



BOARD OF SUPERVISORS
AGENDA LETTER

Agenda Number:

Clerk of the Board of Supervisors
105 E. Anapamu Street, Suite 407
Santa Barbara, CA 93101
(805) 568-2240

Department Name: Community Services
Department No.: 052
For Agenda Of: August 22, 2017
Placement: Departmental
Estimated Tme: 2.5 hours
Continued Item: No
If Yes, date from: N/A
Vote Required: Majority

TO: Board of Supervisors
FROM: Department George Chapjian, Community Services Director (805) 568-2467
Director:
Contact Info: Brian Yanez, Deputy Parks Director (805) 568-2475
SUBJECT: Goleta Beach Coastal Development Permit No. 4-14-0687 Amendment
Goleta Beach Park; Second Supervisorial District

County Counsel Concurrence

As to form: Yes

Other Concurrence: Risk Management

As to form: N/A

Auditor-Controller Concurrence

As to form: N/A

Other Concurrence:

As to form: N/A

Recommended Actions:

That the Board of Supervisors:

- a) Authorize Community Services staff to submit an application to the California Coastal Commission (CCC) to amend CDP No. 4-14-0687 for the Goleta Beach Project to retain the 948-foot emergency rock revetments, inclusive of a 75-foot pier revetment reinforcement, pier repairs and additional rock revetment in front of Goleta Sanitary District's (GSD) sewer vault and outfall installed at Goleta Beach Park pursuant to Emergency Coastal Development Permits (ECDPs) No. 4-17-0013 (Attachment A), No. G-4-17-0015 (Attachment B) and Goleta Sanitary District (GSD) ECDP No. 4-17-0011 (Attachment C); and
- b) Determine that the submittal of an application to amend CDP No. 4-14-0687 is statutorily exempt from the California Environmental Quality Act pursuant to California Public Resources Code section 21080.5 and the Guidelines for the Implementation of CEQA, 14 CCR Section 15002(l) and 15251(c) (certified regulatory plan in-lieu-of EIR), and direct staff to post the attached Notice of Exemption (Attachment D) on that basis; or
- c) Provide other direction to staff.

Summary Text:

In April 2017, staff presented a report to the Board on the necessary emergency measures taken to protect Goleta Beach Park and its facilities from several major storms. In January and February 2017,

Goleta Beach Park was impacted by strong wave erosion and high tides resulting in the loss of approximately 30,000 cubic yards of beach sand, approximately 0.75 acres of parkland from the central developed area of Goleta Beach Park, and erosive damage at the base of the Goleta Beach pier. These storms followed major coastal erosion from an unusually severe storm in March 2014, which eroded 6-8 feet of sand from the beach leaving the Park open to direct wave attack. In addition, the recent severe five year-long drought eliminated sediment and sand flow to the coast from area streams along the South Coast resulting in region-wide beach erosion. When combined with major beach erosion from recent severe storm seasons, this cut off supply of sand has led to severe erosion at Goleta Beach and other area beaches. In particular, the absence of sediment run-off into the Goleta Slough has deprived Goleta Beach and beaches downcoast of a major source of sand supply. Due to this, Santa Barbara County Flood Control has been unable to nourish the beach by depositing the sediment run-off. The erosion that has impacted beach width at Goleta Beach since March 2014 will be partially alleviated by the scheduled deposit of an estimated 65,000 cubic yards of beach grade sediment by Flood Control in late 2017.

In response to major shoreline erosion in early 2017 and the high potential of further damage to park facilities, infrastructure and the pier, the following emergency permits were granted in January and February 2017 by the CCC to the County and Goleta Sanitary District (GSD):

- ECDP No. G-4-17-0013 (February 14, 2017) authorized the County to install 487 linear feet of rock revetment.
- ECDP No. G-4-17-0011 (February 15, 2017) authorized GSD to install 20 linear feet of rock revetment at its sewer vault and outfall.
- ECDP No. G-4-17-0015 (February 22, 2017) authorized the County to install 461 linear feet of rock revetment, inclusive of 75 feet of reinforced pier revetment and repairs to the base of the pier, and additional rock covering the 20 linear feet of revetment that GSD installed in front of its to protect parkland.

