

City of Encinitas
City Council's Office

February 25, 2016

Valerie Termini, Interim Executive Director
Ocean Protection Council
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

Kristin Gaspar
Mayor

RE: Letter of Support for Cardiff Beach Living Shoreline Project – State Coastal Conservancy – Proposition 1 - Grant Proposal

Lisa Shaffer
Deputy Mayor

Dear Ms. Termini:

This letter is to express support for the State Coastal Conservancy Proposition 1 funding proposal for the planning and construction of the Cardiff Beach Living Shoreline Project. This proposal provides an opportunity to reduce the impacts from sea level rise and storm surges by maintaining a natural coastal dune system that enhances the natural environment while protecting Coast Highway 101.

Catherine S. Blakespear
Council Member

Since the 1980's, the Coast Highway 101 area has experienced coastal flooding on a routine basis due to high tides and storm surges. As sea level rise increases due to climate change, Coast Highway 101 will experience more frequent flooding and possible road closures impacting commercial, residential and emergency transportation. This section of Highway 101 is particularly vulnerable to future sea level rise and storms due to narrow beach widths, high levels of erosion and low or "at" grade roadway elevation.

Tony Kranz
Council Member

By restoring a dune system, a much needed ecological system may be re-established and potentially attract threatened Western Snowy Plover, Least Terns and other shorebirds. This multi-benefit project provides protection while maximizing ecological function along the shoreline.

Mark Muir
Council Member

The California State Parks (CSP) and the City of Encinitas are joint agencies with overlapping responsibilities in this section of the coastline and are working cooperatively to prepare for the future effects of sea level rise and protection of infrastructure and resources.

Karen P. Brust
City Manager

The City of Encinitas is strongly committed to this grant opportunity and is looking forward to working with the State on the implementation of this very unique and progressive "Living Shoreline Project." Thank you for your support on this innovative project. If you have any questions please contact Katherine Weldon, Shoreline Program Manager, at (760) 633-2632.

Sincerely,

Kristin Gaspar
Mayor

cc: City Council

CAPITOL OFFICE
STATE CAPITOL
SACRAMENTO, CA 95814
TEL (916) 651-4036
FAX (916) 651-4936

DISTRICT OFFICES
24031 EL TORO ROAD
SUITE 201A
LAGUNA HILLS, CA 92653
TEL (949) 598-5850
FAX (949) 598-5855

169 SAXONY DRIVE
SUITE 103
ENCINITAS, CA 92024
TEL (760) 642-0809
FAX (760) 642-0814

SENATOR.BATES@SENATE.CA.GOV
WWW.SENATE.CA.GOV/BATES

California State Senate

SENATOR
PATRICIA C. BATES
THIRTY-SIXTH SENATE DISTRICT



COMMITTEES
APPROPRIATIONS
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ON EMERGENCY MANAGEMENT
LEGISLATIVE ETHICS

February 22, 2016

Ms. Valerie Termini, Interim Executive Director
Ocean Protection Council
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

RE: SUPPORT – Cardiff Beach Living Shoreline Project – Proposition 1 Grant Proposal

Dear Ms. Termini:

This letter is to express my strong support for the State Coastal Conservancy Proposition 1 funding proposal for the planning and construction of the Cardiff Beach Living Shoreline Project. This proposal provides an opportunity to improve the resiliency and reduce vulnerability of Highway 101 to storms, erosion, and sea level rise. By maintaining a natural coastal dune system, the proposal enhances the natural environment while protecting the Coast Highway 101.

The Coast Highway 101 area has experienced routine coastal flooding from high tides and storm surges. If sea levels continue to rise, the Coast Highway 101 will be vulnerable to more frequent flooding and possible road closures impacting commercial, residential and emergency transportation. This section of Highway 101 is particularly defenseless to future sea level rise and storms due to narrow beach widths, high levels of erosion and low roadway elevation.

This project could also be an important step to establishing a habitat for the threatened Western Snowy Plover, Least Tern and other shorebirds. This multi-benefit project provides protection while maximizing ecological function along the shoreline.

