mitigating impacts on sand supply and is eroding the public beach in violation of Coastal Act section 30235.

The shrinking beach at the foot of the exposed revetment is an "Area of Special Biological Significance" according to the staff report. New evidence from beach ecologist Dr. Jenny Dugan shows that this area is being substantially impacted by the revetment in conflict with Coastal Act sections 30230 and 30240.

Surfrider has presented a viable alternative, backed by engineers and coastal scientists, which would protect all Park infrastructure, maintain the current number of parking spaces, enhance access and recreation, increase the size of the public beach, and restore coastal processes and sand supply. This alternative, submitted to you by the EDC and Surfrider on May 6, 2015, would focus adaptive measures where measurable impacts have now been documented in the

Exhibit 6 Addendum CDP Application 4-14-0687 beach's western 150 feet. Parking spaces located within the critical erosion zone would be relocated closer to Park amenities and the sewer line would be moved out of the critical erosion zone, protecting our beach. The relocated sewer line, the UCSB pump house, and the new southwestern edge of Parking Lot 7 would be protected. The existing revetments in front of the restaurant and pier would be retained. This compromise approach will enhance the Park as a recreational destination while beginning the necessary process of adapting to sea level rise.

This alternative is remarkably similar to the highly successful Surfers' Point Project in Ventura County. Parking spaces and a bike path were moved back out of the coastal processes zone, the damaging rock revetment seawall was removed and a more natural approach to protecting the Ventura Fairgrounds was implemented after a collaborative stakeholder process. The results have been touted as highly successful with effective coastal management in the face of erosion, and protecting infrastructure, the public beach, access, recreation and habitat. We ask the Commission to please consider Goleta Beach in light of the Surfers' Point Project.

In closing, we generally agree with staff's recommended adaptive management approach. Staff has indicated to Surfrider that when measurable impacts are documented, the process of adapting to sea level rise must begin. Now that this evidence has been submitted, we urge the Commission to support Surfrider's compromise to protect the Park and the beach. Surfrider stands by to help Santa Barbara County achieve the Coastal Act goals of protecting access and recreation and the natural environment.

Thank you for your attention to our comments.

Sincerely,

DOCK

Dan Glaser Chair | Ventura County Chapter

Deny Goleta Revetment Coastal Development Permit

joel fithian [joelfithian@mac.com] Sent: Monday, May 11, 2015 6:27 PM To: CoastalGoletaBeachRevetment

joel fithian 316 east los olivos street santa barbara, CA 93105

May 11, 2015

Dear SB Coastal Commission.,

Dear Coastal Commissioners,

In light of sea level rise, we urge you to deny the CDP for the County of Santa Barbara to retain the unpermitted rock revetment. Goleta Beach is a scenic, accessible community treasure. As the most visited beach in Santa Barbara County, it is a public resource that must be protected. Over time, the unpermitted rock revetment at the west end of the beach, like a seawall, will erode Goleta Beach by redirecting wave energy down and sweeping beach sand out into the ocean. When the sharp rocks are exposed by wave action, the revetments pose an unsafe risk to beachgoers, especially children and the elderly.

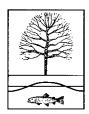
Please consider the alternate plan put forth by the Surfrider Foundation and Environmental Defense Center call the Goleta Beach Restoration Plan that recommends relocating the western parking spaces and sewer line and denying the rock seawall.

Sincerely, joel fithian

SANTA BARBARA URBAN CREEKS COUNCIL

P.O. Box 1467, Santa Barbara, CA 93102 (805) 962-8260 sbucc@silcom.com

www.sb-urbancreeks.org



May 9, 2015

Transmitted by email to: <u>GoletaBeachRevetment@coastal.ca.gov</u>

California Coastal Commission South Central Coast District Office 89 So. California St. #200, Ventura, CA 93001

Re: Goleta Beach (W22-a)

Dear Coastal Commissioners,

The Santa Barbara Urban Creeks Council is a 501(c)3 non-profit organization that has advocated on behalf of sound environmental planning across the South Coast of Santa Barbara County for over 25 years. We have served as a strong voice for environmental protections for over 3000 families and members, when environmental impacts threaten to degrade quality of life. We are concerned today about the current and the future impacts that are resulting and that will continue to result from placement of an emergency rock revetment that was constructed between 1998 and 2005 at Goleta Beach.

