

CITY OF LOS ANGELES

CALIFORNIA



ANTONIO R. VILLARAIGOSA

MAYOR

BOARD OF

PUBLIC WORKS

COMMISSIONERS

CYNTHIA M. RUIZ
PRESIDENT

VALERIE LYNNE SHAW
VICE-PRESIDENT

PAULA A. DANIELS
PRESIDENT PRO TEMPORE

ERNESTO CARDENAS

JULIE B. GUTMAN

DEPARTMENT OF

PUBLIC WORKS

BUREAU OF SANITATION

ENRIQUE C. ZALDIVAR
INTERIM DIRECTOR

VAROUJ S. ABKIAN
TRACI J. MINAMIDE
ASSISTANT DIRECTORS

ENVIRONMENTAL MONITORING DIVISION
12000 VISTA DEL MAR, SUITE 504
PLAYA DEL REY, CA 90293
TEL: (310) 648-5231
FAX: (310) 648-5731

November 7, 2007

Ms Stephanie Peck
Manager, Policy and Administration
Southern California Coastal Ocean Observing System (SCCOOS)
Scripps Institution of Oceanography
University of California, San Diego
9500 Gilman Drive, MC 0213
La Jolla, CA 92093-0213

Dear Ms Peck:

**LETTER OF SUPPORT FOR THE SOUTHERN CALIFORNIA COASTAL OCEAN OBSERVING SYSTEM
(SCCOOS AND THE REGIONAL COASTAL OCEAN OBSERVING SYSTEM)**

The City of Los Angeles, Bureau of Sanitation's Environmental Monitoring Division (EMD) is supportive of the Southern California Coastal Ocean Observing System efforts to develop the Regional Coastal Ocean Observing System (RCOOS) for Southern California. SCCOOS provides badly needed coastal and ocean observations and generate extremely useful products for environmental managers, regulators, and nongovernmental agencies (e.g., environmental groups). The City conducts extensive monitoring in the coastal ocean of Southern California, primarily in Santa Monica Bay. A significant portion of this effort involves tracking the Hyperion Treatment Plant's effluent plume as it is discharged from the 5-Mile Outfall pipe into Santa Monica Bay and estimating bacterial concentrations at ankle depth in the surfzone due to the potential for pathogens to adversely impact public health. The effluent plume has the potential for traveling considerable distances and depositing organic particles, metals, and organic pollutants into the sediment within the Bay. Storm drains are the major source of bacteria and other pollutants to these waters, and they mostly discharge into the surfzone.

Southern California beaches and near-shore waters are world famous, and nearly 80 million people engage in water contact recreational activities at Los Angeles and Orange County beaches every year. This is not only an important component of the Southern California life style, but also an important economic engine for the region. Unfortunately, it has been estimated that between 627,800 and 1,479,200 "excess" cases of gastrointestinal illness occur at these beaches each year with estimated healthcare costs of \$21 million to \$414 million annually; thus, ensuring good, safe water quality along our coast is a high priority. In addition, the deposition of pollutants and their subsequent accumulation have adverse impacts on the benthic macrofaunal and demersal fish and invertebrate communities. Some of the seafood, e.g., white croakers, have been issued fish advisory notices and may not be safe for consumption.



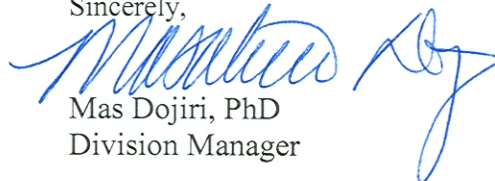
Knowledge of circulation patterns in the coastal region is meager, especially from a regional perspective. A better understanding of circulation in the shallow and near-shore regions could be extremely valuable because it holds the potential to forecast the fate of surfzone and near-shore pollutants, which would increase our ability to protect public health and the environment.

The work conducted by SCCOOS is important because it is focused on improving our understanding and potential for modeling dispersion within a few hundred meters of the shoreline, which is where most water-contact recreation occurs, as well as the near-shore waters. This information will be useful in studying stormwater dispersion and fate, as well as discharges from wastewater treatment plants. I believe this will greatly benefit monitoring efforts aimed at protecting public health and the environment.

The City of Los Angeles' Hyperion Treatment Plant recently diverted the flow of its wastewater from a pipe with an outfall that is five miles from the shoreline to one that is only one mile from the shoreline in order to inspect the 5-mile pipe. The diversion lasted approximately three days and about 800 million gallons of secondary-treated effluent was discharged through the 1-mile pipe. EMD in conjunction with other researchers conducted an extensive monitoring effort during this diversion. Our monitoring effort greatly benefited from surface current information provided through the Southern California Coastal Ocean Observing System (SCCOOS). The real-time current information provided by SCCOOS enabled us to adaptively modify our sampling grid to better track the discharge plume and to predict the dispersion of the surface plume by the use of a trajectory model developed by SCCOOS researchers using high frequency radar data. If the winds had blown onshore, EMD would have utilized the surfzone model developed by Scripps Institution of Oceanography through SCCOOS to predict the dispersion of the effluent in the surfzone. We believe improved understanding of dispersion in the surfzone may similarly benefit our monitoring efforts in the future, as well as those of the Orange County Sanitation Districts, which is planning a similar outfall inspection and 1-mile outfall diversion in the near future.

In summary, the City of Los Angeles shares an interest in better understanding the dynamics of water transport in the surfzone and near-shore waters, which may increase our understanding of the fate of flow from storm drains and other sources into the surfzone as well as the flow from offshore sources into the surfzone. Because of this, the City believes it is likely to directly benefit from the ocean observing activities proposed by SCCOOS; the City heartily endorses the proposal and recommends it be funded.

Sincerely,



Mas Dojiri, PhD
Division Manager



COUNTY OF ORANGE HEALTH CARE AGENCY

PUBLIC HEALTH SERVICES
ENVIRONMENTAL HEALTH

JULIETTE A. POULSON, RN, MN
DIRECTOR

DAVID M. SOULELES, MPH
DEPUTY AGENCY DIRECTOR

RICHARD SANCHEZ, REHS, MPH
DIRECTOR
ENVIRONMENTAL HEALTH

MAILING ADDRESS:
1241 E. DYER ROAD
SUITE 120
SANTA ANA, CA 92705-5811

TELEPHONE: (714) 433-6000
FAX: (714) 754-1732
E-MAIL: ehealth@ochca.com

*Excellence
Integrity
Service*

November 26, 2007

Dr. Eric Terrill
COO
Southern California Coastal Ocean Observing System (SCCOOS)
Scripps Institution of Oceanography
University Of California, San Diego
9500 Gilman Drive #0213
La Jolla, CA 92093

Dear Eric;

As a representative of a Southern California public health agency and beach water quality manager, I would like to take this opportunity to voice our continued support for the Southern California Coastal Ocean Observing System (www.sccoos.org). SCCOOS has evolved into a comprehensive and accurate observing system providing partners, stakeholders and the public with an extensive array of useful ocean observation data and products, much of it real time.