Finally, this grant would facilitate research that would aid the future creation of living shorelines, combating against the harmful impacts of sea level rise. While no approach should be off the table in combating this problem, living shorelines may be preferable to other methods because they can provide coastal habitat and recreation areas, enhanced visual resources, and the continuation or improvement of ecosystem services. A pilot project, such as this one, would provide critical information needed to implement similar projects statewide.

For these reasons, I strongly support the Cardiff Beach Living Shoreline and ask you to approve the Proposition 1 grant proposal.

Sincerely,

A handwritten signature in black ink, appearing to read "Patricia C. Bates".

PATRICIA C. BATES
Senator, 36th District

Capitol Office
State Capitol, Room 2170
Sacramento, CA 95814
(916) 319-2076
Fax (916) 319-2176

District Office
804 Pier View Way, Suite 100,
Oceanside, CA 92054
(760) 433-7601
Fax (760) 433-7607

California Legislature



Colonel Rocky J. Chávez
Assemblymember, 76th District

Committees:
Budget
Budget Sub #2 – Education Finance
Health
Higher Education
Veterans Affairs

Valerie Termini, Interim Executive Director
Ocean Protection Council
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

RE: Letter of Support for Cardiff Beach Living Shoreline Project – State Coastal Conservancy - Proposition 1 Grant Proposal

Dear Ms. Termini:

This letter is to express my support for the State Coastal Conservancy Proposition 1 funding proposal for the planning and construction of the Cardiff Beach Living Shoreline Project. This proposal provides an opportunity to reduce the impacts from sea level rise and storm surges by maintaining a natural coastal dune system that enhances the natural environment, while protecting the Coast Highway 101.

This section of Highway 101 is particularly vulnerable to future sea level rise and storms due to narrow beach widths, high levels of erosion and low or “at” grade roadway elevation.

By restoring a dune system, a much needed ecological system may be re-established and potentially attract threatened Western snowy plover, Least Terns and other shorebirds. This multi-benefit project provides protection while maximizing ecological function along the shoreline.

The California State Parks (CSP) and the City of Encinitas are joint agencies with overlapping responsibilities in this section of the coastline and are working cooperatively to prepare for the future effects of erosion and storm damage.

As the Assemblymember of the 76th District, I fully support this effort by the City of Encinitas.

Respectfully,

A handwritten signature in cursive script that reads "Rocky J. Chavez".

Colonel Rocky J. Chávez
Assemblymember, 76th District

CALIFORNIA COASTAL COMMISSION

45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE (415) 904-5200
FAX (415) 904-5400
TDD (415) 597-5885



February 22, 2016

Valerie Termini
Interim Executive Director
Ocean Protection Council
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

**RE: Letter of Support for Cardiff Beach Living Shoreline Project –
State Coastal Conservancy – Proposition 1 Grant Proposal**

Dear Ms. Termini, OPC:

I am pleased to provide this letter of support from the California Coastal Commission staff for the State Coastal Conservancy's application to the Ocean Protection Council's Proposition 1 Grant Program, "Cardiff Beach Living Shoreline Project."

The grant would support important research on the efficacy of living shorelines as a sea level rise adaptation measure. Commission staff recognizes that while a range of adaptation approaches will necessarily be considered statewide to address sea level rise, living shorelines are often a preferred alternative to responses such as hard shoreline protection because they can provide benefits such as the creation of coastal habitat and recreation areas, enhanced visual resources, and the continuation or improvement of ecosystem services. The Cardiff Beach Living Shorelines Project would explore the use of a created dune system as a natural sea level rise adaptation approach to protect a vulnerable section of Highway 101 that provides critical public access, while restoring heavily-impacted habitat, both of which are priorities under the Coastal Act.

The engineering and effectiveness of soft, more natural, sea level rise adaptation measures in different types of environments is not well-known or tested, Commission staff believes pilot projects such as this one play a the critical role in providing information needed to implement these types of projects statewide. Many jurisdictions in Southern California are actively working on Local Coastal Program updates to address sea level rise, many of which are funded by the Coastal Commission LCP Local Assistance Grant Program. As such, this project represents a timely opportunity to develop our understanding of where living shorelines could be effectively implemented, what they need to succeed, and how they will need to be monitored and maintained over time.

