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California State Senate

SENATOR
FRAN PAVLEY

TWENTY-SEVENTH SENATE DISTRICT



COMMITTEES
NATURAL RESOURCES & WATER
CHAIR
ENERGY, UTILITIES &
COMMUNICATIONS
ENVIRONMENTAL QUALITY
HEALTH
TRANSPORTATION & HOUSING

May 13, 2013

Doug Bosco, Chair
State Coastal Conservancy
1330 Broadway, 13th Floor
Oakland, CA 94612-2530

Subject: Coastal storm model for Southern California - SUPPORT

Dear Chairman Bosco:

Having represented both Assembly and, now, Senate districts in Southern California having large stretches of coastal land for over 10 years, I write in support of State Coastal Conservancy funding to develop a coastal storm model to support coastal hazard and sea level rise vulnerability assessments in the Southern California area.

A recurring theme in recent reports on climate adaptation is that planning must occur at local and regional scales. Many South Coast governments and communities have already started climate change-related planning efforts, and have identified the need for better region-specific tools. Further development of a coastal storm model (CoSMoS) is critical.

I understand that Conservancy staff is working with the USGS to develop a coastal storm model specifically geared for Southern California, including various sea-level rise scenarios, physical factors, shoreline change, and the latest global climate models.

I support this important effort, and authorization of funding by the Conservancy Board at its June 20 meeting.

Sincerely,

P

California State Senator
District 27

CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000
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March 25, 2013

Doug Bosco
Chair, State Coastal Conservancy
1330 Broadway, Floor 13
Oakland, CA 94612-2530

Subject: Support to develop a coastal storm model for Southern California

Dear Chairman Bosco:

The California Coastal Commission strongly urges State Coastal Conservancy funding to develop a coastal storm model to support coastal hazard and sea level rise vulnerability assessments in the Southern California area.

Southern California is a vast and populous region that supports much of the State's critical infrastructure, as well as numerous national and state parks, tourism-generating beaches, and heavily-urbanized population centers.

A recurring theme in recent reports on climate adaptation is that planning must occur at local and regional scales. Many South Coast governments and communities have already started climate change-related planning efforts, and have identified the need for better region-specific tools. Specifically, further development of a coastal storm model (CoSMoS) is a high priority.

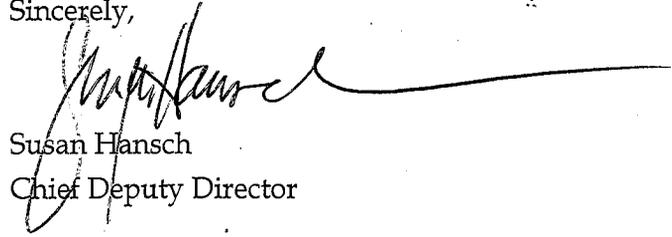
Model development will be led by Dr. Patrick Barnard at USGS and will take into account various sea-level rise scenarios, physical factors (e.g., tides, wind, waves, fluvial discharge), shoreline change, fluvial input, and the latest global climate models. Model conditions (e.g., waves, wind, atmospheric pressure) and inputs (global climate models) will be specifically selected for and downscaled to the Southern California region. The USC Sea Grant Program will bring their expertise to help ensure the model meets user needs and effectively supports policy and planning decisions.

The Coastal Commission is eager to have these modeling results to support the update of Local Coastal Programs (LCPs) in the South Coast region. LCPs are a key mechanism for implementing adaptation strategies in the coastal zone. The CoSMoS model results will help local governments and Coastal Commission staff understand vulnerability to sea level rise and coastal hazards, and will inform the development of policies, land use designations, ordinances and other strategies to reduce impacts from sea level rise through the LCP.

Exhibit 4: Project Letters

We look forward to having this critical information available to local governments, the Commission, and the public, and urge the Coastal Conservancy's full support.

Sincerely,

A handwritten signature in cursive script, appearing to read "Susan Hansch", followed by a long horizontal flourish line extending to the right.

Susan Hansch
Chief Deputy Director

Tijuana River National Estuarine Research Reserve (TRNERR)

"A Wetland of International Importance" *International Ramsar Convention, 2005*



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March 25, 2013

Doug Bosco
Chair, State Coastal Conservancy
1330 Broadway, Floor 13
Oakland, CA 94612-2530

Subject: Support to develop a coastal storm model for Southern California

Dear Chairman Bosco:

The Tijuana River National Estuarine Research Reserve (TRNERR) strongly urges State Coastal Conservancy funding to develop a coastal storm model to support coastal hazard and sea level rise vulnerability assessments in the Southern California area.