We continue to support SCCOOS by providing shoreline bacteriological water quality monitoring data to SCCOOS on a regular basis. The user friendly web site provides consumers with recent and historical monitoring site data, GIS reference maps, and compliance analysis with state marine bathing water standards. Site navigation is extremely easy and intuitive. In addition to water quality data, SCCOOS has coordinated the development of a high frequency radar current monitoring system. This real time surface current monitoring system has allowed the San Diego County Environmental Health Agency to predict when contaminated water from the Tijuana River will impact the southern beaches of San Diego County. They are able to preemptively prevent swimmers from being exposed to contaminated ocean waters. This system can also be used to predict where sewage spills or urban runoff will impact when they reach ocean receiving waters. The use of predictive models coupled with existing and enhanced water quality monitoring methodologies and real or near real time ocean observing systems will allow better prediction of potential public health risks associated with the recreational use of California's marine waters. It is important that SCCOOS continues to be an integral part of the solution to these challenges. We strongly support your efforts and look forward to continued and future collaborations with SCCOOS.

If you have any questions please feel free to call me at (714) 433-6015.

Very truly yours;


Larry Honeybourne

Environmental Health Engineering Specialist
County of Orange Health Care Agency
Environmental Health



County of San Diego

GARY W. ERBECK
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
(619) 338-2222 FAX (619) 338-2088
1 (800) 253-9933
www.sdcdeh.org

JACK MILLER
ASSISTANT DIRECTOR

November 26, 2007

Eric Terrill, PhD.
Southern California Coastal Ocean Observing System
Scripps Institution of Oceanography
University of California, San Diego
9500 Gilman Drive #0213
La Jolla, CA 92093

Dear Dr. Terrill:

SUPPORT FOR INTEGRATED OCEAN OBSERVING SYSTEMS TO PROVIDE REAL TIME COASTAL WATER QUALITY DATA

In San Diego County, the Department of Environmental Health (DEH) is the local agency responsible for the protection of public health in the ocean and bay recreational waters. When monitoring indicates bacterial levels above state standards or when a reported sewage spill may impact water quality, DEH provides notification to protect public health.

Since 2003, DEH has used real time data provided by the Southern California Coastal Ocean Observing System (SCCOOS) as a tool to assist in making more accurate and timely decisions for issuing water contact warnings to protect public health. Specifically, the Tijuana River plume trajectory model, a product of the SCCOOS real time monitoring data, has provided greater confidence for decisions to issue water contact closures for south county beaches.

DEH understands that the SCCOOS is funded by grants from the National Oceanic and Atmospheric Administration and the State of California, and encourages continued support for SCCOOS to maintain, operate, and improve the regional observing system. If you have any questions concerning this letter, please contact Mark McPherson, Chief of the Land and Water Quality Division at (858) 495-5572.

Sincerely,

GARY W. ERBECK, Director
Department of Environmental Health
County of San Diego,

GWE/CC:cc

cc: Mark McPherson, Chief, Land and Water Division
Clay Clifton, EHS II

George Robertson
20112 Riverside Drive
Santa Ana Heights, CA 92707

Dr. Eric Terrill
Southern California Coastal Ocean Observing System
Scripps Institution of Oceanography
University of California, San Diego
9500 Gilman Drive #0213
La Jolla, CA 92093

November 29, 2007

Subject: SCCOOS NOAA Proposal Letter of Support

The purpose of this letter is to provide you with a letter of support for your funding proposal to the National Oceanographic and Atmospheric Administration (NOAA) for operational funding for the Southern California Coastal Ocean Observing System (SCCOOS).

As a Senior Scientist for the Orange County Sanitation District (OCSD) and as a sitting member of the Southern California Coastal Water Research Project (SCCWRP) Commission's Technical Advisory Group (CTAG), the California Coastal Conservancy's Coastal Ocean Currents Monitoring Program (COCMP) External Review Panel, and SCCOOS's Senior Advisory Committee I see immediate payoffs to the public in each of the four proposal areas.

My responsibilities at OCSD include managing a large ocean monitoring and research program. This program is designed to look at potential effects to beneficial uses of the coastal ocean from the discharge of treated wastewater. To identify and discriminate between impacts, there is a need to understand both the fate and transport of pollutants discharged from OCSD's submerged ocean outfall and the interaction between OCSD's discharge and other sources of pollutants to the coastal zone such as rivers, storm drains, and ocean dumping. Additionally, there is a need for information on how large-scale spatial and long-term temporal patterns might affect our evaluation of these impacts. OCSD and other dischargers cannot conduct such data collection and analysis efforts alone, but, in concert and partnership with SCCOOS, we can begin to leverage and enhance the evaluations of coastal environmental data.

Local dischargers have mandated, long-term monitoring programs; OCSD's goes back to the early 1970's. In order to effectively overlay regional monitoring on-top of these established programs, there needs to be a commitment to fund, develop, and maintain an observational coastal ocean observation system. Individual dischargers do not have

the resources or, more importantly, the mandate to develop such infrastructure. While dischargers can provide their environmental data to SCCOOS, there is a strong need to have a regional entity – SCCOOS in Southern California – develop and operate an operational system.

Basic to the understanding of the effects of coastal discharges is the routine monitoring of discharge plumes, both subsurface and surface, to document their development over time and, ultimately, where they transport pollutants, such as bacteria and nutrients. SCCOOS's harmful algal bloom (HAB) proposal element is right in line with current management concerns for southern California. I am presently involved with the development of a new regional study to evaluate the relationship between nutrients and HABs. However, this study, Bight08 Water Quality, will not be maintained over time and it will not include plume tracking, a component that environmental managers will need to better understand in order to effectively deal with pollutant inputs to the Southern California Bight. SCCOOS's observational and modeling capabilities are essential for understanding, management, and policy decisions.

Another example of how the SCCOOS proposal is in-sync with local issues and needs is the development of a local climatology for near shore waters (within 20 km) using data from the Central Bight Water Quality Monitoring Program. This monitoring is a collaborative effort between four ocean dischargers that conduct quarterly water quality sampling along the central portion of the SCB, from Ventura to Newport Beach. The data is used individually by each discharger to evaluate the potential impacts to water quality from their respective discharges. However, while there has been an expressed interest to analyze the 10 years of data now available, there is a lack of resources, both in manpower, expertise, and complementary datasets, that SCCOOS could provide. Developing and, perhaps more importantly, maintaining such a climatological record would allow dischargers, regulators and the public to better understand the effects of larger-scale regional phenomenon, such as El Nino/La Nina and shifts in the Pacific Decadal Oscillation on water quality and biota.