Commission staff has reviewed the proposed feasibility plan for this project and has provided informal comments to the State Coastal Conservancy throughout the design development

Exhibit C

process. If the Conservancy moves forward with a pilot project, staff will continue to work with the Conservancy on ensuring the project is consistent with the Coastal Act and ways that the pilot project can be most useful for and transferable to other locations along the California coast.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Gabriel Buhr', with a horizontal line extending to the right.

Gabriel Buhr
Coastal Program Manager
San Diego District Office



401 B Street, Suite 800
San Diego, CA 92101-4231
(619) 699-1900
Fax (619) 699-1905
sandag.org

February 22, 2016

File Number 3200200

Ms. Cat Kuhlman, Executive Director
Ocean Protection Council
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

Dear Ms. Kuhlman:

SUBJECT: Letter of Support for the City of Encinitas' Cardiff Beach Living Shoreline Project – State Coastal Conservancy – Proposition 1 Grant Proposal

This letter is to express the support of the San Diego Association of Governments (SANDAG) for the State Coastal Conservancy Proposition 1 funding proposal for the planning and construction of the City of Encinitas' Cardiff Beach Living Shoreline Project.

San Diego's shorelines and beaches are assets to the environment and economy of the region. They provide critical habitat for a number of coastal species and also provide a recreation space for beach users. Beaches also act as a buffer to coastal erosion and sea level rise which threaten the region's infrastructure and coastal developments.

The restoration of coastal dune habitat along this stretch of coastline could offer relief from future erosion events by utilizing a living shoreline to protect coastal infrastructure. Unlike hardened structures, such as revetments or seawalls, living shorelines stabilize the coastline while also protecting coastal habitats and allows the shoreline to carry out natural processes. This project is consistent with SANDAG's Shoreline Preservation Strategy which emphasizes the use of beach preservation strategies that mimic natural processes to provide environmental quality, recreation, and property protection. Furthermore, this project would complement beach sand replenishment projects completed by SANDAG in 2001 and 2012 and may increase future cost effectiveness of similar programs.

SANDAG supports this proposal to restore the dune system along Cardiff Beach as a way to alleviate the impacts of sea level rise and coastal flooding. The Cardiff Beach Living Shoreline Project provides a multifunctional solution that addresses these problems while also improving pedestrian access along the highway, providing beach access, and creating potential habitat for rare and endangered plant and animal species. This project could serve as a model for other coastal areas facing similar challenges in the region and the state.

Sincerely,

CHARLES "MUGGS" STOLL
Director, Land Use and Transportation Planning

MST/KRI/SPI/asa

MEMBER AGENCIES

- Cities of*
- Carlsbad*
- Chula Vista*
- Coronado*
- Del Mar*
- El Cajon*
- Encinitas*
- Escondido*
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- North County Transit District*
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- San Diego County Water Authority*
- Southern California Tribal Chairmen's Association*
- Mexico*



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, California 92008



In Reply Refer To:
FWS-16B0197-16CPA0244

FEB 19 2016

Ms. Cat Kuhlman, Executive Director
Ocean Protection Council
1416 Ninth Street, Suite 1311
Sacramento, California 95814

Subject: Support for Cardiff Beach Living Shoreline Project's Application to the Ocean Protection Council's Proposition 1 Grant Program

Dear Ms. Kuhlman:

The U.S. Fish and Wildlife Service (Service) is writing this letter in support of the State Coastal Conservancy's application to the Ocean Protection Council's Proposition 1 Grant Program to fund the Cardiff Beach Living Shoreline Project. The project will restore coastal dunes between the Pacific Ocean and U.S.-Route Highway 101 within the City of Encinitas, California. The project includes construction of dunes that are 2,900 feet long by 60 feet wide through placement of 25,000 cubic yards of sand, installation of native dune plants, fencing, and designated pedestrian footpaths, as well as monitoring and outreach.