Southern California is a vast and populous region that supports much of the State's critical infrastructure, as well as numerous national and state parks, tourism-generating beaches, and heavily-urbanized population centers. A recurring theme in recent reports on climate adaptation is that planning must occur at local and regional scales. Many South Coast governments and communities have already started climate change-related planning efforts, and have identified that better region-specific tools are needed. Coastal managers articulated this need at the "*Beyond Bathtub: Modeling and Responding to Sea Level Rise and Shoreline Change*" workshop held in December 2012 by TRNERR, USC Sea Grant, and the CA Ocean Protection Council.

Further development of a coastal storm model (CoSMoS) is a high priority. Model development will be led by Dr. Patrick Barnard at USGS and will take into account various sea-level rise scenarios, physical factors (e.g., tides, wind, waves, fluvial discharge), shoreline change, fluvial input, and the latest global climate models. Model conditions (e.g., waves, wind, atmospheric pressure) and inputs (global climate models) will be specifically selected for and downscaled to the Southern California region. The USC Sea Grant Program will bring their expertise to help ensure the model meets user needs and effectively supports policy and planning decisions.

TRNERR is anxious to have this model to help inform the *Climate Understanding and Resilience in the River Valley* (CURRV) project, as we work to produce a climate change vulnerability assessment and adaptation strategy for the Tijuana River Valley, which encompasses the Tijuana Estuary, one of the last intact coastal wetlands in southern California. The primary focus of this project will be to identify the impacts associated with a changing climate, specifically flooding and inundation from sea level rise and changing watershed inputs caused by shifting precipitation patterns, and from this, develop corresponding adaptation approaches. This effort is supported by a grant from NOAA's Coastal and Ocean Climate Applications (COCA) Program, and is one of two focal areas across the National Estuarine Research Reserve System. The development of a coastal storm model for Southern California would help ensure that CURRV's final adaptation strategy is grounded in the best available region-specific science and TRNERR's Coastal Training Program can offer in-kind support to leverage the effort.

We look forward to having this critical information, and urge the Coastal Conservancy's full support.



Sincerely,

A handwritten signature in black ink that reads "Kristen Goodrich".

Kristen Goodrich, Coastal Training Program Coordinator
email: kgoodrich@trnerr.org

May 6, 2013

Doug Bosco
Chair, State Coastal Conservancy
1330 Broadway, Floor 13
Oakland, CA 94612-2530

Subject: Support to develop a coastal storm model for Southern California

Dear Chairman Bosco:

I am writing to express our support of State Coastal Conservancy funding to develop a coastal storm model to support coastal hazard and sea level rise vulnerability assessments in the Southern California area.

The Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC) is dedicated to fostering greater coordination and cooperation at the local and regional levels by bringing together leadership from governmental organizations, academia, business, non-governmental organizations, and the public to address impacts related to climate change. Our goal is to enhance collaboration on climate mitigation and adaptation in the Los Angeles region. We are currently undertaking an adaptation planning effort on the issue of sea level rise and the further development of a coastal storm model (CoSMoS) is integral to our work.

The development of the model will be led by Dr. Patrick Barnard at the United States Geological Survey. Model conditions and inputs will take into account various sea-level rise scenarios, physical factors, shoreline change, fluvial input, and the latest global climate models, specifically selected for and downscaled to the Southern California region. The USC Sea Grant Program will bring their expertise to help ensure the model meets user needs and effectively supports policy and planning decisions.

The LARC is anxious to use this model as we undertake our region-wide collaborative adaptation planning effort around sea level rise. We look forward to having this critical information, and urge the Coastal Conservancy's full support.

Very Truly Yours,



Krista Kline
Director, The Los Angeles Regional Collaborative for Climate Action and Sustainability

Exhibit 4: Project Letters



BOARD of GOVERNORS

March 25, 2013

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Jennifer Adams-Brooks

Doug Bosco
Chair, State Coastal Conservancy
1330 Broadway, Floor 13
Oakland, CA 94612-2530

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Barbara A. Sawrey, Ph.D.