We are concerned that the staff analysis incorrectly assumes the rocks are buried under sand except after large storms. This assumption would suggest that there have been no impacts. But Dr. David Revell of Revell Coastal, Inc. and Dr. Jenny Dugan of UCSB, both of whom have studied Goleta Beach for many years, have now identified that there is substantial frequent exposure and corresponding impacts on beach erosion and habitat.

Given this we agree with the staff adaptive management approach, with the caveat that now is the time to trigger more environmentally protective adaptive management. It is no longer appropriate to wait for evidence that the western section of rock revetment is frequently exposed, because now there is information showing the beach is already impacted and it is getting worse.

We support the Environmental Defense Center (EDC) and Surfrider in their efforts to remove dangerous rocks where exposed and restore a larger, wider and safer beach for people.

It is now confirmed by experts that unintended consequences are occurring, as a result of the poorly planned armoring of the shoreline. This new information has recently been provided to you and is germane to the decision that is before you in this case. Scientists and coastal engineers have advised that the rock seawall is already causing Goleta Beach to erode, harming public access, recreation, sand supply, and habitat. This new information provides proof that an important assumption that was made by the county in granting approval was wrong. The rocks will not be covered by sand most of the time, thereby diminishing their potential to harm the beach. In fact, the opposite is found to be true. The rock revetment at the west end of the beach is and will continue to be exposed for a very great majority of time, thereby increasing the likelihood of destructive erosive forces that will damage the beachfront and allow hazards to the environment and to people to occur with much greater frequency.

Currently, at high tide there is no lateral access left for beach walkers and runners. People must circumvent the hazard by detouring through the parking lot. This must not be allowed to become the norm for users of one of the most popular family beaches in the county.

Additionally, we want to make you aware of important coastal habitat and ecosystem interconnections, such as the important foraging habitat that currently exists on the beachfront for Beldings savannah sparrow. This state-endangered avian species, that nests in the slough and forages on the west end of Goleta Beach, may suffer and be depleted as their foraging habitat is lost due to the harmful impacts that will result from the exposed rocks.

We are also concerned that the staff report does not consider the effects of the exposed revetment on sand supply as it relates to the slough mouth. Better analysis of disruptions to rates of sand movement is needed in order to understand impacts to wildlife and to periodic closure of the slough at the mouth.

The plan that is favored by EDC and Surfrider preserves a rare and safe beach environment for use by future generations, by protecting the most important site-specific amenities, the beach and shoreline recreational waters. It minimizes maintenance costs, and addresses safety concerns for beach users.

We strongly urge you to support EDC and Surfrider in their efforts to protect public access to safe and increasingly rare coastal recreational resources. Please support their reasonable compromise to protect public access and to restore the beach to a landscape that can adapt to changing conditions without diminishing the environment and quality of life.

Sincerely,

Elliphani

Eddie Harris, President

cc: EDC Surfrider

Protect Goleta beach from the seawall

Mike Hedblom [mhedblom@kroplaw.com] Sent: Friday, May 08, 2015 3:06 PM To: CoastalGoletaBeachRevetment

Please protect Goleta beach from the seawall

- Coastal engineers and scientists tell us the rock seawall is already causing Goleta Beach to erode, harming public access, recreation, sand supply, and habitat.
- There is no lateral access left at high tides. People are forced to walk over rocks and through the parking lot! This is not what we envision as a California coastal experience.
- EDC and Surfrider have developed a scaled-back compromise plan which would remove the dangerous rocks where exposed and restore a larger, wider beach for people.
- This plan was developed with the overarching goals of protecting the park and protecting the beach for future generations.
- Please support this reasonable compromise to protect public access and restore our beach.