The dunes are designed to reduce vulnerability and improve resiliency of Highway 101 to storms, erosion, and sea-level rise. We enthusiastically support utilization of such green infrastructure because native habitat and their associated functions and services are being restored. The project will help reverse the decline in acreage of native dune habitats that occurred in Southern California with coastal development. It will support recovery of the western snowy plover [*Charadrius nivosus nivosus* (C. alexandrinus n.); a federally threatened and a state species of special concern] and the California least tern [*Sternula antillarum browni* (*Sterna a. b.*); a federal and state endangered species] by providing roosting and/or breeding habitat. The project also will expand available habitat to other species that utilize San Elijo Lagoon, which is just over 100 feet from the project site. Results that demonstrate project success could promote further restoration of coastal dunes and recovery of associated species. Additionally, it will provide otherwise lacking scientific data about viable alternatives concerning resiliency and adaptation to climate change.

Please contact Carolyn Lieberman of this office at 760-431-9440, extension 240, if you have any questions regarding this letter of support.

Sincerely,

G. Mendel Stewart
Field Supervisor



Valerie Termini
Interim Executive Director
Ocean Protection Council
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

February 22, 2016

RE: Letter of Support for Cardiff Beach Living Shoreline Project – State Coastal Conservancy - Proposition 1 Grant Proposal

Dear Ms. Termini,

The Climate Science Alliance –South Coast and the San Diego Regional Climate Collaborative (Climate Collaborative) are pleased to provide this letter of support for the State Coastal Conservancy’s application to the Proposition 1 Grant Program for the Cardiff State Beach Living Shoreline Project.

The Cardiff State Beach Living Shoreline Project proposes to restore native coastal dune habitat to serve flood-protection for an important stretch of Coast Highway 101 that abuts Cardiff Beach. The Proposition 1 funding would enable the City of Encinitas to protect the Highway from being further vulnerable to flooding and damages from large coastal storm events and serve an important demonstration project on how living shorelines techniques can be effective in addressing coastal flooding and sea level rise hazards.

The Climate Science Alliance and the Climate Collaborative also view the Cardiff State Beach Project as an important step towards our cooperative goal to increase expertise and implementation of Southern California living shorelines approaches. Although living shoreline techniques are being implemented on the East Coast and Gulf Coast, our Southern California shoreline dynamics and characteristics require that we develop a community of practice and refine what approaches may work best for safeguarding our unique shoreline and habitats. The Cardiff State Beach Living Shoreline Project is the first project in our south coast eco-region to explicitly design and implement dune restoration techniques to address coastal storm and sea level rise hazards, and we view it as an important case study.

If funded, our organizations are committed to working with the City of Encinitas and the State Coastal Conservancy to share the technical expertise and lessons learned from this project with our broad local, state, academic, and resource management partners through workshops and trainings on living shoreline approaches.



Exhibit C



We hope that you will support this project and recognize its importance at both the local and state level. Please feel free to contact us if you have any questions.

Thank you,

A handwritten signature in blue ink that reads "Laura Engeman".

Laura Engeman
Manager
San Diego Regional Climate Collaborative

A handwritten signature in black ink that reads "Amber Pairis".

Amber Pairis
Director
Climate Science Alliance – South Coast



Cat Kuhlman, Executive Director
Ocean Protection Council
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

February 2, 2016

**RE: Letter of Support for Cardiff Beach Living Shoreline Project –
State Coastal Conservancy – Proposition 1 Grant Proposal**

Dear Ms. Kuhlman, OPC:

I am pleased to provide this letter of support from [The Bay Foundation](#) for the State Coastal Conservancy's application to the Ocean Protection Council's Proposition 1 Grant Program, "Cardiff Beach Living Shoreline Project." This grant would help answer key questions in the efficacy of using living shorelines, such as dune restoration, as soft-scape alternatives for sea-level rise and flood protection on the California coast.

As an ecologist, I personally recognize the need to test and monitor pilot living shorelines projects in California. While there is evidence that natural infrastructure, whether that be restored ecosystems or hybrid solutions, can enhance resilience to sea-level rise and storms associated with climate change on the east coast of the U.S., there are very few local examples of such projects in California, especially in Southern California. Projects such as the Cardiff Beach Living Shorelines Project need to be implemented and closely scientifically monitored to understand where and how natural infrastructure alternatives might be utilized to protect our coastal resources. This project is distinctive in its scale and location and would provide valuable new coastal resilience data.

