

Southern California Coastal Ocean Observing System (SCCOOS)

Executive Steering Committee Meeting

27 May 2009

Orange County Sanitation District

MINUTES

Committee Members Present:

Burt Jones, Chair, *University of Southern California*, Dan Rudnick, Co-Chair, *Scripps Institution of Oceanography*, Russ Davis, *Scripps Institution of Oceanography*, Jim McWilliams, *University of California, Los Angeles*, George Robertson, *Central Bight Water Quality Working Group*, Sheila Semans, *California Coastal Conservancy*, Libe Washburn, *University of California, Santa Barbara*

SCCOOS Staff:

Amanda Dillon, *Program Assistant*, Eric Terrill, *Technical Director*, Julie Thomas, *Executive Director*

1. Welcome and Introductions

2. History of SCCOOS

Jones provided an overview of SCCOOS and the Bylaws. As listed in the Bylaws, the SCCOOS objective is to provide accessible data to resource managers and to the public. The mandate of the ESC is to advise the Board of Governors on technical matters and strategic planning, and to provide leadership in developing collaborative proposals, including development of budgets and distribution of funds amongst participating principal investigators.

Terrill described the history of SCCOOS, the Regional Association (RA) structure, and governance.

3. Current Status of SCCOOS

Terrill gave an overview of the funding status of SCCOOS. The California Coastal Conservancy's Coastal Ocean Currents Monitoring Program (COCMP) funds have been frozen since 19 December 2009. SCCOOS receives funding from the National Oceanic and Atmospheric Administration (NOAA) through the Regional Coastal Ocean Observing System (RCOOS) and RA grants.

Terrill detailed a few of the observational activities supported by Integrated Ocean Observing System (IOOS) in 2008:

- Harmful algal blooms (HABs) shoreline and nutrient surveillance on the entire coast of Southern California,
- Continued operations of nearshore egg and larval surveys that complement offshore California Cooperative Oceanic Fisheries Investigations (CalCOFI) surveys,

- Development of nearshore climatologies based on dischargers and CalCOFI data to aid future development of climate relevant indices for ecosystem assessment for fisheries, Integrated Environmental Assessments (IEAs), and Marine Protected Areas (MPAs), and
- Continued operations and maintenance of the SCCOOS 1km resolution, real-time ocean nowcast/forecast system.

Semans provided an update on the funding status of the Coastal Conservancy and the state bond funded projects. The bond sale was successful, but the Conservancy is in the paperwork stage of the process and is weeks away from restarting projects such as COCMP and Bight 08.

There was a general discussion of additional funding sources:

- The State Water Control Board has funds from the Environmental Protection Agency (EPA) through the stimulus package for improving water quality. This could also be a possible source for COCMP (follow up with Dominic Gregorio).
- Association of California Water Agencies (ACWA) is another possible funding stream.
- Sonoma County Water Agency's General Manager Randy Poole has been a strong supporter of COCMP in the past and funded efforts in Bodega Bay.
- Progress has been made with the Office of Spill Prevention and Response (OSPR) to further consideration of funding COCMP; funding for COCMP may be included in the OSPR next budget year.

Semans recommended that SCCOOS partner institutions talk to their state and federal representatives and have their clients write letters of support. McWilliams will request a letter from the University of California, Los Angeles and Robertson will pursue a resolution or letter from the Board of Southern California Coastal Water Research Project (SCCWRP) and the Orange County Sanitation District.

Terrill explained that the President's budget is level for IOOS funding. Semans described how the State is working within the no earmark policy to gain support for the COCMP program. SCCOOS has to be strategic in approaching legislators and maintain an on-going presence so that they hear the message multiple times. The SCCOOS institutions and partners should coordinate their efforts and meet with local legislative staff. Jones suggested that SCCOOS talking points be distributed or posted online.

Thomas stated that SCCOOS has not received details on the upcoming one-year NOAA proposal that is due in the fall. The program is probably going to be flat funded or funded at \$1 million. Funds for the current year should come through in the early fall.

McWilliams requested more lead time and information on grant start and end dates.

Semans said that the State would like to have all invoices submitted for work completed up to 19 December 2009, so that the State knows how much to reimburse.

