

**CSU**

**The California State University**

COUNCIL ON OCEAN AFFAIRS, SCIENCE AND TECHNOLOGY



# COAST

**Semi-Annual Report #2**

**Period of Performance: January 1 2008-June 30 2009**

**Date of Report: August 2009**

# About COAST

The California State University (CSU) Council on Ocean Affairs, Science and Technology (COAST) was established in 2008 in response to a need articulated by CSU faculty and administrators for coordination and focus of the marine and coastal related assets and expertise distributed throughout the CSU. This effort has been championed by the Chancellor's Office as well as the CSU Presidents. COAST's mission is to provide vision, leadership, and support throughout the CSU system for education, policy and research related to California's marine, estuarine, and coastal regions, and to promote the public dissemination of knowledge gained to foster stewardship and sustainable use of California's coastal resources. We envision that COAST will be a leader in coastal and marine-related research and education throughout California, and will promote environmental literacy leading to a significant increase in public awareness and stewardship of our coastal and marine resources.

COAST aims to represent the coastal and marine-related educational, research, and policy interests of the CSU. These interests include, but are not limited to, topics such as global climate change, responsible natural resource management strategies, ocean and coastal policies, and the use of new and emerging technologies. COAST includes faculty, staff, and administrators working together to address coastal and marine-related issues. Because coastal conditions are affected by both offshore processes and terrestrial inputs, COAST's membership is diverse and includes representatives from a variety of disciplines who study a wide range of environments and habitats from upper watersheds to the bottom of the ocean. COAST provides a platform to effectively communicate the expertise of the CSU to the government, private industry, and the public in all matters relating to the coast and ocean.

Individuals in the CSU with an interest in marine and coastal affairs are encouraged to actively participate in COAST.

## SIX MONTH HIGHLIGHTS

- COAST held its second annual CSU-wide meeting with representatives 21 of the 23 campuses and the Chancellor's Office (May 2009). A formal governance structure was adopted at the meeting.
- The Chancellor appointed an eight-member Presidents Council to provide oversight, review, and advocacy.
- COAST awarded Year 2 funding for assigned time to 14 faculty at 10 different campuses to develop and submit collaborative proposals for external funding through the COAST Collaborative Incentive Awards Program.
- The COAST Executive Committee drafted a six-year strategic plan and made it available to the COAST community for input.
- Over 230 CSU faculty and staff have joined the greater COAST community and over 130 of these individuals have established profiles on Fresca (<http://fresca.sfsu.edu/>).

# COAST Development

During the first year of operations, an Interim Working Group (IWG) was formed by 15 volunteer CSU faculty and administrators. The IWG was charged with the advancement COAST's Year One goals:

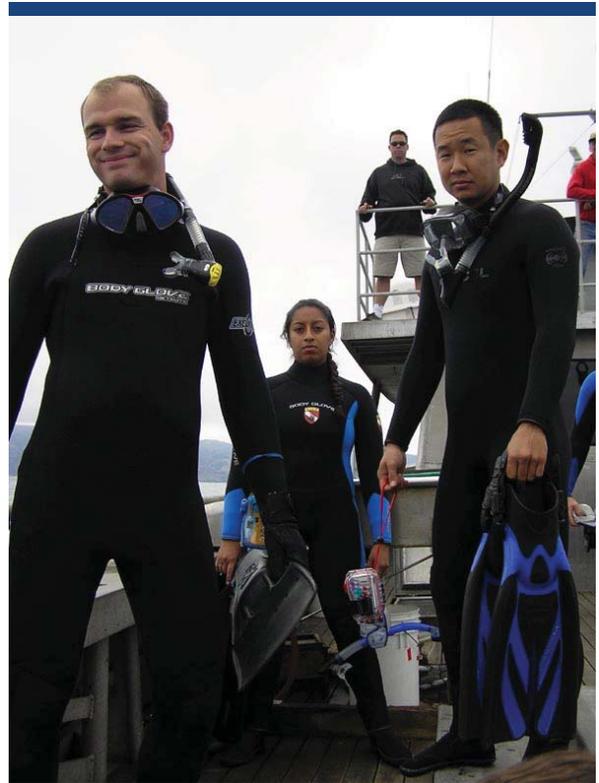
- Develop a pilot program to integrate CSU faculty across campuses and promote collaboration and advancement of marine science;
- Develop a dynamic, informational website that facilitates collaboration and scholarly activity among CSU faculty and provides external stakeholders with relevant program information;
- Develop a strategic plan that creates a path for COAST priorities and implementation over the next 5 years;
- Convene a second CSU system-wide meeting of COAST faculty and administrators to present the strategic plan and adopt a governance model;
- Convene a stakeholder meeting to promote the CSU "brand" identification as the preferred source of expertise.