Additionally, The Bay Foundation is leading or partnering on several concurrent projects in Los Angeles County and the Santa Monica Bay area that would benefit from the resulting data of the Conservancy's project. Two specific examples include our natural foredune accretion project in Santa Monica, and helping LA City restore the remnant dune system adjacent to the LAX Airport. We support and commend the scientific evaluation of soft-scape alternative coastal protection projects, and recognize the need for projects which would add significantly to the dearth of existing data evaluations.

These pilot projects will help fill a management deficiency by providing coastal managers and decision makers needed information to incorporate living shoreline solutions in coastal resilience planning efforts.

Thank you for your time and please do not hesitate to contact me with any questions,

Karina Johnston
Director of Watershed Programs
The Bay Foundation
kjohnston@santamonicabay.org



February 22, 2016

Cat Kuhlman, Executive Director
Ocean Protection Council
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

Subject: Support for the Cardiff Beach Living Shoreline Project, State Coastal Conservancy, Proposition 1 Grant Proposal

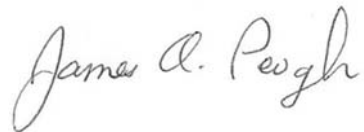
Dear Ms. Kuhlman:

San Diego Audubon Society wishes to express its strong support for granting Proposition 1 funding to the State Coastal Conservancy for the planning and construction of the Cardiff Beach Living Shoreline Project.

We especially appreciate the broad range of benefits and the unique synergy of the project. It will increase beach and dune habitat for shorebirds and the food web they depend on; will protect threatened coastal infrastructure instead of costly and environmentally damaging shoreline hardscape; will take advantage of the dune vegetation's ability to stabilize the shoreline protection, will make beneficial use of sediments from the San Elijo Lagoon Restoration Project for the dune and beach restoration; and will eliminate the need for damaging ocean disposal of the sediments dredged from the lagoon and the energy intensive barging and related environmental and financial costs.

Each of these benefits are important to us. The combination of all these benefits into such a coherent package makes this project particularly worthy of support. The San Diego Audubon Society urges that Proposition 1 funds be provided for the planning and construction of this State Coastal Conservancy project and hopes that the project will provide an example for future multiple benefit enhancement and restoration projects.

Respectfully,



James A. Peugh
Conservation Chair
San Diego Audubon Society



February 22, 2016

Deborah Halberstadt, Executive Director
Ocean Protection Council
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

RE: Letter of Support for Cardiff Beach Living Shoreline Project – State Coastal Conservancy - Proposition 1 Grant Proposal

Dear Ms. Halberstadt:

California State Parks wishes to express support for the State Coastal Conservancy Proposition 1 funding proposal for the planning and construction of the Cardiff Beach Living Shoreline Project. This proposal provides a model for coastal resiliency by developing an ecosystem-based feature to restore a protective dune and protect Coast Highway 101 from storm surge and sea level rise.

For more than 30 years, Coast Highway 101 has regularly experienced coastal flooding due to the combination of high tides and storm surges. As sea level rise increases due to climate change, Coast Highway 101 will experience more frequent flooding and road closures that will impact commercial, residential and emergency transportation, and access to Cardiff and San Elijo State Beaches. This section of Highway 101 is vulnerable to future sea level rise and storms due to narrow beach widths, high levels of erosion and low or “at” grade roadway elevation.

Coastal dune systems are important habitat associations. This proposed project will re-establish and support threatened rare dune plants and will enhance habitat for the Western snowy plover and other shorebirds. This multi-benefit project provides protection while maximizing ecological function along the shoreline.

California State Parks and the City of Encinitas are joint agencies with overlapping responsibilities in this section of the coastline and are working cooperatively to prepare for the future effects of sea level rise and protection of infrastructure and resources.

California State Parks is strongly committed to this funding opportunity and looks forward to working with the City of Encinitas and the San Elijo Lagoon Conservancy on the implementation of this unique and forward thinking “Living Shoreline Project.”

Appendix D: Letters of Support

If you have any questions or need further information please contact my office at (916) 653-6725 or Darren Smith at (619) 952-3895.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jay Chamberlin". The signature is stylized with a large initial "J" and a long horizontal stroke.

Jay Chamberlin, Chief
Natural Resources Division

cc: Robin Greene, District Superintendent, San Diego Coast District
Tara Ursell, Environmental Scientist
Darren Smith, District Services Manager
Reading File