J. M. Hedblom Palo Alto, Ca <u>mhedblom@kroplaw.com</u>

Deny Goleta Revetment Coastal Development Permit

Stefanie Sekich [ssekich@surfrider.org] Sent: Tuesday, May 05, 2015 11:59 PM To: CoastalGoletaBeachRevetment

Stefanie Sekich 8255 Whelan Dr San Diego, CA 92119

May 5, 2015

Dear SB Coastal Commission.,

Dear Coastal Commissioners,

In light of sea level rise, we urge you to deny the CDP for the County of Santa Barbara to retain the unpermitted rock revetment. Goleta Beach is a scenic, accessible community treasure. As the most visited beach in Santa Barbara County, it is a public resource that must be protected. Over time, the unpermitted rock revetment at the west end of the beach, like a seawall, will erode Goleta Beach by redirecting wave energy down and sweeping beach sand out into the ocean. When the sharp rocks are exposed by wave action, the revetments pose an unsafe risk to beachgoers, especially children and the elderly.

Please consider the alternate plan put forth by the Surfrider Foundation and Environmental Defense Center call the Goleta Beach Restoration Plan that recommends relocating the western parking spaces and sewer line and denying the rock seawall.

Sincerely, Stefaņie Sekich

Rock seawall must go

Gail Osherenko [gail.osherenko@gmail.com] Sent: Friday, May 01, 2015 12:37 AM To: CoastalGoletaBeachRevetment

Dear Coastal Commission,

Please stick to the Coastal Act and your policies on armoring the coastline.

The Goleta Beach illegal rock revetment was the first coastal issue I learned about locally when I moved to Santa Barbara in 2013 after being away from California for too many decades. After all, Goleta Beach was the view I had from my office at the Bren School of Environmental Science and Management where I was teaching coastal and ocean law and policy. I was stunned by the venomous conflict brewed up over rocks that were never to be permanent. And I watched as the county poured many thousands of dollars in sand into the surf as "beach nourishment" so we'd have a beach.

Many eons ago, I worked as a legislative aid to then California State Senator Tony Beilenson (drafting and meeting with lobbyists to craft a coastal bill). As you know, that was 1975-76. A bill did make it through and became the law you now administer - with some changes over the decades. We knew back in the mid-70s that rock revetments, seawalls, and other armoring strategies only cause loss of beach at the site and starve beaches down coast. They are not the answer.

In Santa Barbara and Goleta, we accept that there is and will remain protection for the very popular restaurant and park, but don't be fooled, hanging onto every inch of grassy parkland will be costly to Goleta Beach and other beaches. There are workable solutions. A lot of money has been spent to develop and elaborate those solutions. Please tell Santa Barbara County that the time is now to implement more environmentally sustainable solutions. We will eventually have to move gas pipelines and other infrastructure due to sea level rise and storm surge.

We may as well make some changes in parking configuration and park facilities and comply with the Coastal Act.

Don't give in to the special interests protecting their private turf.

The law you implement is vital to the economy of California and to the sanity of all those able to live near or come visit it. That's because Californians long ago and now care about the coast. Please implement the law and tell the County that rock revetments are not allowed.