Four of these five goals were successfully met:

- Overall COAST has succeeded in becoming a network for faculty and staff with coastal and marine interests. Several new collaborations have emerged that did not previously exist:
  - Dr. Ana Pitchon, a cultural anthropologist at CSU Dominguez Hills, has partnered with Dr. Steven Hackett, a marine economist at Humboldt State University, and they have already submitted proposals for to the California Ocean Protection Council and California Sea Grant. This fall they will be submitting a proposal for \$500,000 to the NOAA Saltonstall-Kennedy Grant Program and in early 2010 they will be submitting a fourth proposal to the Social and Behavioral Sciences Division of NSF in 2010.
  - Dr. Antje Lauer, a microbial ecologist at CSU Bakersfield, is collaborating with Dr. Sean Craig, and invertebrate zoologist at Humboldt State University, and Dr. Joshua Mackie, an evolutionary ecologist at San Jose State University, on proposals to NSF on invasive bryozoans (a type of marine animal that encrusts and fouls boats and piers along the California coast).
  - Two CSU Monterey Bay faculty, Dr. Marc Los Huertos and Dr. Aparna Sreenivasan, have recently been trained on remote use of analytical instrumentation at the CSU Long Beach Institute for Integrated Research in Materials, Environments, and Society (IIRMES). Drs. Los Huertos and Sreenivasan learned about IIRMES through COAST and are now taking advantage of resources at a different CSU campus to enhance their own research programs.

- The COAST network has also been successfully used to identify experts to respond to external requests for information. Specifically, Congressman Sam Farr’s office requested feedback regarding the Marine Mammal Research Program Act and opinion as to whether or not he should co-sponsor the bill.
- The COAST websites ([www.calstate.edu/coast](http://www.calstate.edu/coast)) continues to expand and be a valuable communication tool. In June 2009 alone there were 545 visits to the site from 226 unique visitors. A new Data & Products section highlighting the work of CSU researchers was added and the site is continually updated with news, funding and employment opportunities.

Please see the next two sub-sections, Planning and CSU-Wide Participation, for information on progress made on the Strategic Plan and the system-wide meeting. The fifth Year One goal of convening a stakeholder meeting was deferred to Year Two. Significant time and outreach is needed to plan a successful stakeholder meeting and the leadership felt more time was necessary. This meeting will now be held in the spring of 2010.