In closing, I will reiterate my strong support for this proposal and for NOAA funding of an operational ocean observational system for southern California. If you have any questions, please do not hesitate to contact me by phone or E-mail. My work contact information is listed below.

Regards,



George L. Robertson

Tel: (714) 593-7468

E-mail: grobertson@ocsd.com



SOUTHERN CALIFORNIA COASTAL WATER RESEARCH PROJECT
A Public Agency for Environmental Research

November 29, 2007

Dr. Eric Terrill
Southern California Coastal Ocean Observing System (SCCOOS)
Scripps Institution of Oceanography
University of California, San Diego
9500 Gilman Drive #0213
La Jolla, CA 92093

Dear Dr. Terrill,

The Southern California Coastal Water Research Project (SCCWRP) wishes to indicate our support for the continued development and operation of the Southern California Coastal Ocean Observation System (SCCOOS).

The Southern California Coastal Water Research Project (SCCWRP) is a research institute focusing on the coastal ecosystems of southern California, from watersheds to the ocean. SCCWRP was formed in 1969 as a joint powers agency, and our mission is to provide a scientific foundation for the management decisions of our member agencies. In a similar capacity, SCCOOS is actively engaged in identifying needs of the water quality management community in southern California by obtaining and synthesizing coastal observations.

In particular, SCCOOS is developing a project to provide insight on the relationship between anthropogenic nutrient inputs and both impaired water quality and Harmful Algal Blooms (HABs). The capabilities of SCCOOS are well-suited to support this emerging water quality issue. Meanwhile, Bight '08 (a regional monitoring program that will include the majority of the water quality stakeholders in Southern California) directly complements this effort.

SCCWRP is in a unique position to assist your work by serving as a member of the SCCOOS Board of Governors, while providing a forum to represent the water quality management community in Southern California. As the lead organizer for the Bight '08 project, SCCWRP will continue to collaborate with SCCOOS to support coastal monitoring of water quality and facilitate communication on the needs of water quality managers.

We look forward to working with you in continued partnership.

Sincerely,

Stephen Weisberg, Ph.D.
Executive Director



California Regional Water Quality Control Board

Los Angeles Region



Linda S. Adams
Agency Secretary

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.waterboards.ca.gov/losangeles>

Arnold Schwarzenegger
Governor

November 28, 2007

Dr. Eric Terrill
Southern California Coastal Ocean Observing System (SCCOOS)
Scripps Institution of Oceanography
University of California, San Diego
9500 Gilman Drive, #0213
La Jolla, CA 92093

PROPOSAL TO THE NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION FOR IOOS FUNDING TO PROVIDE OPERATIONAL FUNDS FOR SCCOOS MONITORING SYSTEM

Eric
Dear Dr. Terrill:

I am writing to express my support for a grant proposal submitted for consideration for funding by the National Oceanographic and Atmospheric Administration. The proposal would provide operational funds for the SCCOOS monitoring system. The SCCOOS monitoring would place an emphasis on two areas: 1) monitoring for harmful algal blooms; and 2) tracking and modeling of discharge plumes, although it includes other very useful components.

The Los Angeles Regional Water Quality Control Board, the United States Environmental Protection Agency and many other interested stakeholders are concerned about the apparently increasing frequency and severity of harmful algal blooms in our coastal waters. In order to protect public health and assess ecological risks associated with such events, regulatory agencies such as mine need better tools to track the occurrence of bloom events. We also need to understand the mechanisms that trigger such events, particularly if blooms are caused or stimulated by anthropogenic inputs such as stormwater runoff or wastewater treatment plant discharges.

The SCCOOS proposal would include several monitoring elements designed to track harmful algal blooms and monitor for bloom forming conditions. This type of monitoring should greatly enhance our understanding of the factors that trigger blooms and document the spatial and temporal extent of blooms. This will greatly assist my agency and others as we implement our management plans to protect water quality and ensure that beneficial uses of the ocean are maintained.

California Environmental Protection Agency



Recycled Paper

Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

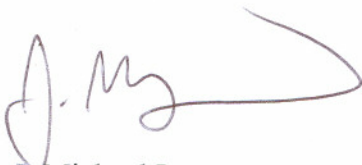
The Los Angeles Regional Board believes that the need to track and model the extent of discharge plumes is critical to our mission. Although we have a general understanding of the spatial distribution of the major wastewater plumes discharged into Santa Monica Bay (City of Los Angeles' Hyperion Treatment Plant) and on the Palos Verdes Shelf (Los Angeles County Sanitation Districts Joint Water Pollution Control Plant), we do not have the ability to track these plumes or predict their location on a day-to-day basis. We have much less information about the extent of stormwater plumes discharged by the major river systems in our region (e.g., San Gabriel River, Los Angeles River, Ballona Creek, Santa Clara/Ventura Rivers). We need a better understanding of plume dispersion from these sources so that we can assess and predict effects on water quality (including sediment quality impacts) and marine organisms.

The SCOOS proposal would include several monitoring elements designed to improve our understanding of the fate of discharge plumes within the Southern California Bight. This monitoring also will allow validation of how well current models describe and predict the movement of plumes away from their sources. This would improve the Los Angeles Regional Board's ability to assess likely impacts to water quality and beneficial uses (e.g., health risks associated with swimming).

We look forward to making use of remote sensing techniques to improve our understanding of coastal systems and integrating these methods with more traditional in-situ monitoring efforts. Since this is such an important issue to the Los Angeles Regional Board and many of our local stakeholders, I would encourage you to give strong consideration to approving this proposal for funding.

If you have any questions, please contact me at (213)-576-6718.

Sincerely,



J. Michael Lyons

Manager, Surface Water Ambient Monitoring Program, Los Angeles Region



established • 1923
**marine
exchange** of Southern California



a non profit organization

Dr. Eric Terrill

COO

Southern California Coastal Ocean Observing System (SCCOOS)
Scripps Institution of Oceanography University of California, San Diego
9500 Gilman Drive #0213 La Jolla, CA 92093

30 November, 2007

Dear Dr. Terrill:

As a participant in the Southern California Coastal Ocean Observing System (SCCOOS), I wanted to affirm your ongoing efforts in our behalf. With CDIP as the keystone, we have benefited greatly from your present products and your ongoing initiatives.

In the busy Port Complex of Los Angeles-Long Beach Harbor, CDIP has proven itself as a useful tool to many of the commercial waterways operators. Wave model predictions are helpful for trip planning of ferries engaged in the open ocean transits between the Harbor and Catalina Island, particularly during the winter months. Both Ports' pilot organizations board arriving ships outside the Harbor breakwater and must be aware of the expected height and direction of swell. The knowledge it provides of conditions at the breakwater entrances can also be of value to them. The San Pedro Vessel Traffic Service also uses it as a forecaster of conditions in the outer anchorages to guard against dragging and to promote general anchorage safety.