Nancy Spector

Horacio Valeiras

PRESIDENT & CEO

Bob Kelly

Subject: Support to develop a coastal storm model for Southern California

Dear Chairman Bosco:

The San Diego Foundation strongly encourages State Coastal Conservancy funding to develop a coastal storm model to support coastal hazard and sea level rise vulnerability assessments in the Southern California area. Model development will be led by Dr. Patrick Barnard at USGS and will take into account various sea-level rise scenarios, physical factors (e.g., tides, wind, waves, fluvial discharge), shoreline change, fluvial input, and the latest global climate models. Model conditions (e.g., waves, wind, atmospheric pressure) and inputs (global climate models) will be specifically selected for and downscaled to the Southern California region. The USC Sea Grant Program will bring their expertise to help ensure the model meets user needs and effectively supports policy and planning decisions.

Southern California is a vast and populous region that supports much of the State's critical infrastructure, as well as numerous national and state parks, tourism-generating beaches, and heavily-urbanized population centers. A recurring theme in recent reports on climate adaptation is that planning must occur at local and regional scales.

Many San Diego region governments and communities, as well as others throughout Southern California, are developing climate change-related planning efforts, and have identified the need for better region-specific, and more detailed tools. In our region, State Coastal Conservancy funding for this model would provide greater analysis to help implement the *Sea Level Rise Adaptation Strategy for San Diego Bay*, a first of its kind, multi-year collaboration among the Port of San Diego, its five member cities and the Airport Authority and supported by a grant from The San Diego Foundation.

The San Diego Foundation, since the launch of our Climate Initiative in 2006, has had a strong commitment to help advance regional efforts to proactively plan for climate change and reduce local climate risks. Since 2006, we have invested approximately \$1 million in local climate research, including sea level rise mapping and assessments of local vulnerability for the San Diego region. We believe further development of a coastal storm model (CoSMoS) will be a well-timed analysis to advance our region's local efforts to prepare for climate change. It would also provide greater clarity from the State for local agencies about the type of scenarios localities should be planning for.

We look forward to having this critical information, and urge the Coastal Conservancy's full support. Sincerely,

Emily Young, PhD
Senior Director, Environment Analysis & Strategy



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May 13, 2013

Doug Bosco
Chair, State Coastal Conservancy
1330 Broadway, Floor 13
Oakland, CA 94612-2530

Subject: Support to Develop a Coastal Storm Model for Southern California

Dear Chairman Bosco,

The Port of San Diego staff supports the State Coastal Conservancy funding development of an independent coastal storm model for coastal hazard and climate change vulnerability assessment efforts in the Southern California coastal area, such as CoSMoS developed by the USGS.

Southern California is a vast and populous region that supports much of the State's critical infrastructure, as well as numerous national and state parks, tourism-generating beaches, maritime cargo and commerce, and heavily-urbanized population centers. Many agencies in the San Diego region are working collaboratively to plan for a changing climate, including rising sea levels, to increase the resiliency of our region and protect our valuable assets. The Port is also preparing a climate plan which includes climate change adaptation, the first plan of its kind for a California port.

A recurring theme in recent reports on climate adaptation is that planning must occur at local and regional scales. Many South Coast agencies and organizations have begun climate change-related planning efforts, and have identified the need for better region-specific tools. Specifically, more coordinated sea level rise assessments would help clarify and communicate an otherwise varied approach and understanding. Having a consistent tool for analysis would remove some of these barriers to progress in increasing regional resilience. Therefore, further development of a coastal storm model (CoSMoS) is a high priority.

We understand model development will be led by Dr. Patrick Barnard at USGS and will take into account various coastal dynamics and the latest climate change predictions. The USC Sea Grant Program will help ensure the model meets user needs and effectively supports policy and planning decisions.

The Port of San Diego staff looks forward to reviewing more detailed modeling results as we move forward with climate planning efforts.

We encourage the Coastal Conservancy's full support of this valuable tool for our region.

Sincerely,

A handwritten signature in black ink that reads "Jason H. Giffen".

Jason H. Giffen
Director, Environmental and Land Use Management

DM#580403
cc: Jerine Rosato, Cody Hooven



Heal the Bay

1444 9th Street
Santa Monica CA 90401

ph 310 451 1550
fax 310 496 1902

info@healthebay.org
www.healthebay.org

April 30, 2013

Doug Bosco, Chair
State Coastal Conservancy
1330 Broadway, Floor 13
Oakland, CA 94612-2530

RE: Support to develop a coastal storm model for Southern California

Dear Chairman Bosco:

On behalf of Heal the Bay, a non-profit environmental organization with over 15,000 members dedicated to making Santa Monica Bay and southern California coastal waters and watersheds safe and healthy for people and local ecosystems, we respectfully submit our support for State Coastal Conservancy funding towards the development of a coastal storm model to support coastal hazard and sea level rise vulnerability assessments in the Southern California area. Adaptation and preparation for the effects of climate change, especially shoreline changes and sea level rise, is imperative as sea level rise will continue to impact coastal areas and communities. Developing assessments to identify and adapt to the impacts of climate change and related coastal hazards are integral to ensuring the health and economic well-being of coastal communities.