Divers, CSU Marine Biology Semester at Catalina Island Marine Science Center

## Planning

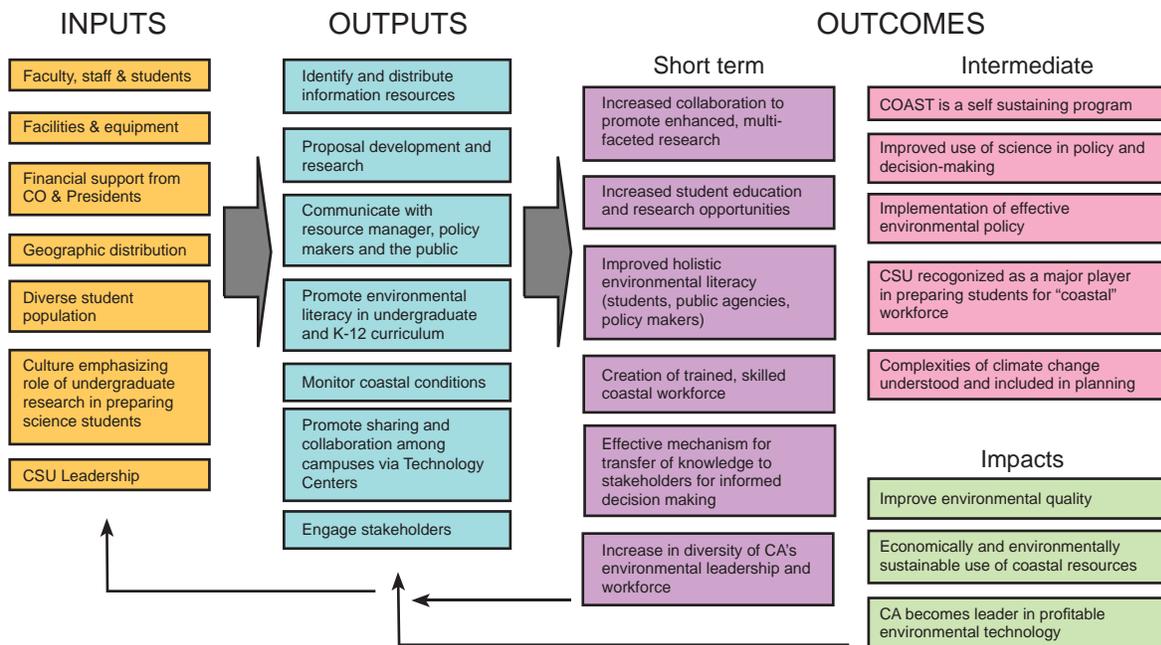
The COAST Executive Committee (EC) was elected from the IWG in July 2008 and oversees COAST's activities, guides development, and provides advocacy for the program with faculty, CSU Presidents and the Chancellor's Office. The EC meets at least monthly via teleconference and communicates electronically on a frequent basis.

The EC met at the SJSU campus in February to begin working on the COAST Strategic Plan. During the day-long meeting, the EC developed a logic model of COAST's resources, products, goals and ultimate impacts. The process of developing the model was based on based on the logic model process developed at the University of Wisconsin, Extension Program.

The logic model formed the basis of the Draft Six-Year Strategic Plan, which identifies programmatic priorities and mechanisms for implementation. The Draft Strategic Plan was made publicly available in early June 2009 via the COAST website and the COAST community was encouraged to review the plan and provide comments during a 60-day public comment period. Those comments will be reviewed by the COAST EC and incorporated into a final draft of the plan as appropriate. The final version of the COAST 2009-2015 Strategic Plan will be voted on for approval and adoption by the Council (see COAST Governance below) in the fall of 2009.

## COAST Logic Model

STATEMENT OF CONDITION/PROBLEM: Coastal environmental quality is impaired; lack of environmental literacy contributes to inability to make informed environmental decisions; poor environmental decisions threaten environmental quality and the economy; lack of knowledge of assets of the collective creates inefficiency for resource sharing and collaboration



## *CSU-Wide Participation*

The second annual COAST System-wide meeting was held May 1 2009 at the Chancellor's Office in Long Beach. Over 50 individuals attended, including representatives of 21 of the 23 campuses, the Chancellor's Office, Fresca, and other CSU affinity groups. Five breakout groups focused on several different priorities: strategic planning, governance, the development of an asset and resource inventory, the budget and resource allocation, and federal stimulus funding opportunities. An important aspect of this meeting was the official adoption of a shared governance structure (see below) that enables COAST to formally make decisions with representation from each campus, the faculty and administrators.

