



**Agenda Item B.11**  
**CONSENT CALENDAR**  
**Meeting Date: July 16, 2019**

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**TO:** Mayor and Councilmembers

**FROM:** Peter Imhof, Planning and Environmental Review Director

**SUBJECT:** Letter of Support for National Fish and Wildlife Foundation Grant Application for the Goleta Bay Kelp Forest Restoration Project

**RECOMMENDATION:**

Authorize the Mayor to sign a letter in support of a National Fish and Wildlife Foundation grant application for the Goleta Bay Kelp Forest Restoration Project.

**BACKGROUND:**

The Santa Barbara County Community Services Department – Parks Division (County Parks Division) in partnership with Bob Kiel, Michael Rattray and others is pursuing a kelp forest restoration project in Goleta Bay. The project would expand a successful, one-acre pilot project already permitted by the Coastal Commission to 13.3 acres. The purpose of the project is to re-establish a sand-dwelling kelp forest in Goleta Bay in an effort to enhance marine wildlife habitat and, by attenuating currents and wave energy, help protect the shoreline from erosion due to storm surge and sea level. Historically, Goleta Bay supported large kelp forests, which acted as a natural shoreline buffer, but which were destroyed by the 1982-83 El Niño storms and have not recovered. The existing Coastal Development Permit for the pilot project expires on December 30, 2020 and a new permit will be needed for the restoration project expansion.

As described in more detail in the grant pre-proposal (Attachment 1), the project would include installation and monitoring of clustered, approximately 3-foot long granite columns within a 13.3-acre area of marine habitat and implementation of adaptive management strategies. These granite columns would provide a substrate for kelp plants to affix to, kick-starting the undersea reforestation process. Granite posts would also include “octocolumns” with recesses intended to provide habitat and safe harbor for the California two-spotted octopus, a natural predator of kelp-eating crabs. Attachment 1 shows the exact project location in Goleta Bay.

To obtain funding, the Goleta Bay Kelp Forest Restoration Project is seeking a \$300,000 grant from the National Fish and Wildlife Foundation. Following pre-application in May, the project has been placed on a short list for further consideration, with the full grant application due on July 22, 2019.

The project proponents are also seeking support and/or commitments from the Beach Erosion Authority for Clean Oceans and Nourishment (BEACON), UCSB, Goleta Sanitary District, and Friends of Goleta Beach, as well as local environmental and commercial diving organizations.

**DISCUSSION:**

This item seeks the Council's authorization to send a letter in support of the Goleta Bay Kelp Forest Restoration Project's National Fish and Wildlife Foundation grant application. As noted above, this project, if permitted by the Coastal Commission, would expand an existing, successful 1-acre kelp forest restoration pilot project in Goleta Bay to 13.3 acres by placing granite posts at 20-foot intervals in the sandy seafloor. The purpose of the project is to re-establish a sand-dwelling kelp forest in an effort to enhance the marine wildlife habitat and reduce shoreline erosion at Goleta Beach. The project is envisioned as a means to restore historic kelp forests in Goleta Bay and as an alternative to hard shoreline projection structures along Goleta Beach.

**ALTERNATIVES:**

The City Council could choose not to authorize a letter of support for this project's grant application.

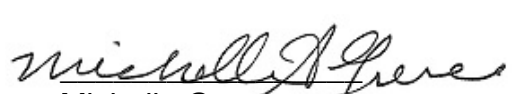
**Reviewed By:**

**Legal Review By:**

**Approved By:**

  
Kristine Schmidt  
Deputy City Manager

  
Michael Jenkins  
City Attorney

  
Michelle Greene  
City Manager

**ATTACHMENTS:**

1. Goleta Bay Kelp Forest Restoration Project NFWF Pre-proposal
2. Letter of Support for the Goleta Bay Kelp Forest Restoration Project grant application

## **ATTACHMENT 1**

Goleta Bay Kelp Forest Restoration Project NFWF Pre-proposal





EasyGrantsID: 66085

National Fish and Wildlife Foundation – National Coastal Resilience Fund 2019, Pre-Proposal

Title: Goleta Bay Kelp Forest Restoration Project (CA)

Organization: Santa Barbara County Parks Division

## Grant Request Information

Title of Project

Goleta Bay Kelp Forest Restoration Project (CA)

Project Description

Santa Barbara County Community Services Department – Parks Division (County Parks Division) in partnership with Bob Kiel and the Goleta Bay Kelp Restoration Project propose to reestablish a sand-dwelling kelp forest that would enhance marine wildlife habitat and minimize shoreline impacts from sea level rise and related coastal hazards within Goleta Bay. Project metrics include: 1) approximately 13.3 acres of established marine habitat; 2) # critical facilities and properties within 1-mile radius of enhanced protection; and 3) # individuals reached by outreach, training, or technical assistance activities.