The recent introduction by SCCOOS of an high frequency radar at Point Fermin is providing a real time picture of surface currents in the San Pedro Bay, an additional positive element to the Coast Guard's search and rescue posture. Detracting from its utility is its presentation on a separate website. I look at your effort to combine this with CDIP as a start towards the ultimate goal of integration all oceanographic products into a comprehensive, one site portrayal of oceanographic and atmospheric conditions in a given area of interest. As you know, we sponsored a workshop in September toward that purpose, and we are looking forward to the results of that effort with Ms. Julie Thomas' presentation before our Harbor Safety Committee next week.

I wish you success in your efforts and look forward to the new product. Please let me know if we may help in this unique and exciting project.

Sincerely,

Captain R.B. McKenna
Deputy Executive Director
Marine Exchange of Southern California.

Post Office Box 1949 • San Pedro, Ca 90733-1949
Telephone 310-519-3134 • Fax 310-241-0300 • 24 Hour 310-832-6411
E-Mail: INFO@MXSOCAL.ORG Web Site: WWW.MXSOCAL.ORG

PROVIDING "VESSEL TRAFFIC & MARITIME INFORMATION SERVICE" FOR SOUTHERN CALIFORNIA



CITY OF ENCINITAS MARINE SAFETY DEPARTMENT

DATE: NOVEMBER 16, 2007
TO: DR. ERIC TERELL
FROM: LIFEGUARD LIEUTENANT, PAUL CHAPMAN
RE: SCCOOS

Here in the city of Encinitas we provide water safety for up to six miles of beaches with our primary beach area being three and a half miles. We make over three thousand ocean rescues/safety contacts and medical aids in the course of a year. Needless to say we are a busy beach. Because of the amount and type of operational demands we face, we are always monitoring our local weather/beach conditions as well as upcoming conditions that can have an effect on our operations/staffing etc.

SCCOOS has been quite helpful to us in regards to the above and we have found SCCOOS to be a reliable and helpful source of information. Additionally, we have been contacted by SCCOOS in the past for our input on how this type of data can be improved into the future. The amount and type of information this site provides is incredible. I am also quite sure that hardly any local surfers are aware that the surf forecast sites they utilize for their local surf information is a direct result of SCCOOS.

Michael Bateman contacted me to inquire if I would be interested in writing a letter about the importance of SCCOOS to us and I immediately agreed wholeheartedly. I believe the information they provide and our need for same makes this a resource that is well worth keeping around.

If you have any pertinent questions or comments regarding the above, please feel free to contact me via the information listed below.

Yours in lifesaving,

Lt. Paul Chapman
City of Encinitas Marine Safety Department
505 South Vulcan Avenue
Encinitas, CA, 92024



COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294
(323) 881-2401

P. MICHAEL FREEMAN
FIRE CHIEF
FORESTER & FIRE WARDEN
November 15, 2007

Dr. Eric Terrill
Chief Operating Officer
Southern California Coastal Ocean Observing System (SCCOOS)
Scripps Institution of Oceanography
University of California San Diego
9500 Gilman Drive #0213
La Jolla, CA 92093

via facsimile: (858) 534-7132

Dear Dr. Terrill,

As you know our agency is responsible for providing protection for lives, property and the environment along seventy-two miles of coastline in the County of Los Angeles, and over thirty miles of beach. The system of buoys and other data collection and analysis tools that SCCOOS provides has been invaluable to us over the years. Timely and accurate weather, surf and water temperature information are essential factors when making staffing decisions and anticipating ocean conditions such as big surf and rip currents.

SCCOOS is an important part of our award winning Coastal Monitoring Network (www.watchthewater.org). Data from SCCOOS is used to update our system with accurate nowcasting and forecasting of swell size and period. watchthewater.org functions as an "electronic tide board" and is viewed by the public over 600,000 times each month.

The SCCOOS team has shared software and engineering resources with our team and have helped make watchthewater.org such a success.

Thank you for your continued contribution to our public safety mission.

Very truly yours,

Scott Davey
Lifeguard Section Chief

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

AGOURA HILLS
ARTESIA
AZUSA
BALDWIN PARK
BELL
BELL GARDENS
BELLFLOWER
BRADBURY

CALABASAS
CARSON
CHERRITOS
CLAREMONT
COMMERCE
COVINA
CUDAHY

DIAMOND BAR
DUARTE
EL MONTE
GARDENA
GLENDALE
IRVINDALE
HAWAIIAN GARDENS
HAWTHORNE

HIDDEN HILLS
HUNTINGTON PARK
INDUSTRY
INGLEWOOD
IRVINDALE
LA CANADA-FLINTRIDGE
LA HABRA

LA MIRADA
LA PUENTE
LAKEWOOD
LANCASTER
LAWDALE
LOMITA
LYNWOOD

MALIBU
MAYWOOD
NORWALK
PALMDALE
PALOS VERDES ESTATES
PARAMOUNT
PICO RIVERA

POMONA
RANCHO PALOS VERDES
ROLLING HILLS
ROLLING HILLS ESTATES
ROSEMEAD
SAN DIMAS
SANTA CLARITA

SIGNAL HILL
SOUTH EL MONTE
SOUTH GATE
TEMPLE CITY
WALNUT
WEST HOLLYWOOD
WESTLAKE VILLAGE
WHITTIER

Jim Treydte
8 Calle Fortuna
Rancho Santa Margarita, CA 92688-2626

November 26, 2007

Dr. Eric Terrill, COO, SCCOOS
Scripps Institution of Oceanography
University of California San Diego
9500 Gilman Dr. #0213
La Jolla, CA 92093

Dear Dr. Terrill:

I am writing you as a Southern California recreational and competitive sailor who has been using the SCCOOS system regularly for the past year. I've found that in my primary sailing area around Dana Point that the broadcast NOAA forecasts are typically not very accurate. I believe this is due in large part to our location at the border of southernmost end of the Los Angeles zone and the northernmost end of the San Diego zone. And I must assume that the forecasts are biased towards the middle part of each zone. I've found through experience that the forecasts coming from the models at the SCCOOS web site allow me to view my specific area of interest and have been quite accurate and therefore much more helpful.

In addition to racing, my wife and I enjoy sailing across the channel to Catalina. Having a good forecast for the wind conditions allows us to plan our trips safely. SCCOOS gives us that tool and it has been very much appreciated.

During the racing season this year, I came to rely on the SCCOOS forecasts to help me plan what sail plan I would use during a race to enhance my chances for good results. The few times that SCCOOS was down, I felt like I was less prepared. However, I was pleasantly surprised during these times to have timely responses to my emails from the SCCOOS staff who explained that some capacity problems were being worked on with the servers. I greatly appreciated knowing that the service was not going away.