To date, over 230 CSU faculty and staff representing all of the 23 campuses have joined the greater COAST community and over 130 of these people have established profiles

on Fresca (<http://fresca.sfsu.edu/>). COAST encourages the use and development of Fresca by 1) referring individuals to it when helping establish new relationships and collaborations, and 2) requiring applicants for assigned time funding to establish profiles including contact information, a short biography, keywords and a list of publications. COAST is taking an active role in making recommendations for refining the functionality of Fresca to increase its effectiveness and utility as a tool for identifying individuals with similar areas of expertise and useful technological assets, and for linking potential collaborators together.



Jug Handle Beach, Mendocino County

## *Governance*

May 1 2009 meeting attendees voted to approve a COAST governance structure (Appendix A). In summary, any CSU campus that contributes financially to COAST operations is eligible to appoint two Faculty Representatives to the Council. Additionally, there are five administrators on the Council, with a maximum of one from any campus. Administrative Representatives are nominated by the Presidents and selected by vote of the EC. Each of the two marine consortia with the CSU, Moss Landing Marine Laboratories and Ocean Studies Institute, can also appoint one representative to the Council. Council members are responsible for communicating COAST related issues with faculty and administrators on their campus and vote on behalf of their campus constituents. Council members each serve three year terms, which will be staggered to allow for both turnover and continuity. The Council will be seated in August 2009. In the fall of 2009, two more seats will be added to the current five-member EC for a total of seven members. Two of the seven seats on the EC will be held by Administrative Representatives.

In June 2009, Chancellor Reed invited eight campus Presidents to serve on the COAST Presidents' Council, which provides oversight, review and general advocacy. Each of the Presidents accepted the Chancellor's invitation.

## **COAST Organization**

### **Executive Committee**

Dr. Kenneth Coale  
Moss Landing Marine Laboratories,  
San Jose State University

Dr. Newell (Toby) Garfield  
San Francisco State University

Dr. Rikk Kvitek  
CSU Monterey Bay

Dr. Andrew (Zed) Mason  
CSU Long Beach

Dr. Steven Murray  
CSU Fullerton

### **COAST Coordinator**

Dr. Krista Kamer  
San Francisco State University

### **Presidents' Council**

Dr. F. King Alexander  
CSU Long Beach

Dr. Robert Corrigan  
San Francisco State University

Dr. William Eisenhardt  
California Maritime Academy

Dr. Dianne Harrison  
CSU Monterey Bay

Dr. Albert Karnig  
CSU San Bernardino

Dr. Jolene Koester  
CSU Northridge

Dr. Rollin Richmond  
Humboldt State University

Dr. Steven Weber  
San Diego State University

### **Liaison to the Chancellor's Office**

Dr. Elizabeth Ambos,  
Assistant Vice Chancellor  
for Research Initiatives and Partnerships  
Chancellor's Office

### **COAST Staff**

Ms. Adria O'Dea  
San Francisco State University  
Website Development and Maintenance

Dr. Dale Robinson  
San Francisco State University  
Website Development

## Budget

COAST spent \$228,402 in Year 1 (July 1 2008-June 30 2009), leaving a residual positive balance of \$42,250. Travel and associated indirect costs were significantly less than anticipated. Travel by representatives from each campus to the May 1 2009 system-wide meeting at the Chancellor's Office totaled ~\$10,000, which was only half of the funds originally allocated for this activity. Additionally, the stakeholders' meeting, for which \$10,000 in travel was budgeted, was postponed until Year 2. Other COAST travel in Year 1 totaled only ~\$5,000, leaving ~\$30,000 in unused funds. \$18,000 was held in reserve at the Chancellor's Office

(Office of Research Initiatives and Partnerships) for Meeting Logistics and Public Affairs and Media costs, which were also significantly less than expected. The subtotal of these costs was approximately \$5500. The remaining \$12,500 was "swept" within the Chancellor's Office at fiscal year end. Personnel Costs at SFSU were also less originally anticipated. The Year 1 SFSU savings have been rolled over into Year 2 to support travel to a stakeholder meeting planned for June 2010 and to increase staffing to handle expanded needs identified by Dr. Kamer and the EC.