The aforementioned emergency rock revetments were installed between two existing rock revetments immediately to the east and west at Goleta Beach Park (Revetment Map, Attachment E). The total cost associated with the County's emergency repairs to install 948 feet of rock revetment, inclusive of 75 feet of reinforced pier revetment and repairs to the base of the pier, was approximately \$950,000.

Conditions of emergency permits require either removal of the emergency protective measures or submission of a coastal development permit (CDP) application to retain them. Although GSD applied for and obtained an emergency permit to protect its sewer vault and outfall separately from the County, the application to amend the County's CDP No. 4-14-0687 (Attachment F) will address all three emergency permits pursuant to CCC staff recommendation.

County staff has worked with environmental consultants and coastal engineers in conjunction with GSD's staff and consultants to evaluate the retention or removal of the emergency protections. Retaining the 948 foot emergency rock revetment, inclusive of the 75-foot pier revetment reinforcement, pier repairs and additional rock revetment in front of GSD's sewer vault and outfall will require the County to submit an application to the CCC on or before September 30, 2017 for an amendment to CDP No. 4-14-0687 issued in December 2015, including an amended Adaptive Management Plan that will address managed retreat.

During a July 13, 2017 special Parks Commission meeting, staff presented information about the retention or removal of the 948 foot rock revetment. Based on compiled research, CSD recommends retaining the 948 foot rock revetment, inclusive of the 75-foot pier revetment reinforcement, pier repairs and additional rock revetment in front of GSD's sewer vault and outfall in order to protect the park and

its recreational facilities while staff continues to monitor and assess long term trends and effects following the drought and significant storm events over the past several years.

As demonstrated during past major storms, removal of the revetments, particularly during a period of historically narrow beach width, would likely expose the Park to further damage or destruction during major storms. In addition, since 2015 the County has required exhaustive personnel time and expended approximately \$2 million in emergency protections and repairs to Goleta Beach Park.

Alternatives to rock revetments were researched for the purpose of shoreline protection at Goleta Beach but were not considered viable protection measures (see Page 5 for more detail on the alternatives considered). Installation of cobble berms in lieu of larger rock revetments was one alternative considered. Noble Consultants, an internationally recognized coastal science and engineering firm, completed a Shoreline Management Assessment (Attachment G), which includes analysis of the impacts and effectiveness of cobble berms in comparison to that of rock revetments. Noble Consultants was the firm that provided the original design for a cobble berm project for the City of Ventura (Surfers Point).

Noble Consultants' report concludes that the use of cobble to protect important shoreline features, particularly in a location where not historically present in such substantial volume, is an unproven technology, is considered experimental, and might not protect the Park during major storms. While cobble berms might provide some level of shoreline protection and perhaps slow shoreline erosion, there are few scientific studies that document this claim. There is debate within the few scientific studies available whether cobble fixes the shoreline in place like a revetment (which drastically slows erosion). Others in the scientific community assert that cobbles are mobile and reform under wave attack, allowing the shoreline to more gradually retreat, which might in turn still potentially expose Park facilities to damage or destruction. Further, the consensus in the scientific literature is that cobbles would be periodically dispersed across the beach by wave attack, changing the historically sandy character of Goleta Beach and requiring continual maintenance or importation of additional cobbles with related expense.

Cobble berms installed on other West Coast beaches, such as Surfers Point and C-Street in Ventura and Lookout State Park in Oregon have shown mixed effectiveness in protecting the shoreline. For example, at Surfers Point, even after installation of the cobble berm at this historically cobble beach, in order to protect its amenities, the City of Ventura sought two emergency permits for the installation of a 265 foot long rock revetment at a cost of over \$400,000 to protect City facilities during the 2015-2016 El Niño. Apparently, the cobbles from the berm had been displaced downcoast, leaving insufficient protection for park facilities. The Lookout State Park cobble berm appears to have required regular cobble replenishment due to dispersal of cobbles along the coast, with associated maintenance costs. Further, coastal protection at this location does not rely solely on cobbles but is also provided by a series of artificial dunes with a geotextile sand bag core.

The retention of the 948 foot emergency rock revetment, inclusive of the 75-foot pier revetment reinforcement, pier repairs and additional rock revetment in front of GSD's sewer vault and outfall, will protect the Goleta Beach Park amenities, facilities, infrastructure, parking lots, pier, bike trail and restaurant. Staff will return to the Board at a future hearing date to consider the CCC's permit conditions for retention of the revetment. Permit conditions would likely continue to include beach and revetment monitoring and beach nourishment based on an amended Adaptive Management Plan to include phased managed retreat (Attachment H).