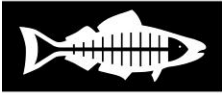
Having said that, I realize that funding for this project comes from government grants. I am hoping that I, and my fellow sailors (and sea lovers) who regularly use this valuable service will continue to be able to rely on it throughout the coming years.

My thanks go out to you and your staff for providing this service to the public.

Sincerely,



Jim Treydte



1444 9th Street
Santa Monica CA 90401

tel 310-451-1500
fax 310-496-1902

info@healthebay.org
www.healthebay.org

Heal the Bay®

November 12, 2007

Dr. Eric Terrill

Southern California Coastal Ocean Observing System (SCCOOS)

Scripps Institution of Oceanography University of California, San Diego

9500 Gilman Drive #0213

La Jolla, CA 92093

Re: Support for SCCOOS Regional Ocean Observing System Proposal

Heal the Bay, a non-profit organization with over 12,000 members dedicated to making southern California coastal waters and watersheds safe, healthy and clean, supports the proposal being submitted to NOAA by SCCOOS to develop the Regional Coastal Ocean Observing System (RCOOS) for Southern California as part of IOOS. Heal the Bay has supported SCCOOS since its inception to provide coastal and ocean observations and monitoring for the Southern California Bight. SCCOOS and Heal the Bay have collaborated in efforts to address monitoring of coastal water quality in an effort to improve real-time management of and decision making about our vital coastal resources.

SCCOOS has been developing a stakeholder-driven, end-to-end ocean observing system that serves local and regional needs for information and data critical to public health and water quality issues. Data services and products developed by SCCOOS are being used to track and monitor stormwater runoff events, sewage outfall plumes, harmful algal blooms and other similar water quality issues. These data are used to provide three-dimensional maps of water quality properties that are made readily available to the public through the SCCOOS web site in near real-time. SCCOOS ongoing operations aid in identifying the source of contamination and predicting the fate and transport of contaminants that impair the beneficial uses of coastal ocean waters. SCCOOS also provided valuable environmental data services to the important monitoring effort of the November 2006 Hyperion Discharge Diversion event by the City of Los Angeles and set the stage for the approach to rapid response by SCCOOS for our region.

Heal the Bay strongly supports SCCOOS's proposal to continue its development of the regional observing system for Southern California. The continuation and further development of SCCOOS important programs will provide important scientific information to the public and decision makers that will facilitate protection of southern California's marine and coastal resources.

Sincerely,

Mark Gold, D. Env.
President



November 15, 2007

Dr. Eric Terrill
Southern California Coastal Ocean Observing System (SCCOOS)
Scripps Institution of Oceanography
University of California, San Diego
9500 Gilman Drive #0213
La Jolla, CA 92093

Dear Dr. Terrill:

I am writing in support of the SCCOOS proposal for continued funding from NOAA. It is very clear that the entire IOOS system—the backbone and the regional programs—is a critically important addition to the nation's ocean infrastructure. In some areas, such as Southern California, the regional ocean observing system takes on special importance because of the intensity of societal pressures on the ocean, the multiplicity of uses, and economic and public health implications of those uses, and the complex oceanographic processes on a variety of spatial and temporal scales.

The Southern California Bight is surrounded by a population of more than 20 million people—more than the population of the entire State of New York. It is home to the Nation's two largest ports, through which enter more than one-third of all imports to the U.S. It receives more than 1.3 bgd of partially treated wastewater. It is a major recreational outlet for millions of people with some of the nation's, and the world's, most beautiful and popular beaches. It has the potential to be home to a significant offshore aquaculture industry, and the availability of critical oceanographic data will be important in determining whether, or not, this happens. It soon will become the next segment of the California coast for establishment of a series of Marine Protected Areas. The list goes on, and one thing is clear and that is that we need diverse and high quality oceanographic data to generate the kinds of information that are needed to manage this enormously valuable resource for maximum benefit to society while protecting the natural ecosystem.

The next phase in the evolution of SCCOOS, and indeed of all of the regional systems, will be to forge more and stronger partnerships with a diverse set of potential end-users of the data and to work with them to develop an array of informational products. These informational products must be tailored to meet the needs and opportunities of the end users and be delivered on schedules that are sensitive to their needs. SCCOOS is well positioned to grow its customer base and meet the need for tailored and timely products. We also need

to make the public more aware of the importance of SCCOOS and other components of IOOS so they will be supportive of the public investments that are needed to sustain this important network.

The Aquarium of the Pacific is the only large aquarium in all of Southern California with an attendance that now exceeds 1.4 million visitors per year, and that has grown in each of the past six years. We are very interested in strengthening our partnership with SCCOOS to make the public more aware of the power and the promise of ocean observing. We also are very interested in working with SCCOOS to convene groups of potential stakeholders to help shape the portfolio of informational products to serve a variety of end-user needs.

In summary, I, and the Aquarium of the Pacific, are very supportive of SCCOOS efforts and applaud the progress SCCOOS has made in building regional observing capabilities for Southern California. We urge NOAA to support SCCOOS's proposal to continue development of this valuable and needed regional observing system.

Sincerely,

A handwritten signature in black ink, appearing to read "Jerry R. Schubel".

Jerry R. Schubel
President and CEO



November 20, 2007

Dr. Eric Terrill
Scripps Institution of Oceanography
University of California San Diego
9500 Gilman Drive
La Jolla CA 92093

Dear Eric:

I am delighted to write this letter in support of your proposal, *Southern California Regional Coastal Ocean Observing System*. As the SIO Director of the *Center for Ocean Sciences Education Excellence-California* (COSEE-CA) and a Program Scientist at the Birch Aquarium at Scripps (BAS), I am pleased to use the resources and partnerships of both organizations to support education and outreach for your ocean observatory program and to promote the use of SCCOOS data and resources by science educators and students throughout California and the nation. COSEE-CA is part of a National Science Foundation network created to foster scientists' involvement in ocean science education (www.cosee.net). Now in its second 5 years funding cycle, COSEE CA includes a new initiative to reach middle school students with online ocean science educational resources. We are working with the San Diego Unified School District's Enhancing Science Education Through Technology program to pilot the educational modules and are delighted to have SCCOOS as a partner in that endeavor. The ability to engage students in using observatory data is one of the goals of our center and the participation of SCCOOS staff, including programmers is essential. This effort is in fact a natural extension of the long-term SCCOOS education and outreach effort conducted in collaboration with the Ocean Institute and will allow us to capitalize on those continuing efforts to reach students first locally and then throughout the nation.

The *Center for Ocean Sciences Education Excellence-California* and the Birch Aquarium at Scripps offer you their full and unqualified support for this innovative proposal. We look forward to hearing that your project has been funded.