Abstract

The Project would facilitate expansion of an existing pilot study for kelp forest habitat restoration to enhance coastal resiliency within Goleta Bay and provide habitat for fish and marine wildlife. County Parks Division has identified this critical project given the proximity to a disadvantaged community and vulnerability of the Goleta Bay shoreline to severe storm damage, coastal erosion, and flooding. The Project would ultimately provide a natural buffer system to enhance resiliency to sea level rise, erosion, and severe storm surge events with attenuation of currents and wave energy. Proposed activities would include installation and monitoring of clustered granite columns and octo-columns within a 13.3-acre area of marine habitat, and implementation of adaptive management strategies for maximum project success. Project outcomes include measuring the total acreage of successfully established marine habitat and studying the potential correlation between kelp restoration and shoreline enhancement. The Project would utilize natural restoration methods proven to enhance natural storm mitigation services and reduce damage risk from episodic events, thereby implementing nature-based adaptive management strategies. Anticipated partners include Beach Erosion Authority for Clean Oceans and Nourishment, Friends of Goleta Beach, and jurisdictional regulatory agencies. Other partners would likely include UCSB, as well as local environmental and commercial diving organizations.

Project Location Description

The Project is in the Pacific Ocean offshore of the unincorporated area of Santa Barbara County, California. The U.S. Geological Survey identifies the Project area adjacent to the Santa Barbara Coastal drainage region (hydrologic unit code 18060013).

Total Amount Requested

\$300,000.00

Matching Contributions Proposed

\$300,000.00

Proposed Grant Period

01/01/2020 - 12/31/2022

Organization

Santa Barbara County Parks Division

Organization Type

State or Local Government



NFWF

EasyGrantsID: 66085

National Fish and Wildlife Foundation – National Coastal Resilience Fund 2019, Pre-Proposal

Title: Goleta Bay Kelp Forest Restoration Project (CA)

Organization: Santa Barbara County Parks Division

City, State, Country

Primary Contact

Position/Title

Phone and E-mail

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Jill Van Wie

Capital Division Manager

Ext: ; jvanwie@co.santa-barbara.ca.us

### Additional Contacts

Role	Name
Other Authorized Personnel	Marie Laule
Other Authorized Personnel	Bob Kiel
Other Authorized Personnel	Michael Rattray
Other Authorized Personnel	Greg Christman



NFWF

EasyGrantsID: 66085

National Fish and Wildlife Foundation – National Coastal Resilience Fund 2019, Pre-Proposal

Title: Goleta Bay Kelp Forest Restoration Project (CA)

Organization: Santa Barbara County Parks Division

### Matching Contributions

<b>Matching Contribution Amount:</b>	\$300,000.00
<b>Type:</b>	Cash
<b>Status:</b>	Pledged
<b>Source:</b>	Santa Barbara County Community Services Department
<b>Source Type:</b>	Non-Federal
<b>Description:</b>	The County will provide commitment for local match funding until the full proposal stage when exact amounts of other funding sources and in-kind services can be determined.

<b>Total Amount of Matching Contributions:</b>	\$300,000.00
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NFWF

EasyGrantsID: 66085

National Fish and Wildlife Foundation – National Coastal Resilience Fund 2019, Pre-Proposal

Title: Goleta Bay Kelp Forest Restoration Project (CA)

Organization: Santa Barbara County Parks Division

The following pages contain the uploaded documents, in the order shown below, as provided by the applicant:

Upload Type	File Name	Uploaded By	Uploaded Date
NCRF Pre-Proposal Narrative	Goleta Bay Kelp Restoration Pre-Proposal_Final.pdf	Laule, Marie	05/20/2019
Project Map	Figure 1_Regional Map.pdf	Laule, Marie	05/20/2019
Project Map	Figure 2_Project Area.pdf	Laule, Marie	05/20/2019

The following uploads do not have the same headers and footers as the previous sections of this document in order to preserve the integrity of the actual files uploaded.