Background:

Goleta Beach Park is a 29-acre park that accommodates over 1.5 million visitors annually. The Park's recreation amenities include a 1,500-foot long fishing and pedestrian pier, safe swimming, surf fishing, boat launch and storage, a segment of the California Coastal Trail, picnic/BBQ facilities with lawn and shade trees, restaurant, nature observation, marine research and education, and full access for persons with disabilities (sand accessibility, parking, picnic and play areas). Goleta Beach provides over 500 free coastal parking spaces and access to beach. Furthermore, its location is less than a mile from Old Town Goleta and Isla Vista, two dense urban areas with a high proportion of low-income residents that use the Park regularly. As the largest source of free coastal access parking in the County, maintaining Goleta Beach Park is key to implementing the Coastal Act provision to provide "maximum access for all people" to coastal recreational opportunities. (Public Resources Code, § 30210). Recent park investments include:

- \$2 million in emergency protective measures since 2015; and
- \$5 million in recent park improvements since 2012, including:
 - New access bridge (anticipated completion September 2017);
 - New bus stop;
 - Re-routed bike path;
 - Renovated restrooms;
 - Re-built 200-300 guest group BBQ/picnic areas; and
 - Lift station rehabilitation.

From 1995 through 2014, Goleta Beach has experienced periods of sustained wide sandy beaches as well as periods of beach and shoreline erosion. During this 19 year period, Goleta Beach Park has also experienced periods of extensive shoreline erosion resulting in the loss of coastal recreation and other park amenities subsequent to a series of El Niño-type storms and strong wave activity. The cost incurred to protect and restore the beach and park during that period totaled approximately \$10 million in County, State and Federal funding, with approximately \$3 million being spent on protections and repairs, \$6 million being spent on beach nourishments and \$1 million being spent on management plans. In 2002 and 2005, the County received permits from the CCC for 1,200 feet of temporary emergency rock revetments to protect the west end of the Park; a condition of these permits required the County to develop a management strategy for long-term protection of the park. After years of environmental and programmatic studies and analysis, on May 13, 2015, the CCC approved, and on December 28, 2015 issued, CDP No. 4-14-0687 for retention of the revetments for a period of up to 20 years with certain conditions. These conditions include beach and revetment monitoring and an Adaptive Management Plan to protect the park facilities, and beach nourishment on incremental revetment exposure.

Since December of 2015, the County has expended an estimated \$2 million for emergency repairs and protective park installations at Goleta Beach Park. Subsequent to the 2015/2016 El Niño storm season that eroded over 10,000 square feet of the unprotected central park lawn area, the CCC approved an amendment to CDP No. 4-14-0687 to retain 415 feet of 10-12 foot high cobble and soil-filled geotextile cells installed under emergency conditions in March 2016. The amendment included similar conditions of beach and revetment monitoring and incremental revetment coverage pursuant to the original CDP.

In January and February 2017 the CCC issued four emergency permits in response to coastal damage allowing the County and GSD to take the necessary measures to protect Goleta Beach Park. The first emergency permit allowed the County to install a sand berm to temporarily safeguard unprotected parkland and the parking lot west of the restaurant. The sand berm was destroyed by wave action within two days. The other three emergency permits (ECDP Nos. G-4-17-0013 and G-4-17-0015 for County

and ECDP No. 4-17-0011 for GSD) authorized the installation of a total of 948 feet of emergency rock revetment, inclusive of the 75 foot reinforced pier revetment, pier repairs, and the 20 foot rock revetment in front of GSD's sewer vault and outfall. The storms in January and February were declared disasters by FEMA (DR-4305 and DR-4308, respectively), and caused substantial coastal damage to Goleta Beach, removing an estimated 30,000 cubic yards of sand and eroding approximately 0.75 acres of parkland, including destruction of the recently installed 415 feet of cobble and soil-filled geotextile cells.

Alternatives Considered:

Staff considered other alternatives to retaining the revetment, including:

- Removal of the revetment
- Use of cobble in place of the revetment
- Lowering the height of the revetment

Each of these alternatives is discussed below, along with the basis for not recommending pursuing each alternative.