Sincerely, Gail Osherenko 835 Via Granada Santa Barbara, CA 93103 (805) 898 8775 andline (805) 886 1182 mobile

Thoughts on Goleta Beach

McGinnis, Christina E. x7384 [McGinnisCE@co.monterey.ca.us] Sent: Friday, May 01, 2015 4:02 PM To: CoastalGoletaBeachRevetment

Dear Coastal Commission:

Please consider the following points when making a decision on Goleta Beach. I am very concerned that with the onslaught of impacts from climate change and more extreme weather events, there will be increased "engineering solutions" that are not true solutions, that will in the long term lead to the loss of our precious beaches. There are greater implications to this decision. If the revetment is allowed to remain in place, it sets a precedent for allowing previously unpermitted emergency revetments, and will ultimately lead to the loss of the very beach it is trying to protect. Please make the right decision for our beaches and future generations and support the Goleta Beach Restoration Plan:

- Goleta Beach is a scenic, accessible community treasure. As the most visited beach in Santa Barbara County, it is a public resource that must be protected.
- Over time, the unpermitted rock revetment at the west end of the beach, like a seawall, will erode Goleta Beach by redirecting wave energy down and sweeping beach sand out into the ocean.
- When the sharp rocks are exposed by wave action, the revetments pose an unsafe risk to beach-goers, especially children and the elderly.
- Goleta Beach is an important habitat for shorebirds; the revetment means a loss of beach and, therefore, a loss of shorebirds.
- The Goleta Beach Restoration Plan, an alternative developed by Surfrider's and EDC's engineers, will add an entire acre to the sandy beach while protecting the park and the existing beach.
- At-risk parking spaces, bike path, and sewer lines will be relocated out of the erosion zone reducing the risk of sewage spills and protecting public infrastructure. No parking will be lost.
- Under the Goleta Beach Restoration Plan, the rocks in front of the Beachside Restaurant and eastern parking area will remain in place.

We the public depend on our Coastal Commissioners to make prudent conservation decisions for the future of our coastline....

Thank you,

Christina McGinnis

Goleta Beach Restoration

Paula Schaefer [PSchaefer@sbbg.org] Sent: Tuesday, May 05, 2015 3:33 PM To: CoastalGoletaBeachRevetment

Dear Sir/Madam,

Goleta Beach is an important resource for all of us in the community. The beach needs to be preserved for kids, families, wildlife, and all creatures who depend on it for recreation and habitat. Over time, the unpermitted rock revetment at the west end of the beach, like a seawall, will erode Goleta Beach by redirecting wave energy down and sweeping beach sand out into the ocean.

Instead of keeping the rock wall at Goleta Beach in place, please consider the Goleta Beach Restoration Plan, an alternative developed by the Surfrider Foundation and the Environmental Defense Center's engineers. It will add an entire acre to the sandy beach while protecting the park and the existing beach.

Thank you for your time. Have a great day. Paula

Paula Schaefer 216 East Calle Laureles Santa Barbara, CA 93105

Page 1 of 1

Goleta Beach

shields3033@netscape.net Sent: Tuesday, May 05, 2015 4:03 PM To: CoastalGoletaBeachRevetment

I am concerned about the preservation of the sandy beach at Goleta Beach Park and I would like to add my support to the Goleta Beach Restoration Plan.

The rock revelment at the west end of the beach acts like a seawall and will erode the beach by redirecting wave energy. In addition, the rocks themselves present a hazard to beachgoers.

It would be valuable to both humans and birds to add an acre of sand to the beach, and the relocation of parking spaces, sewer lines and bike path does not present an insurmountable problem.

My family has spent many happy hours at Goleta Beach over many years and I believe that its character should be preserved for the next generation to enjoy as we have.

Susan Shields 3033 Calle Rosales, Santa Barbara, CA 93105

FORM FOR DISCLOSURE OF EX PARTE COMMUNICATIONS

Name or description of project: Goleta Beach Revetment 4-14-0687 (Goleta Beach County Park, Santa Barbara Co.)

Date and time of receipt of communication: May 10, 2015 10:00 a.m.-10:45 a.m.