## Goleta Bay Kelp Forest Restoration Project (CA)

### Pre-proposal Project Narrative

#### *Part I – Project Overview*

- a. **Priority Addressed:** Project Restoration and Monitoring
- b. **Project Type:**

Santa Barbara County Community Services Department – Parks Division (County Parks Division) in partnership with Bob Kiel and the Goleta Bay Kelp Restoration Project propose to expand the pilot study that is being completed for restoration and enhancement of a sand-dwelling kelp forest in Goleta Bay (a phenomenon unique to the Santa Barbara Channel), including a monitoring program. Phase II of the Goleta Bay Kelp Forest Restoration Project (Project) would use an innovative design approach to restore approximately 13.3 acres of kelp beds by installing clustered granite columns (in groups of three) and octo-columns (i.e., column with a chamber suitable for octopus inhabitation) embedded into the sea floor. The importance of alternating between clustered granite columns and octo-columns is that octopi – particularly the local Two Spot octopus – are a keystone species and control populations of kelp-eating invertebrates (e.g., kelp crabs and top snails) that would otherwise eat through the kelp and cause it to break off at the base. Building off of methods and strategies realized during the original pilot study, the Project would be a comprehensive program that factors in complex ecosystem and natural coastal processes.

Goleta Bay historically supported a 200-acre kelp forest that created a natural buffer between the inner shoreline and outer Santa Barbara channel by providing natural attenuation of short-term waves and currents. Kelp beds in Goleta Bay thrived due to their density and size, and supported a diverse marine wildlife ecosystem until the 1982-83 El Niño storms – one of the largest and most severe in recent history – decimated kelp beds along the entire south coast of California. Sand-dwelling kelp beds in the Goleta Bay have failed to recover naturally after almost 40 years. It is hypothesized that the size and location of the historic offshore kelp forest contributed to wide sandy beach conditions along the shoreline within Goleta Bay and protected Goleta Beach County Park infrastructure and University of California, Santa Barbara (UCSB) coastal bluffs from severe storm-induced damage. Monitoring of large-scale restoration to reestablish historic size and density of the kelp forest will be required to confirm this correlation. However, it is believed that natural habitat restoration of the offshore kelp forest would ultimately provide a natural buffer system to enhance coastal resiliency to sea level rise, erosion, and flooding along the Goleta Bay shoreline.

Goleta Beach County Park (Park) is a popular recreation resource that serves disadvantaged communities. The Park and adjacent coastal bluffs that support critical infrastructure for UCSB, Caltrans, Southern California Gas Company, and the Goleta Sanitary District have recently become increasingly exposed to coastal erosion, which is projected to accelerate with sea level rise. Impacts are projected to be as soon as 2030, which would have serious implications for critical infrastructure within the Park and further inland (i.e., regional-serving utilities and Santa Barbara Municipal Airport). The Project would enhance wave attenuation within Goleta Bay which would protect critical public utility infrastructure and regional recreational resources at the Park, as well as educational facilities at UCSB. Innovative approaches include nature-based adaptive management practices to reduce the damaging impacts of severe storm surge events that reaches the inner shoreline. The Project seeks to establish a kelp forest within the Goleta Bay to: provide critical habitat for sensitive fish and marine wildlife species; mitigate impacts of greenhouse gas emissions by acting as a carbon sink; as well as enhance natural storm mitigation against severe episodic events. Monitoring of restoration and enhancement activities for kelp forest reestablishment would allow for appropriate natural adaptive management to deal with future conditions of projected environmental stressors.

- c. **Project Support and Engagement:**

County Parks Division and Bob Kiel would co-lead Phase II of the Project and engage multiple partners, stakeholders, and volunteers throughout the life of the Project. Anticipated partners and stakeholders include

Beach Erosion Authority for Clean Oceans and Nourishment (BEACON), UCSB, Friends of Goleta Beach, California State Lands Commission, U.S. Army Corps of Engineers, and potentially California State Coastal Conservancy. Other partners would likely include local environmental organizations, such as Santa Barbara Channelkeeper and local commercial diving organizations. These partners would support the Project. Professional commercial divers would be trained to assist with column installation and others would be invited to volunteer with other elements of the Project (e.g., transport of columns to the site, photo documentation for reporting).