Removal of the Revetment:

One alternative staff analyzed is the removal of the recently installed 948 feet of emergency revetments. Under this alternative, staff would recommend retaining the 75 feet of reinforced pier revetment and repairs to the base of the pier. The reinforced pier emergency rock revetment protects the restaurant, restrooms and parking lot and maintains access to the pier. Therefore, the remaining 873 feet of the rock revetment would be removed and relocated to a yet to be determined location. Staff is not recommending this alternative as Goleta Beach Park recreational features, facilities (restroom #2 and picnic areas), infrastructure (sewer, electrical and water) and parking lot #3 would not be protected by the revetment from future storms and wave erosion. Further, costs associated with the removal of the rock revetments are estimated to be over \$700,000.

GSD evaluated relocation of its sewer vault and outfall as an alternative in the event the revetment is removed, which included construction considerations (sequencing, phasing, impacts to surroundings, etc.), feasibility and expected longevity, hydraulic considerations (temporary bypass sizing and impacts to the outfall/treatment plant effluent facilities), construction costs, project durations, and permitting requirements. Costs associated with GSD's relocation of its sewer vault and outfall would exceed \$3,000,000 and GSD does not consider this to be feasible at this time (GSD Technical Memorandum, Attachment I).

Removal of the remaining 873 foot emergency rock revetment would require the County to do the following:

1. Submit a separate, new CDP application to the CCC on or before September 30, 2017 to retain the repairs to the base of the pier (as well as the 75-foot reinforced pier rock revetment).
2. Submit a managed retreat plan for the unprotected area of the park (including relocation of utilities, infrastructure and facilities).
3. Remove 873 feet of emergency revetment by a date that would be determined by the CCC. GSD would be responsible for its emergency permit actions and would be required to seek its own CDP for retention of rock revetment protecting its sewer vault.
4. In some instances, a permit may be required for removal (if required by this Emergency Permit) by the date specified in this Emergency Permit.

Cobble Berms:

Use of cobble for the purpose of shoreline protection was considered and rejected as a viable protection measure at Goleta Beach. While cobble is present at Goleta Beach, the beach has not been historically dominated by extensive cobble mounds found on some other area beaches and points. While substantial amounts of cobble are sometimes present, such as during the 2015-2016 El Niño, they do not accumulate in large mounds such as those found at El Capitan Point or Surfers Point in Ventura. This might be due to the fact that Goleta Beach is a sand spit fronting a historic deep water bay (and now large salt marsh) or that natural coastal processes do not typically deposit large volumes of cobbles at this location.

Dispersal of cobbles across the beach would take up more space than existing revetments and would interfere with safe lateral beach access to a greater degree than revetments. During low sand years, cobble would become exposed, interfering with both lateral and vertical beach access. Similar to Surfers Point, with dispersal of cobbles after major storms, the Park shoreline could be exposed to wave attack and damage. Descending exposed cobbles and the scarp of developed park land would significantly reduce safe beach access due to the difficulty of descending the scarp and crossing the cobbles. Particularly in winter months, strong waves would likely push cobbles landward creating a steeper berm that would impede vertical beach access. Cobbles are also difficult to cross, slippery, unstable and painful to those without shoes.

As stated above, major long lasting cobble berms are not a dominant natural feature at Goleta Beach and installation of such shoreline protection might have substantial effects on biological resources. Cobble berms take up a large amount of space on the beach, which would bury sandy intertidal habitat and interfere with shorebird foraging habitat to a greater degree than existing revetments. Based upon review of the Surfer's Point project and initial discussions with Noble Consultants, it appears that to be effective in slowing shoreline erosion and providing protection to Goleta Beach Park, a cobble berm would need to be roughly 13 feet in height and approximately 100 feet in width at the base. Such a berm would cover 5 times that amount of beach as the existing revetments, leave the Park open to periodic damage, require substantial maintenance, and changes the natural character of the beach.

Cobble berms are not recommended as a protective measure at Goleta Beach for the following reasons:

- Use of cobble as a shoreline protective measure continues to be experimental.
- Cobble berms lack substantial supporting scientific research to verify their efficacy in shoreline protection.
- Reoccurring maintenance costs:
 - City of Ventura (Surfers Point) recently made two emergency repairs to their cobble berm with 265 feet of a larger rock revetment.
- As cobble in large amounts is not natural to Goleta beach, it might have impacts to biological resources.
- Potential adverse effects on lateral and vertical access.