Location of communication: Santa Barbara

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

Person(s) initiating communication: Linda Krop, EDC

Persons participating: Linda Krop, Chief Counsel EDC, Brian Trautwein, Environmental Analyst EDC Everett Lipman, Vice Chair Surfrider Santa Barbara Chapter

Krop: they submitted a letter on Friday with attachments, Lipman submitted comments and photographs. Separately submitted- Dave Revell, coastal processes expert who has studied Goleta Beach for 15 years; Jenny Dugan, at Marine Science Inst at UCSB, studied Goleta Beach for 30 years. Orrin Pilkey also submitted.

Santa Barbara Audobon submitted a letter.

They also referenced the Coastal Commission staff comment letter to the County regarding the draft EIR,the issues are not addressed in the staff report.

In a nutshell, they are not asking for a denial, as they did in 2009. They are supporting an adaptive management plan. But the triggers for action has been met on the far west end. The coastal staff analysis relied on the County, saying the rocks on the far west are largely buried. The Commission staff took that premise from the County. They've been trying to meet with coastal staff ever since the County's application was submitted, they are not bringing this up last minute. CCC staff report was posted before they had any conversation. They think the staff report would have been written differently, had they had that meeting.

The west end is 150 feet, half of parking lot 7, not near the recreational facilities usually used. They would be willing to have a buried cobble berm to protect the bluff. They would not wait to take action, ideally. At this point everyone wants this resolved. They think the triggers for the adaptive management plan are way too liberal- 200 feet exposed is too much. They want the trigger to be 100 feet.

Everett: thinks the 150 feet is the rock that was placed in the 80's. Its not all rock, there is concrete and rebar. They believe the staff's condition is not adequate because it is exposed right now. It is unsafe and ugly. It is a substantial fraction of the material on the beach now. Staff's attitude is more appropriate if you really don't know what is there. He has been taking pictures since 2005, one of them included in the material, where there are lots of pieces in their field of view. Among the stuff exposed today, there is one concrete block every 20 feet, its hard to quantify. Doesn't think it would be practical to remove just the garbage, rusty pipes, rebar, etc. it wasn't engineered in the first place.

Exhibit 7 Addendum CDP Application 4-14-0687

Charles Andrews

MAY 11 2015

California Coasidi Commission South Central Coast District

EX PARTE COMMUNICATION DISCLOSURE FORM

Filed by Commissioner: Greg Cox

1) Name or description of project:

- Application of County of Santa Barbara request for permanent retention of 1,200-ft. long, 11-ft. high as-built rock revetment installed pursuant to emergency permits and authorized to be retained on temporary basis pursuant to follow-up permits, at 5986 Sandspit Rd., Santa Barbara County.
- May 8, 2015 at 2:30pm 2) Date and time of receipt of communication:
- Telephone 3) Location of communication: (If not in person, include the means of communication, e.g., telephone, e-mail, etc.) 4) Identity of person(s) initiating communication:
- Supervisor Saloud Carbajal
- 5) Identity of person(s) on whose behalf communication was made: County of Santa Barbara
- 6) Identity of persons(s) receiving communication: Grea Cox
- 7) Identity of all person(s) present during the communication: Supervisor Saloud Carbajal, and Greg Murphy

Complete, comprehensive description of communication content (attach complete set of any text or graphic material presented):

I spoke very briefly with Santa Barbara County Supervisor Saloud Carbajal regarding the application on today's agenda. He expressed the County's support for the project, and suggested that County staff may be submitting minor amendments to the special conditions.

5/8/15

. ...

Date

Signature of Commissioner

TIMING FOR FILING OF DISCLOSURE FORM: File this form with the Executive Director within seven (7) days of the ex parte communication, if the communication occurred seven or more days in advance of the Commission hearing on the item that was the subject of the communication. If the communication occurred within seven (7) days of the hearing, provide the information orally on the record of the proceeding and provide the Executive Director with a copy of any written material that was part of the communication. This form may be filed with the Executive Director in addition to the oral disclosure.