Sincerely,

Cheryl Peach
SIO Director, COSEE-CA
Scripps Institution of Oceanography

Stephen Birch Aquarium-Museum
Scripps Institution of Oceanography
University of California, San Diego

Mailing Address
9500 Gilman Drive, Dept. 0207
La Jolla, CA 92093-0207

Location Address
2300 Expedition Way
La Jolla, CA 92093

Telephone (858) 534-FISH
Fax (858) 534-7114
Web Site aquarium.ucsd.edu



State Water Resources Control Board

Division of Water Quality

1001 I Street • Sacramento, California 95814 • (916) 341-5455
Mailing Address: P.O. Box 100 • Sacramento, California • 95812-0100
FAX (916) 341-5463 • <http://www.waterboards.ca.gov>



Arnold Schwarzenegger
Governor

Linda S. Adams
Secretary for
Environmental Protection

NOV 16 2007

Dr. Eric Terrill
Southern California Coastal Ocean Observing System
Scripps Institution of Oceanography
University of California, San Diego
9500 Gilman Drive #0213
La Jolla, CA 92093

Dear Dr. Terrill:

SOUTHERN CALIFORNIA COASTAL OCEAN OBSERVING SYSTEM, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION COMPETITIVE GRANTS

I am writing this letter to indicate our support for the continued development and operation of the Southern California Coastal Ocean Observing System (SCCOOS). I understand that federal support of the regional components of the Integrated Ocean Observing System (IOOS) is executed through competitive grants administered by the National Oceanic and Atmospheric Administration (NOAA), and, as a State agency member of the SCCOOS Senior Advisory Committee, I would like to take this opportunity to commend SCCOOS for its proactive engagement of the user community and the stakeholder process it has developed to identify regional priorities.

The mission of the State Water Resources Control Board (State Water Board) is to preserve, enhance, and restore the quality of all of California's water resources, including our coastal waters. We regulate point and nonpoint sources of pollution to protect all beneficial uses, including marine life and human health, in the ocean, bays, coastal estuaries, and beaches. I regard the data products and services provided by SCCOOS as invaluable in advancing the ocean information needed to fulfill this charge. Collectively, the National Pollutant Discharge Elimination System discharger community and public health agencies within Southern California make a significant investment in water quality monitoring (~\$23 million annually). SCCOOS has demonstrated an ability to deploy new technological capabilities that integrate these separate efforts and provide value-added data and products that allow rapid assessment of ocean conditions. SCCOOS's ability to rapidly provide ocean condition information during the 2006 Hyperion discharge diversion event by the City of Los Angeles is a clear indicator of the emerging capability that requires continued investment.

California Environmental Protection Agency



I see tremendous value in having an independent organization provide both continuous real-time ocean observing data products, and assembly and synthesis of local ocean data sets, to assist with our mission of protecting ocean and beach water quality. SCCOOS capabilities include real-time assessment of contamination flows, tracking transport of sewage outfalls and rivers, historical time series, online data access, and prediction for risk management. These capabilities provide water quality and public health managers with improved and reliable information and a greater understanding of coastal water pollution. Historical trend information provided by SCCOOS will prove valuable for assessments of costly infrastructure programs, Best Management Practices, and Total Maximum Daily Loads.

We recognize that through its outreach and user needs assessments, SCCOOS has been developing a regional ocean observing system that is responsive to local and regional needs – a goal that is consistent with NOAA and IOOS goals. SCCOOS has established effective collaborative partnerships with the State Water Board, the southern coastal Regional Water Quality Control Boards, and the Southern California Coastal Water Research Project. It is critical that SCCOOS continue the progress it has made in developing the coastal ocean observing system for the Southern California Bight. The State Water Board understands SCCOOS is funded by grants from NOAA and the State of California's Coastal Conservancy, and encourages continued support for SCCOOS to maintain, operate, and improve the regional observing system.

Should you have any questions, please feel free to contact me at (916) 341-5488 (dgregorio@waterboards.ca.gov).

Sincerely,



Dominic Gregorio, Chief
Ocean Unit
Division of Water Quality

November 28, 2007



To: Dr. Eric Terrill
Chief Operating Officer
Southern California Coastal Ocean Observing System
Scripps Institution of Oceanography University of California,
San Diego 9500 Gilman Drive #0213
La Jolla, CA 92093

RE: SCCOOS Proposal: Implementation of Regional Integrated Ocean
Observing Systems: The Southern California Coastal Ocean Observing
System (SCCOOS)

Dear Eric,

Ocean Science Applications (OSA) strongly endorses SCCOOS's proposal to support the Southern California Beach Water Quality Management Community. This task focusing on two subtasks: a) measuring and map the impacts of coastal discharges to support managers of beach and water quality, and b) initiating a coordinated Harmful Algal Blooms (HABs) program are consistent and supportive of major goals for the Ocean Protection Council's Five Year Strategic Plan and the proposed West Coast Governor's Ocean Action Plan (WCGOAP). Additionally, SCCOOS's proposal to maintain assessments to identify trends in the environment and relationships to ecosystem variability is an important contribution in the state's and WCGOAP approach to ecosystem based management goal.

Yesterday I participated in a panel discussion on this theme for the WCGOAP information needs assessment and the tasks your proposal outlines create an important foundation for the scale of observation necessary to implement regional EBM approaches and to fill significant monitoring gaps discussed in workshop.

OSA/ Coastal Conservancy: SCCOOS Letter
Page 2.

Additionally, the goal of creating HAB management products is also a WCGOAP goal. HABs are such an important issue that the Conservancy and the Resources Agency have arranged for two SCCOOS scientists to make presentations on their HAB work in Sacramento and Oakland in the coming weeks.

SCCOOS is a key state partner in developing regional monitoring capability in partnership with OSA. The State Coastal Conservancy's investment of more than \$21 million in state-wide HF radar infrastructure is, as described in the Ocean Protection Council's 2006 Five Year Strategic Plan, backbone technology for which the two California Regional Associations are anticipated to build an increasingly robust observing system by leveraging partnerships with NOAA as the national IOOS evolves. This partnership is further endorsed by the WCGOAP.

SCCOOS previous successes in delivering data products have been well received by regional clients and have set national standards for IOOS ocean health products. The observing and forecast products provided the City and County of Los Angeles during last year's Hyperion outfall diversion received national attention being used as an exemplary observing application in Dr. Andy Clark's published editorial in Sea Technology. The County's lead environmental management scientists have been very helpful to the Conservancy serving as COCMP reviewers and illustrate the potential of engaged clients communicating the value of ocean observing to our California congressional membership.

My colleagues and I commend the thoughtful effort that went into this proposal and we look forward to future collaboration with SCCOOS and NOAA. A successful proposal in this competition will be an important measure for future state investment in ocean observing.

Should you or our NOAA colleagues have any questions please don't hesitate in contacting me.