Even with case studies, replacing a small or large length of existing revetment would be a test case for how a cobble berm with no revetment would perform as a coastal protection device at Goleta Beach.

Reduce Height of 873-foot long Rock Revetment:

Reduction in height of the emergency rock revetment constructed in 2017 would reduce the amount of revetment that is exposed above the sand during low sand years. However, a reduction of the revetment's 11-foot height would likely result in the creation of a steep-sided cliff or scarp where the

park elevation is significantly higher than the reduced height revetment rather than a smooth slope from the park down to the beach which in turn would inhibit coastal access at Goleta Beach Park. Furthermore, the 11-foot high revetment is already shorter than most typical new revetments which are up to 16 feet in height and designed to minimize wave over-topping. Altering the dimensions of the revetment from its existing, engineered dimension will not ensure that the revetment performs as intended, thereby exposing coastal-related recreational facilities and Park infrastructure to erosion, damage, or destruction due to wave run-up and flooding.

Next Steps:

County staff will package an application for submittal to the Coastal Commission by September 30, 2017. The CCC staff will have 30 days to review the application to determine whether or not it is complete for processing. Once the application is deemed complete, CCC staff will process the application and bring it to a CCC hearing for consideration. Once the Commission has acted on the permit, staff will inform the Board of the decision, including review of any conditions and acceptance of the permit.

Permitting and CEQA:

The Coastal Commission has previously certified a Local Coastal Program for Santa Barbara County. Pursuant to Section 30601.3(a) of the California Coastal Act (Public Resources Code sections 30000 et seq.), the applicant, appropriate local government, and the Coastal Commission Executive Director may agree to consolidate permit applications for a project that spans both local and state jurisdictions, thus allowing the Coastal Commission to process a single application covering the entire project.

In a letter to Coastal Commission staff dated March 4, 2015, County requested that the Coastal Commission assume jurisdiction over all activities associated with the Goleta Beach Project (CDP No. 4-14-0687). The County of Santa Barbara, as both the applicant and the local government, consented to and facilitated this consolidated jurisdictional process, and the Coastal Commission's Executive Director agreed.

Section 13096(a) of the Coastal Commission's administrative regulations (Title 14 of the California Code of Regulations, or C.C.R.) requires Commission approval of a Coastal Development Permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of CEQA.

As the decision-maker on the application for the CDP Amendment, the Coastal Commission will conduct environmental review, if necessary, pursuant to its certified state regulatory program. (Pub. Resources Code, § 21080.5.) This will include analyzing any project alternatives or feasible mitigation measures, if appropriate.

The authorization to submit the application for the CDP Amendment and, if approved by the Coastal Commission, the acceptance of the terms and conditions of the CDP, will therefore be in compliance with CEQA, pursuant to Public Resources Code section 21080.5 and CEQA Guidelines for Implementation of CEQA, 14 CCR Sections 15002(l) and 15251(c) (certified regulatory plan in lieu of EIR).

Risk:

If the Board directs staff to remove the 948 feet of rock revetment, the most developed park facilities and infrastructure will be exposed to erosion and destruction during major storm events. If the County chooses not to submit an application to amend CDP No. 4-14-0687 on or before September 30, 2017, the existing ECDPs will expire.

Fiscal and Facilities Impacts:

Budgeted: Yes

Fiscal Analysis:

The estimated cost for compilation of a permit application is \$150,000 and is funded through Parks Committed Fund Balance.

Staffing Impacts:

N/A

Special Instructions:

After Board action, please distribute as follows to Jill Van Wie, Community Services Department:

1. Minute Order

Attachments:

- A. ECDP G-4-17-0013
- B. ECDP G-4-17-0015
- C. ECDP G-4-17-0011
- D. CEQA Notice of Exemption
- E. Revetment Map
- F. CDP 4-14-0687
- G. Noble Shoreline Management Assessment
- H. Proposed Amended AMP with Phased Managed Retreat Options
- I. Goleta Sanitary District Technical Memorandum
- J. Goleta Beach PowerPoint, August 22, 2017

Authored by:

Jill Van Wie, Capital Division Manager, Community Services Department