Jones concluded that SCCOOS will work on getting support letters together and continue to pursue other sources of funding.

Washburn asked how SCCOOS could contribute on once-through power plant cooling. Semans said it could be a source of on-going funds for ocean monitoring. Davis stated that there is an interest in how habitats are affected by outfalls and discharges. Robertson said there is the prospect of looking at the impacts of power plants and desalination plants.

Washburn suggested that SCCOOS develop a series of funding scenarios that project how SCCOOS organization and products would be affected by different funding levels from the State and NOAA.

There was further discussion of State funding levels and HF radar operations. McWilliams proposed that SCCOOS articulate an evolving vision for a better future that could be used to pitch the program to an expanded IOOS program office and the State. He said that the present primary crisis for SCCOOS is with HF radar operations because the program is facing termination. Semans said that the ultimate goal would be to have a dedicated source of funding for ocean observing systems. She asked the group to consider the critical base of operations needed to address issues of interest to the State, such as MPAs and once-through cooling. What is the vision for an ideal observing system, and what is an incremental way to reach those goals? It is important to be realistic about what SCCOOS requests.

Semans explained that there might be possibilities to work with the Ocean Protection Council (OPC) moving forward because they want to try to further integrate ocean observing. There might be an ocean-themed meeting related to management issues, but focused on ongoing monitoring, especially in relation to climate change. Terrill suggested that the ocean observing effort find ways to be more proactive with the State.

Thomas provided an update on the Strategic Advisory Committee (SAC) meeting in February and the SCCOOS focus groups. Jones stated that additional elements and new projects must fit into the focus group areas. SCCOOS must also demonstrate community involvement in the proposal and make the stakeholder participation very clear.

There was a discussion of the MPA process. Semans encouraged SCCOOS to find out what is needed for MPA monitoring and how to best address those requirements. McWilliams offered to follow up with the science advisors to show how SCCOOS products have influenced the MPA siting process. Davis said that it would be very helpful to demonstrate exactly how SCCOOS products and models, such as larval transport, have influenced the process.

Semans said that the State has approved \$12 million for MPA base-line monitoring (with \$4 million going to the South Coast study area), and that the Monitoring Enterprise is currently working on the North Coast regional baseline plan as well as the overall statewide monitoring plan. The State will send out a request for proposals for base-line monitoring with funds available early next year. Davis questioned if the funds will primarily be directed toward

biological monitoring. Rudnick stated that all indications are that SCCOOS will be able to assist with the monitoring process.

Semans recommended having SCCOOS representation at the MPA monitoring meetings to impact the discussion in the Northern and Central regions for Southern California. She suggested that the Joint SAC with CeNCOOS might have a subgroup focused on MPAs. There was support for statewide discussions and continued work with CeNCOOS. Thomas explained that the regions are currently collaborating on statewide initiatives, especially with the NOAA Regional Coastal Ocean Observing System (RCOOS) proposal.

Climate Change:

Davis gave an overview of the history of CalCOFI data and how it could be used to support climate change studies; he proposed that an ocean reanalysis of the last twenty years would be very useful. McWilliams said that a community-wide reanalysis project in California would be fundable and needs to be designed. There have been previous efforts aimed at fisheries that culminated in a white paper submitted to NOAA two years ago. Jones asked if SCCOOS should consider expanding its measurement base to include indicators that relate to the MPAs, such as ocean acidification and low-oxygen.

There was support for a historical reanalysis and inclusion of other regions, including expansion to Oregon and Washington. Washburn suggested that the project could provide a framework for other efforts and direction for future measurements. Thomas said from the funding perspective, considering NOAA's objectives, climate issues and sustained monitoring is very important. SCCOOS should have a strong climate-ecosystem focus in the proposal. The group discussed how glider data, CalCOFI, and modeling efforts can be used to establish historical time series and illustrate long-term climate variability.

There were questions regarding egg and larval data and how it is used by the fisheries for stock assessment. Rudnick suggested that SCCOOS meet with the Department of Fish and Game to determine their priorities and needs. Semans and Thomas will check on who the best contact might be.

For nearshore work, Guza and O'Reilly have been working on flooding models that provide local communities with forecast warnings.