### Year 1 Budget at a Glance (July 1 2008-June 30 2009)

#### *Contributions*

Total from Individual Campuses	\$144,000
Chancellor's Office	\$140,000
<b>TOTAL</b>	<b>\$284,000</b>

#### *Expenditures*

Salaries and Benefits	\$129,635
Faculty Assigned Time	\$ 76,195
Travel	\$ 15,519
Meeting Logistics	\$ 3,000
Public Affairs and Media	\$ 2,503
Indirect Costs	\$ 1,552
<b>TOTAL</b>	<b>\$228,402</b>

#### *No Cost Extension*

Funds rolled over into Year 2	\$ 42,250
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## *Outreach to Policy Makers*

COAST has begun working with the CSU Advocacy and Institutional Relations (AIR) Office in Sacramento to hold a series of legislative briefings in 2010. These monthly briefings on a variety of coastal and marine issues important to legislators and their constituents, such as commercial fisheries, marine protected areas, water quality, coastal erosion, ocean energy, will provide an opportunity to educate policy makers on specific topics while repeating the message that the CSU is engaged in studying these issues and can provide expertise. Members of the Governor's Office and heads of state agencies and departments, such as the Department of Education, Natural Resources Agency, Coastal Conservancy and Cal EPA will be invited as well.



Cal Poly San Luis Obispo Center for Coastal Marine Sciences pier in Avila Beach

## *Collaborative Incentive Awards*

COAST established the Collaborative Incentive Award Program to stimulate the development of collaborative research and educational projects by providing assigned time to full-time lecturers and tenured/tenure-track faculty to develop and submit proposals that promote interdisciplinary, integrative, multi-campus research and/or educational initiatives to external funding agencies. Under the current guidelines, proposals on any fundable topic are considered eligible providing that they are collaborative projects that either advance or promulgate knowledge of California's marine, coastal and estuarine resources and the processes that affect them.

The first round of funding was awarded for Winter/Spring 2009. Four teams representing 11 faculty from 8 campuses received awards:

- Drs. Aiello (MLML-SJSU), Garza (CSUMB) and Robles (CSULA): Multi-scale geomorphologic controls over littoral communities in California

- Drs. Anderson, Aloisio and Gillespie (all CSUCI): Development of a statewide evaluation of the sustainability of seafood options available to consumers
- Drs. Hovel (SDSU) and Lowe (CSULB): Assessing spiny lobster movement behavior: implications for California's Marine Life Protection Act
- Drs. McPhee-Shaw (MLML-SJSU), Nielsen (SSU) and Goldthwait (HSU): Developing indices for primary production and harmful algal bloom potential from coastal ocean observing systems data networks

As a condition of receipt of the award, the awardees are required to submit full proposals to external funding agencies by January 2010. If successful, these proposals would bring in over \$2M in grant funding to the CSU in return for an initial investment of only ~\$76,000 in assigned time funding.



California spiny lobster, *Panulirus interruptus* - Photo courtesy of Ed Bierman via flickr creative commons

The second Request for Proposals (RFP) for this program was released in December 2008 and nine proposals representing 23 faculty from 11 different campuses were received. The significant increase in applications indicates increased interest in COAST among CSU faculty. The proposals spanned a variety of topics, including socioeconomic aspects of commercial fisheries, aquaculture, climate change, seismology, education and ocean energy. Unfortunately it was not able to fund all of the proposals, but six teams comprising 14 faculty at 10 different campuses will be receiving assigned time funding for Fall 2009:

- Drs. Lauer (CSUB), Craig (HSU) and Mackie (SJSU): Evolution and Invasion: speciation, ecological differentiation and microbial symbiosis in the exotic bryozoans *Bugula neritina* and *Watersipora subtorquata* in California
- Drs. Savage (CSUS) and Smith (MLML): Molecular Regulation of Domoic Acid Biosynthesis in *Pseudo-nitzschia* spp.
- Drs. Stillman (RTC-SFSU) and Tomanek (Cal Poly SLO): Transcriptome and proteome fingerprints of the potential for synergistic effects of ocean acidification and thermal stress along the California coast
- Drs. Ross (SDSU), Hentschel (SDSU) and Grant (CSUF): SEAWaRD: Stewardship, Education, and Advocacy through Wetlands Research Data
- Drs. Hackett (HSU) and Pitchon (CSUDH): Transitioning to High Value, Low Volume Fisheries in California
- Drs. Dillon (CSULB), Whitcraft (CSULB) and Komada (RTC-SFSU): Predicting the Effects of Sea Level Rise on Biological Communities and Carbon Flow in Coastal Salt Marshes

These awardees are required to submit full proposals to external funding agencies by September 2010. If successful, these proposals have the potential to bring in over \$3M in grant funding to the CSU in return for an initial investment of only ~\$79,000 in assigned time funding.



Los Peñasquitos Lagoon, San Diego County

## *Extramural Funding*

In February 2009 the CSU Federal Relations Office in Washington DC submitted a package of system-wide appropriations requests to Senator Diane Feinstein for FY 2010. One of the four requests included in the package was a COAST request for \$3M to establish six CSU Technology Centers (<http://www.calstate.edu/coast/technologycenters/>) focused on several key areas: Applied Organism Health, Climate Change Analysis, Environmental Quality, Geospatial Analysis, Marine and

Estuarine Policy, and Marine Ecosystem Dynamics. These cyber-enabled virtual Centers would link people, data and equipment together to create an unparalleled, robust statewide resource that maximizes the use of coastal research and education capabilities throughout the 23-campus CSU system. The Centers would also provide the State with sound scientific expertise and practical solutions to our most pressing environmental issues, while enhancing education within the CSU and training the next generation of college graduates with skills necessary to meet the coming challenges.

It was recently learned that the COAST FY 2010 Federal Request was not successful, however, it will be resubmitted for FY 2011 with modifications based on lessons learned to date. Additionally, other sources of funding for establishment of these and other Technology Centers will be sought.



Storm along Cayucos coast, San Luis Obispo County - Photo courtesy of Mike Baird via flickr creative commons

## *Marine and Coastal Equipment and Resource Inventory*

COAST has developed a work plan to guide efforts to create an inventory of marine and coastal assets. The scope of the project has increased from the initial goal of including capital equipment, vessels, facilities, analytical services, data sets and sample collections to also include human resources, such as technical and methodological expertise. The Water Resources and Policy Institute (WRPI) is also interested in developing an asset database and it is expected that there will be considerable overlap.

The anticipated benefits of these types of inventories to teaching and research within the CSU include:

- increased collaborative research and educational ventures within the CSU;
- enhanced efficiency of resource utilization within the CSU by reducing redundancy;
- improved technology transfer with the CSU; and
- increased competitiveness of grant proposals to funding agencies keen on promoting shared usage facilities and programs that promote cross-disciplinary research.



A small boat in the Romberg Tiburon Center's research fleet

## *Coordination with other CSU Affinity Groups*

COAST has made significant connections with the directors of the other CSU affinity groups (CSUPERB, WRPI, CEMHS and ARI).

- In January 2009, Dr. Kamer attended a workshop on homeland security hosted by the Council for Emergency Management and Homeland Security (CEMHS) at Fresno State University. Coastal issues that figure prominently in homeland security include port security, maritime operations and coastal hazards
- In March Dr. Kamer met with Dr. David Zoldoske, Executive Director of WRPI to discuss the evolution of WRPI and COAST to date, areas of overlap in research and education, resources, and common needs with regard to the CSU.
- The COAST leadership has worked closely with Dr. Susan Baxter, Executive Director of the CSU Program for Education and Research in Biotechnology (CSUPERB) and other CSUPERB leaders to explore potential collaborations for NSF funding. Neither a viable solicitation or project has been identified yet but the relationships that have been established will facilitate further communication and collaboration in the future.
- Drs. Baxter and Zoldoske and Mr. Joe Bezerra, Executive Director of the Agricultural Research Initiative (ARI) attended the COAST System-Wide meeting at the Chancellor's Office in May 2009. Each made a short presentation on their program and highlighted areas of overlap with COAST. They also participated in the afternoon breakout sessions at which their experience and perspective were invaluable.
- The possibility of an affinity group leadership retreat has been broached and may occur in 2010. The heads of the various affinity groups would spend a day together discussing their respective programs, challenges and successes. This would be an ideal opportunity to learn from each other and identify common interests and needs.