The United States Geological Survey's Coastal Vulnerability Index rates most of the Southern California coast as "highly vulnerable" to coastal change due to sea level rise and climate change. Approximately 85% of California's residents live or work along bay or coastal areas and are facing sea level rise without the means to adjust to expected impacts.¹ As higher sea levels, increased storm surges, and inland flooding coincide, projected inundation is likely to impact water supply canals, wastewater treatment plants, power plants, and other critical infrastructure throughout California.² Heal the Bay plays an active role in supporting and encouraging local jurisdictions and state agencies to develop coastal development policies that employ adaptation strategies to sea level rise that protect public safety and the environment.

South Coast governments and communities have already started climate change-related planning efforts, such as Adapt-LA, a local stakeholders group we are a part of developing a vulnerability assessment for the City of Los Angeles. Many of these groups have identified the need for better region-specific tools, such as development of a coastal storm model (CoSMoS). We understand that the proposed storm model will take into account various sea-level rise scenarios, physical factors, shoreline change, fluvial input, and the latest global climate models, which are all important aspects for vulnerability assessments and adaptation planning efforts.

We urge the Coastal Conservancy's full support of this project and look forward to having these critical modeling results to support and inform our coastal climate change adaptation work. Please contact us if you have any questions regarding our comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Sarah Abramson Sikich".

Sarah Abramson Sikich
Coastal Resources Director

A handwritten signature in black ink, appearing to read "Dana Roeber Murray".

Dana Roeber Murray
Marine & Coastal Scientist

¹ "Considering sea level rise as a coastal hazard," Proceedings of Coastal Zone '07 Portland, OR, (July 22-26, 2007); California Climate Adaptation Strategy at p. 3.

² California Climate Change Center, "The Impacts of Sea-Level Rise on the California Coast," (May 2009), available at www.pacinst.org/reports/sea_level_rise/report.pdf; CA Climate Adaptation Strategy, p. 65, 68.



March 21, 2013

Mr. Doug Bosco
Chair, State Coastal Conservancy
1330 Broadway, Floor 13
Oakland, CA 94612-2530

Subject: Support to develop a coastal storm model for Southern California

Dear Chairman Bosco:

The California Landscape Conservation Cooperative (CA LCC) strongly supports State Coastal Conservancy funding to develop a coastal storm model to support coastal hazard and sea level rise vulnerability assessments in the Southern California area.

The CA LCC is dedicated to promoting integrated science and natural resource management to address the impacts of climate change on ecosystems. Our main goal is to provide the necessary science to conservation practitioners so they can make better decisions on-the-ground. A key part of this is having better science available for climate adaptation planning.

A recurring theme in recent reports on climate adaptation is that planning must occur at local and regional scales. Many South Coast governments and communities have already started climate change-related planning efforts, and have identified the need for better region-specific tools. Specifically, further development of a coastal storm model (CoSMoS) is a high priority. The CA LCC is currently supporting sea level rise modeling in Southern California and development of a storm model would complement this work.

Model development will be led by Dr. Patrick Barnard at USGS and will take into account various sea-level rise scenarios, physical factors (e.g., tides, wind, waves, fluvial discharge), shoreline change, fluvial input, and the latest global climate models. Model conditions (e.g., waves, wind, atmospheric pressure) and inputs (global climate models) will be specifically selected for and downscaled to the Southern California region. The USC Sea Grant Program will bring their expertise to help ensure the model meets user needs and effectively supports policy and planning decisions.

The CA LCC is especially interested in how this work will be relevant to resource management decisions. Thus, we would be interested in collaborating and assisting with that management connection and with helping distribute the outcomes. We have a large partnership that could benefit from this work and we have a communication network in place to help widely distribute information and results.

We look forward to receiving this critical information and urge the Coastal Conservancy's full support.

Sincerely,

A handwritten signature in purple ink, appearing to read "Rebecca Fris". The signature is fluid and cursive, with a prominent initial "R" and "F".

Rebecca Fris, Science Coordinator
California Landscape Conservation Cooperative
Californialcc.org