Water Quality:

Jones described the recent work of the regional HABS group, and how data are integrated into the observing system. Terrill pointed out that they are operating on a shoestring budget and leveraging other efforts to fund the work. He asked if they are planning on an expansion in the future. Jones said that they could add offshore sampling to the glider and pier sampling.

Rudnick proposed that the group track the papers or articles that are published through SCCOOS. Terrill requested copies for internal use and operational updates. McWilliams would like to know about student papers as well.

The group discussed plume monitoring and tracking in regard to water quality and beach or fishing closures. HF radar particle tracking tools are useful, but might be more site-specific and pertain to directed studies. Terrill asked if SCCOOS should include a rapid response capability. Jones questioned if gliders can be used to replace water quality sampling. SCCOOS could take a target site and fly the glider for a year-long period to develop joint-glider modeling interchange for a one year model run. It was concluded that Orange County would be the most likely location as it fits in with current HABs efforts and a number of other areas. Guza and O'Reilly are developing an alongshore particle tracking tool. Robertson stated that this would be a useful product for discharges and water quality agencies. McWilliams requested publications on HB06.

Marine Operations:

Terrill provided an update on marine operations. On the west coast, the Coast Guard does not include HF radar surface currents in their operations manual, but SCCOOS will be conducting web training sessions with the Coast Guard and the Marine Exchange of Southern California. Terrill asked if flooding and wave heights due to storm conditions should be considered an issue for climate analysis or marine operations. It was decided that in the short-term flooding is associated with marine operations and in the long-term inundation relates to climate change. Thomas stated that inundation is one of the IOOS focus areas.

SCCOOS plans to keep what is already online with some improvements, and will hold web training workshops with the Coast Guard and Marine Exchange. Thomas gave an overview of new products, which include a customized website for Santa Barbara Channel based on Los Angeles-Long Beach template, as well as a website for Pt. Mugu Naval Air Systems (NAVAIR) for test operations.

Semans asked about the possibility of integrating the newly collected high-resolution bathymetry into SCCOOS products and analysis. There was also discussion about SCCOOS hosting processed data products. All raw data are currently being hosted at NGDC. Providing access to these large datasets is part of larger state interest in geo-spatial planning. Terrill explained that a lot of products online are for the rapid decision community, but it would be beneficial to have syntheses of data. Thomas emphasized the importance of associating data management costs with projects.

McWilliams proposed that SCCOOS start by listing popular existing products, and then make a list of new products for this proposal. Washburn asked if there any other data sets that should be included in SCCOOS. McWilliams suggested developing a list of data sets that the ESC could use to provide feedback and prioritize. Terrill stated that the marine operations groups already know what products they would like to include. SCCOOS could develop a climate-themed page to add more visibility to gliders and provide a better story on climate change.

Jones concluded the meeting by setting a deadline of 30 June 2009 for white papers, product lists, and a draft for the proposal.

ACTION ITEMS	STATUS
1.) Research funding sources	
• The State Water Control Board - Dominic Gregorio	
• Association of California Water Agencies	
• Sonoma County Water Agency - Randy Poole	
• Office of Spill Prevention and Response	
2.) Letters of support for SCCOOS	
• University of California, Los Angeles (McWilliams)	
• Board of Southern California Coastal Water Research Project and the Orange County Sanitation District (Robertson)	
3.) Develop SCCOOS talking points and distribute or post online	
4.) Research once-through power plant cooling and funding sources	
5.) Develop SCCOOS funding scenarios	
6.) Attend OPC ocean-themed meeting (TBC)	
7.) Follow up with MPA science advisors (McWilliams)	
8.) Pursue opportunities for state-funded MPA monitoring	
9.) Attend MPA monitoring meetings	
10.) Contact Department of Fish and Game (Semans & Thomas)	In progress
11.) Collect SCCOOS publications and articles	
12.) Distribute publications on HB06 to McWilliams (Thomas)	Complete
13.) Make bathymetry data archived at Cal State available through SCCOOS	
14.) Develop a list of data sets/products for ESC to prioritize	
15.) Develop a SCCOOS climate-themed page	

NOTE: Focus group leads to submit a draft of their section for the NOAA RCOOS proposal by 30 June 2009.