**d. Project Location:**

The Project area is located in the Pacific Ocean, and is in close proximity to Isla Vista, which is a designated disadvantaged community, as well as the Campus Point State Marine Conservation Area and Goleta Slough State Marine Conservation Area. The Project area is located offshore of the unincorporated area of Santa Barbara County, California, near UCSB. The Project area is adjacent to the U.S. Geological Survey Santa Barbara Coastal drainage region, hydrologic unit code (HUC) 18060013, which is a coastal HUC 8 watershed that drains to the sea (Figure 1). The Project area includes the Goleta Bay area east of Goleta Point (Campus Point) (Figure 2).

***Part II – Overview of proposed methods, outcomes, and activities.***

**1. Methods:**

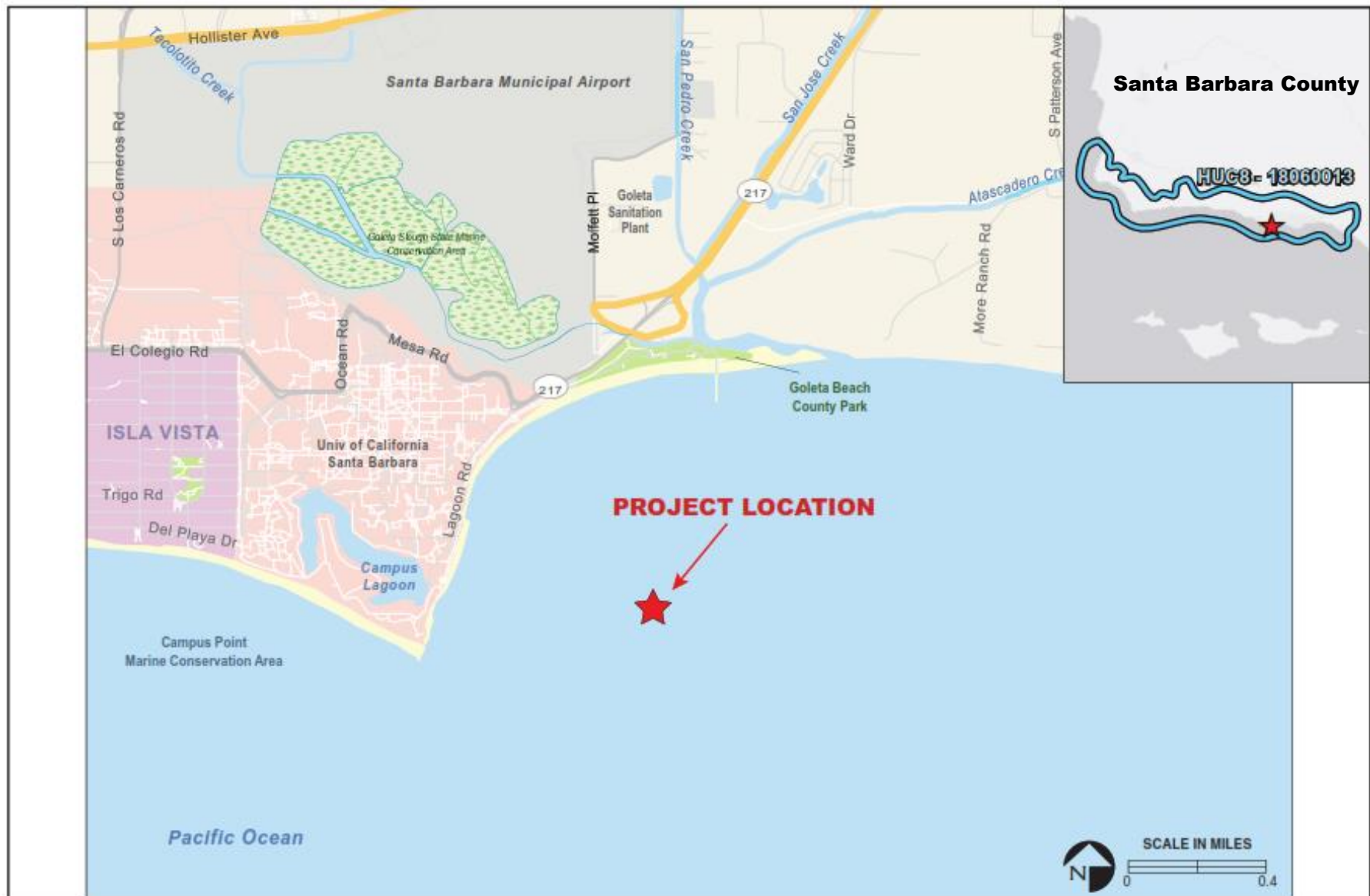
Based on input from key stakeholders and lessons learned during the pilot study, the County Parks Division and team intend to investigate adaptive approaches that would integrate natural coastal processes and seek to balance the Project's priorities of reestablishment of environmentally sensitive habitat while providing public benefits of protecting critical infrastructure and Park resources. The Project would perform monitoring of the approximate 13.3-acre restoration area to measure the effectiveness and track progress of restoration and enhancement activities. The Project design would consider the size and density of established kelp beds anchored to both types of columns in the Project area for maximum benefit. The proposed methods would utilize natural recruitment of kelp fronds and seek to achieve long-term sustainability. Additionally, the Project would be designed to record qualitative observations of the potential correlation between kelp restoration, sediment transport, and shoreline enhancement (e.g., effects on beach profiles).