Sincerely,



Paul Siri
Executive Director
Ocean Science Applications
State Coastal Conservancy
707-338-2706
paulsiri@calosap.org



DEPARTMENT OF FISH AND GAME

<http://www.dfg.ca.gov>

1416 Ninth Street
Sacramento, CA 95814



Dr. Eric Terrill
Scripps Inst. of Oceanography
9500 Gilman Dr.
La Jolla, CA 92093-0219
858-822-3101

Dear Dr. Terrill

Nov. 16, 2007

This letter is in support of the SCCOOS proposal for sampling nearshore stations in the Southern California Bight.

The State of California's, Department of Fish and Game, Marine Region is responsible for the management of the nearshore marine environment. The nearshore is home to thousands of exploited invertebrates and fishes. In 2006, commercial fisheries landed more than 150,000 mtons of fishes and invertebrates in California. Top grossing fisheries were Dungeness crab, squid and spiny lobster. The nearshore live fish fishery is worth more than 2 million dollars having grown quickly since its inception in 1993. While many of the stocks in the nearshore are exploited by both commercial and recreational fisheries, little is known about the reproductive capacity of these stocks. CalCOFI with its ability to quantify larval production in space and time is an invaluable partner in managing state fisheries. CalCOFI tows are able to sample larval fishes from rocky substrates such as Cabezon and Sheephead, and Lingcod as well as from sandy substrate such as California halibut, English sole and Rex sole. Both Cabezon and Sheephead are nearshore species. Trends in production can be used to set fishing limits and quantify the impacts of no-fishing reserve areas. Larval production estimates in and around Marine Protected Areas are critical for assessing their effectiveness and utility. The expansion of CalCOFI sampling methodology into the nearshore combined with sampling of invertebrate larvae will greatly increase our ability to manage and conserved fished and protected resources.

The nearshore CalCOFI Oceanographic sampling program has already enhanced our knowledge of species that are managed by the state of California. In the past 2 years, funding from NOAA fisheries via SCCOOS to CalCOFI has conducted plankton tows in the nearshore capturing a suite of species previously not sampled. Cluster analyses of the larval fishes from these samples reveal that nearshore SCCOOS stations along with nearshore CalCOFI stations are substantially different than samples from coastal or offshore stations (R. Goericke pers. comm.). The differences in larval fishes does not appear to be related to physical or chemical parameters such as temperature, salinity or

Conserving California's Wildlife Since 1870

nitrate (R. Goericke pers. comm.). The nearshore stations are able to sample the high production zone as measured by the chlorophyll a concentrations. Therefore, continued funding of CalCOFI sampling in the nearshore is needed to better understand how physical forcing influences the dynamics of the nearshore.

Sincerely,

A handwritten signature in blue ink that reads "Laura Rogers-Bennett". The signature is written in a cursive, flowing style.

Laura Rogers-Bennett, Ph.D.
Senior Biologist Specialist Marine/Fisheries
CalCOFI Representative, California Department of Fish and Game

Tijuana River National Estuarine Research Reserve

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



301 Caspian Way
Imperial Beach, CA 91932
Office (619) 575 3613
Fax (619) 575 6913
jcrooks@tijuanaestuary.org



15 November 2007

Dr. Eric Terrill
Southern California Coastal Ocean Observing System (SCCOOS)
Scripps Institution of Oceanography
University of California, San Diego
9500 Gilman Drive #0213
La Jolla, CA 92093

Dear Dr. Terrill,

It is my pleasure to write you this letter of support for your proposal to the FY 2008 Implementation of Regional Integrated Ocean Observing Systems. The Southern California Coastal Ocean Observing System (SCCOOS) has proven to be a very valuable resource for wide audiences interested in the southern California's marine environment, including us here at NOAA's Tijuana River National Estuarine Research Reserve (TRNERR). We therefore strongly encourage continued support of your program.

The SCOOS effort is vital in helping us fulfill the TRNERR's mission in several different ways. One of our core programs at the TRNERR is monitoring of water quality, weather, and biotic indicators within the Tijuana River Estuary, conducted as part of the NERR System-Wide Monitoring Program (SWMP). Of course, one of our goals is better understand the role of the outflow of the often-polluted Tijuana River in the near-shore marine environment, and SCCOOS provides this critical larger context for the information we generate. More broadly, because SCCOOS offers a wealth of other data in an easily accessible format, I often rely on it when I need to provide researchers, decision-makers, and the general public with information on our coastal ocean. I especially appreciate the degree to which SCOOS has been responsive to the needs and ideas voiced by myself and others.

Again, I would like to strongly support the SCCOOS effort, and I look forward to continued partnership with this excellent program.

Sincerely,

Dr. Jeff Crooks



United States Department of the Interior

U. S. GEOLOGICAL SURVEY

Western Coastal and Marine Geology Team
400 Natural Bridges Drive
Santa Cruz, CA 95060
(831-427-4746); sjohnson@usgs.gov

November 19, 2007

Dr. Eric Terrill
COO, SCCOOS
Scripps Institute of Oceanography
University of California, San Diego
9500 Gilman Drive #0213
La Jolla, CA 92093

Dear Dr. Terrill,

I am writing to provide a letter of support for the proposal submitted by the Southern California Coastal Ocean Observing System (SCCOOS) for the NOAA funding opportunity: FY 2008 Implementation of Regional Integrated Ocean Observing System. I am the Chief Scientist for the U.S. Geological Survey's Western Coastal and Marine Geology Team (WCMG). Our Team works across the western U.S. with a focus on coastal geologic hazards (e.g., erosion, tsunamis, earthquakes), seafloor and habitat mapping, environmental quality and monitoring, natural resources, and communication/outreach on these topics. I also serve as a member of the SCCOOS Science Advisory Committee. Through these roles, I've become familiar with the history and development of SCCOOS. I've been continually impressed with the range of data products and services provided by SCCOOS and with their commitment to provide these to the public through an excellent, easy-to-use web portal.

WCMG hosts one large effort, the "California Urban Ocean Project" that focuses largely on sediment "source-to-sink" issues in southern California. Project members commonly rely on SCCOOS for real time and archived information on wave climate, surface currents, and other ocean conditions to provide the framework for understanding sediment and contaminant budgets and transport. As one example, we've recently been designing an important ecosystem restoration and sediment transport experiment ("fate and transport of fines") for the Tijuana Estuary and offshore area that has relevance for much of the urban California coast and involves numerous important stakeholders (e.g., California Coastal Conservancy, California State Parks, National Estuary Research Reserve, Southern California Wetlands Recovery Project, California Sediment Management Workgroup). SCCOOS "plume tracking" data offshore of the Tijuana River has been important to the design of this investigation and will be relied on as an important data set when the work begins. More generally, SCCOOS data are and will continue to be essential for monitoring both short- and long-term environmental change, a critical regional need during this dynamic period of changing climate and sea-level rise.