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MAY 08 2015

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FORM FOR DISCLOSURE OF EX PARTE COMMUNICATIONS

Ciniciana Calasia: Commission Canth Control Const District

MAY 08 2015

Name or description of project: Goleta Beach Revetment

Date and time of receipt of communication: May 7, 2015 10:00 a.m.-10:45 a.m.

Location of communication: Second District Supervisor offices, Santa Barbara

Type of communication (letter, facsimile, etc.): in person meeting

Person(s) initiating communication: Janet Wolf, Chair, County Board of Supervisors, Mary O'Gorman, staff assistant.

Persons present: same

Supervisor Wolf provided a copy of a booklet which County staff had prepared and submitted to CCC staff and to other Commissioners with whom they had visited. We reviewed the history of the beach and of the project. In 2009 the County had applied for a project for which the CCC staff recommended approval. The Commission rejected that recommendation so the County went back to the drawing board.

The project known as Goleta Beach 2.0 was basically a 'managed retreat' project that was analyzed in the County's EIR. There are differences at Goleta Beach from other beaches, even in the County, in that the configuration was essentially created artificially during World War II. The beach has a different orientation, and unlike other beaches is more like a bay. The County worked with Gary Griggs, who is a recognized expert in sea level rise and erosion issues who has presented at the Coastal Commission. The revetment for which they seek approval actually has had no negative impact to downcoast beaches. We reviewed the EIR alternatives, and based on the project and alternatives analyzed the current proposal to keep the revetment is the least environmentally damaging.

The County is appreciative of the staff recommendation, and overall the conditions, including the term of the permit as well as the monitoring requirements are reasonable and acceptable. County staff was going to be communicating with CCC staff on some minor revisions, to make compliance more feasible, such as limiting the required engineering reports to one time per year.

They emphasized that this beach is recipient of 1.5 million beach visits per year. The County commissioned a study done by the County Trails Council, which included a survey to verify the income levels of the beach visitors, generally. The study confirmed that this beach is used 9x more than average by lower income visitors, using federal standards for low income. Supervisor Wolf reiterated that this truly is "the peoples' beach" for Santa Barbara County. It is accessible and available not only to all income levels, ages, levels of physical ability, but actually some 30% of beachgoers arrive on foot or by bicycle. The County contemplates additional access improvements, such as a dedicated MTD bus turnout on a planned new bridge to increase that accessibility.

In addition, she emphasized that there is no other public access point to the coast between this beach and the County's Arroyo Burro beach, which is five miles east, and which has major parking issues. The County does not charge any fees for public parking at these County beach parks, and the Board of Supervisors has to date resisted attempts to change that. The City of Santa Barbara does charge parking fees at City managed beaches.

We discussed that there remains some opposition to the permit, from EDC on behalf of Santa Barbara Surfrider. However, the local Sierra Club chapter as well as other local environmentalists have weighed in in favor of this solution, based on the information that the EIR disclosed, especially as it has been recognized as an environmental justice issue for Sierra Club.

We discussed that we had both received a mass e mail from EDC on May 7 that referenced a 'compromise' proposal supported by EDC, and that stated that EDC had submitted evidence to the Commission of adverse impacts to sand supply. Supervisor Wolf did not know what that 'compromise' proposal is, and had to date not seen any evidence from EDC to contradict the County's conclusion that retaining the revetment has not and will not, for the next thirty years, negatively impact sand supply. Nothing of that nature was submitted to the Board of Supervisors when they were considering the project. She also noted that for five miles downcoast, the beaches are not accessible to the public. Access to the Hope Ranch beach is over a private road that is gated. Access to More Mesa is across private property, and down a steep bluff. To the most westerly end of the park, there is a point that people cannot get around in certain conditions, but there is no impairment to lateral access from that point east.