**2. Project Outcome(s):**

The Project's expected outcome is to reestablish a sand-dwelling kelp forest in the Goleta Bay and promote adaptation to sea level rise and associated hazards through restoration and enhancement of kelp forest habitat suitable to attenuate currents and wave energy. The grant-funded project would allow for implementation of this restoration Project, with an innovative conceptual design to maximize nature-based restoration activities and establish a monitoring program. The adaptive habitat restoration and enhancement project would serve as an expanded pilot study for future efforts to increase coastal resiliency with kelp forest restoration on a larger scale. A monitoring plan would measure the effectiveness of kelp forest restoration and enhancement. A summary document of Project activities tracking restoration progress and adaptive management measures utilized throughout the Project would be submitted as a final component.

**3. Proposed Activities:**

The Project would include activities such as permitting; production and transport of granite columns and octo-columns; installation of columns on the sea floor; community and stakeholder outreach; training of commercial divers and volunteers; research and data collection; monitoring and reporting; and adaptive changes to project design, as needed. This Project would build upon almost 10 years of technical investigations and pilot study activities. It would allow the County Parks Division and team to take the next step in kelp forest restoration and enhancement activities to achieve the goals of this specific project. An interim and final report with documentation of the monitoring program would be submitted as a final component of this Project. The pilot study has been successful to date and the expanded program under this Project would help move towards the overall goal for reestablishment of the historic 200-acre footprint of kelp forest in Goleta Bay that provided multi-benefits of habitat for fish and marine wildlife species, as well as natural protection of the landward coastal community.





## **ATTACHMENT 2**

Letter of Support for the Goleta Bay Kelp Forest Restoration Project grant application





July 16, 2019

CITY COUNCIL

Paula Perotte  
Mayor

Kyle Richards  
Mayor Pro Tempore

Roger S. Aceves  
Councilmember

Stuart Kasdin  
Councilmember

James Kyriaco  
Councilmember

CITY MANAGER  
Michelle Greene

Kaity Goldsmith  
Manager, Marine Conservation  
National Fish and Wildlife Foundation  
1133 Fifteenth St., N.W., Suite 1000  
Washington, DC 20005

**RE: Letter of Support for the Goleta Bay Kelp Forest Restoration Project Grant Application**

Dear Ms. Goldsmith:

On behalf of the City Council, I would like to express the City of Goleta's support of the Goleta Bay Kelp Forest Restoration Project (Project) application to the National Coastal Resilience Fund 2019 Grant Program. The City of Goleta fully supports implementation of the Project.

Goleta Bay and landward facilities are vulnerable to coastal hazards and future sea level rise that could result in severe erosion, as well as potential damage to critical infrastructure that serves the community (e.g., Goleta Beach County Park, U.C. Santa Barbara campus, and regional public utilities). By increasing their resiliency to known coastal hazards, the Project would result in important co-benefits for marine wildlife resources and public coastal resources. The Project could enhance kelp habitat and serve as a nature-based shoreline protection solution. Enhanced kelp habitat under the Project could attenuate short-term waves and currents, and provide a buffer against severe storms, addressing potential shoreline impacts of projected sea level rise and coastal hazards. The City of Goleta supports the Project as a means to increase coastal community resiliency.

The City of Goleta particularly supports the Project's long-term benefits related to restoration and enhancement of a sand-dwelling kelp forest in the Goleta Bay, a phenomenon that we understand is unique to the Santa Barbara Channel. In addition to the benefits of kelp habitat restoration, the Project will create positive impacts on economic and social resources, which are important in all coastal communities.

We thank you in advance for your consideration of this grant request.

Sincerely,

Paula Perotte  
Mayor, City of Goleta