My understanding is that SCCOOS is funded entirely by grants from NOAA National Ocean Service and by the State of California. I think continued support of SCCOOS from these sources is very important to the regional marine science community. There is a clear continuing need to operate, maintain, and improve the regional observing system. I hope this letter will be helpful in obtaining continuing support for SCCOOS. Please do not hesitate to contact me directly if you need additional information.

Sincerely,

A handwritten signature in dark ink, reading "Samuel Y. Johnson". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Samuel Y. Johnson
Team Chief Scientist



United States Department of the Interior

MINERALS MANAGEMENT SERVICE

Pacific OCS Region
770 Paseo Camarillo
Camarillo, California 93010-6064

Sirs,

I write this letter in support of the Southern California Coastal Ocean Observing System (SCCOOS) program in anticipation that it will receive further funding and support from the National Oceanic and Atmospheric Administration. As discussed below, SCCOOS's continued presence in the marine community will be greatly beneficial to the Minerals Management Service's mission.

We regulate the Federal oil and gas operations on the outer continental shelf. In order for us to fulfill our mission to secure ocean energy in a safe and environmentally sound manner, we use information about the marine environment in making management decisions. Off the Pacific coast, offshore oil and gas operations are concentrated in the Southern California Bight. The SCCOOS provides a valued source of detailed information that improve our ability to perform our mission.

Historically, we have used a variety of data sources to determine marine conditions including current direction and speed, meteorological data, river plume locations, pollutant sources, and other marine information. Because most of these data sources are no longer available, we are pleased that SCCOOS can provide timely and accurate oceanographic information and data products that are useful to us. Some specific examples of how we will use SCCOOS data are:

- Response to oil spills – We use near-shore oceanic currents on a small scale as well as wind speeds and directions. SCCOOS data products such as CODAR, buoy information, and related links greatly enhances our ability to calculate oil spill trajectories.
- River plume and pollutant tracking – The use of SCCOOS data products such as CODAR and buoy information enable us to follow these episodic events.
- Sea surface temperature and chlorophyll from satellites – SCCOOS provides a continuous series of information on these critical oceanographic parameters.
- Emerging issues such as algal blooms – SCCOOS provides good data on the physical parameters leading to these events and their locations.
- Fish and fisheries – SCCOOS oceanographic data (current speed and direction) is used to help elucidate patterns of larval fish transport. The MMS will use this kind of information to understand the impact of offshore structures (such as oil platforms) on fish populations at a regional scale.
- Alternative Energy program – We are in the process of developing an alternative energy/alternative use program according to the requirements of the Energy Policy Act of 2005. SCCOOS (as well as the Pacific Ocean Observing System) data will be highly valuable since this program will be active over the entire west coast of the U.S.



It is evident that SCCOOS is providing a one-stop shopping venue through its website and publications. This is unprecedented and is highly beneficial in that our scientists can go to one location (the website) and either gather mission-critical data or gain access to web links that provide this information.

We understand that SCCOOS is funded by grants from NOAA and the State of California, and we strongly encourage continued support for SCCOOS to maintain, operate, and improve the regional observing system. It is important that SCCOOS retain the ability to generate information, maintain the ability to disseminate it to the public, academia, and government agencies. The information and data gathered during the grant period will assist us in our mission and further serve progress towards our mission goals. We strongly endorse SCCOOS's overall efforts and, in particular, this proposal.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. E. Panzer', with a long horizontal flourish extending to the right.

David E. Panzer
Oceanographer



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
SAN DIEGO BORDER LIAISON OFFICE
610 West Ash Street
Suite 905
San Diego, CA 92101

November 21, 2007

Eric J. Terrill, Ph.D.
Director, Coastal Observing Research and Development Center
Marine Physical Laboratory
Scripps Institution of Oceanography
La Jolla, CA 92093-0213

Dear Dr. Terrill:

EPA wishes to thank you for the work you performed for us using the Southern California Coastal Ocean Observing System (www.sccoos.org). The products you generated for us this year are currently being used to assess the impact of the effluent from the Mexican wastewater treatment plant on U.S. coastal waters. Such an assessment is required by the National Environmental Policy Act (NEPA) in order to document the environmental impacts resulting from the proposed Tijuana wastewater infrastructure projects that EPA hopes to help finance through the Border Environmental Infrastructure Fund.

EPA also anticipates using past and future SCCOOS data to determine if there is a correlation between ocean-current direction and beach water quality in Tijuana and Rosarito as a means of predicting water quality exceedances. Such forecasting would allow Mexican authorities to post beach warnings and thereby protect public without having to wait for results from weekly water quality sampling. We look forward to your help in this effort as well.

Thank you again for your assistance.

Sincerely,

A handwritten signature in purple ink, which appears to read "Doug Liden", is positioned below the word "Sincerely,".

Doug Liden
U.S.-Mexico Border Coordinator
Water Division, USEPA Region 9

Commander Amphibious Squadron One
METOC Officer
Unit 25096
FPO AP 96601-5800

02 November 2007

Subj: SCCOOS Letter of Support

To Whom It May Concern:

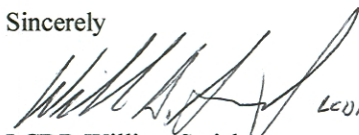
As lead meteorology and oceanography officer onboard Amphibious Squadron One staff I am writing to express my strong support for the SCCOOS program. I am responsible for tactical forecasting for Navy and Marine planners within the expeditionary strike group, and for the safety of navigation and personnel. Our expeditionary strike group consists of six naval warships and one marine expeditionary unit which is special operations capable. During recent training evolutions in Southern California I used the SCCOOS data extensively to support our military training. The SCCOOS insitu data allowed me to accurately assess environmental impacts on operations at scales and accuracy unattainable through computer modeling alone.

Military equipment and personnel are highly susceptible to small differences in assessed environmental conditions. Small temporal or spatial errors in parameters such as wave height, ocean currents or temperature mean the difference between mission success or failure and could put safety and lives of sailors and marines at risk. SCCOOS's existing ocean sensing systems, provide the fine scale data essential to fleet mission planning. SCCOOS web assessable sensor data presents near-real-time information vital for mission planning, tactical decision aid initialization, and condition analysis. This ocean sensor data enabled greater mission success rate while mitigating risk to the operators by tailoring training to the environment.

Furthering research and sensors in southern California ocean observing will enhance military mission planning. Adding sensors and improving upon data relay architectures will decrease risk to personnel and protect military resources.

SCCOOS's excellence brings together current observational data while implementing new sensing techniques. This continuing effort expands Navy METOC's access to insitu data on the finest scales. Consequently METOC planners in southern California provide tactical atmospheric and oceanographic data by leveraging SCCOOS's sensor techniques and support. Please feel free to contact me with any questions.

Sincerely


LCDR William Swick
COMPHIBRON ONE METOC Officer
swickw@cpr1.navy.mil