She also emphasized that the revetment is covered by sand most of the time. Photos that show exposed rocks, for example from the major storm of 2014, do not disclose that within two weeks the rocks were naturally covered with sand again. The County had assumed they would have to replenish the sand that was exposed in March of 2014, but nature took care of the problem almost immediately. We talked about the claim that when the rocks are periodically exposed, there is a 'visual' impact. We discussed that this impact is quite limited when compared, for example, to the Broad Beach revetment or the Solana Beach seawalls.

May 7, 2015 /s/ Jana Zimmer

APR 80 2015 BR

EX PARTE COMMUNICATION DISCLOSURE FORM

Child Coasia Commission South Central Coast District

 Name or description of project: <u>Goleta Beach</u> Date and time of receipt of communication: <u>April 28, 2015, 1:30 pm</u> Location of communication: <u>Grover Beach</u> (If not in person, include the means of communication, e.g., telephone, e-mail, etc.) Identity of person(s) initiating communication: <u>Supervisor Salud Carbajal</u> Identity of person(s) on whose behalf communication was made: <u>Supervisor Salud Carbajal</u> Identity of person(s) receiving communication: <u>Erik Howell</u> Identity of all person(s) present during the communication: <u>Mayor John Shoals,</u> City Manager Jim Lewis, Supervisor Salud Carbajal Complete, comprehensive description of communication content (attach complete set of any text or graphic material presented): Supervisor Salud Carbajal stated his support for maintaining Goleta Beach. 	Filed by Commissioner: Erik Howell
 3) Location of communication: Grover Beach (If not in person, include the means of communication, e.g., telephone, e-mail, etc.) 4) Identity of person(s) initiating communication: Supervisor Salud Carbajal 5) Identity of person(s) on whose behalf communication was made:	1) Name or description of project: Goleta Beach
 3) Location of communication: Grover Beach (If not in person, include the means of communication, e.g., telephone, e-mail, etc.) 4) Identity of person(s) initiating communication: Supervisor Salud Carbajal 5) Identity of person(s) on whose behalf communication was made:	2) Date and time of receipt of communication: <u>April 28, 2015, 1:30 pm</u>
 4) Identity of person(s) initiating communication: Supervisor Salud Carbajal 5) Identity of person(s) on whose behalf communication was made:	
 5) Identity of person(s) on whose behalf communication was made:	(If not in person, include the means of communication, e.g., telephone, e-mail, etc.)
Supervisor Salud Carbajal 6) Identity of persons(s) receiving communication: 7) Identity of all person(s) present during the communication: Mayor John Shoals, City Manager Jim Lewis, Supervisor Salud Carbajal Complete, comprehensive description of communication content (attach complete set of any text or graphic material presented):	4) Identity of person(s) initiating communication: Supervisor Salud Carbajal
7) Identity of all person(s) present during the communication: <u>Mayor John Shoals,</u> City Manager Jim Lewis, Supervisor Salud Carbajal Complete, comprehensive description of communication content (attach complete set of any text or graphic material presented):	
City Manager Jim Lewis, Supervisor Salud Carbajal Complete, comprehensive description of communication content (attach complete set of any text or graphic material presented):	6) Identity of persons(s) receiving communication: Erik Howell
City Manager Jim Lewis, Supervisor Salud Carbajal Complete, comprehensive description of communication content (attach complete set of any text or graphic material presented):	7) Identity of all person(s) present during the communication: Mayor John Shoals,
any text or graphic material presented):	
Supervisor Salud Carbajal stated his support for maintaining Goleta Beach.	
	Supervisor Salud Carbajal stated his support for maintaining Goleta Beach.

Date

Signature of Commissioner

TIMING FOR FILING OF DISCLOSURE FORM: File this form with the Executive Director within seven (7) days of the ex parte communication, if the communication occurred seven or more days in advance of the Commission hearing on the item that was the subject of the communication. If the communication occurred within seven (7) days of the hearing, provide the information orally on the record of the proceeding and provide the Executive Director with a copy of any written material that was part of the communication. This form may be filed with the Executive Director in addition to the oral disclosure.