CSU Marine Biology Semester Students

# Outlook for the Next Six Months

Over the next six months COAST will:

- Review applications and reward assigned time funding for Spring 2010 through the COAST Collaborative Incentive Awards Program.
- Present the strategic plan to the Council for official approval and adoption.
- Hold elections for two additional EC seats.
- Begin to plan the third annual CSU-wide COAST meeting and a meeting with stakeholders to raise awareness about COAST and engage outside participation. Both will be held in Spring 2010.
- Initiate a series of legislative briefings with assembly members and staff in Sacramento through the CSU AIR Office.



University-National Oceanographic Laboratory System (UNOLS) R/V *Point Sur* housed at Moss Landing Marine Laboratories

APPENDIX A.  
COAST Governance Structure

**CSU Council on Ocean Affairs, Science and Technology (COAST)**  
**Governance Structure**  
**Adopted May 1 2009**  
**Long Beach, CA**

**Preamble**

The CSU Council on Ocean Affairs, Science and Technology (COAST) is established to promote multi-campus collaborative marine, coastal and estuarine research and education throughout the CSU. Regardless of Campus governance participation, all CSU faculty and staff are eligible for registration and participation as general members.

**Campus Participation**

Campuses are eligible to participate in the CSU COAST governance if they provide a financial contribution to the program through the annual tithing process. The COAST budget year commences July 1 of any given calendar year and ends June 30 of the following calendar year. If a campus tithes during this time period, it will be considered an “Active” campus and will be allowed to name campus representatives to the Council (see below).

**Council Makeup**

Each Active campus is eligible to have two faculty representatives on the Council. Administrators are not eligible to serve as general campus representatives. For the purposes of COAST an administrator is defined at the level of Dean or above. Campuses determine independently how their representatives are chosen. For example, a campus may hold its own election, call for volunteers or nominations, or their representatives can be appointed by the President or a designated authorized official. The Campus President or his/her designee will send the names of the official campus Council representatives to the Coordinator in a formal communication.

In addition to the above representatives, there will be five administrators on the Council, with a maximum of one from any campus. Administrative members will be nominated by the Presidents and selected by vote of the Executive Committee.

There are two marine consortia within the CSU. These consortia will each elect one Council member with the same terms of service as other Council members.

**Council Roles and Responsibilities**

Council members have official voting privileges on behalf of their campus. For example, they can vote on changes to the governance structure to adopt or modify a Strategic Plan and to elect Executive Committee members. They are responsible for communicating with campus faculty and appropriate campus administrators (e.g., Provost, Chief Research Officers, and Deans).

**Council Member Terms**

Upon appointment, each Council member will agree to serve for a three (3) year term. There are no term limits for the Council. Appointments shall be staggered to provide continuity of representation. If the member has to step down before their term is finished, the campus President or their designee will appoint an alternative to serve out the remainder of the term.

### Executive Committee

A seven-member Executive Committee (EC) will be elected from the Council by the Council. Each EC member will serve a five-year term. Terms will be staggered allowing for turnover of a portion of the EC each year. Nominations for open seats will be called for and voted upon annually. Two seats on the Executive Committee must be administrators.

### COAST Coordinator and Staff

The Coordinator assists the Council and EC, and directs the Staff. The Coordinator's role is to help in setting priorities and to implement the Council and EC's decisions. The Coordinator reports to the EC. Additional COAST staff will be determined by the EC.

### Chancellor's Office

The Chancellor's office will provide logistical support as well as additional input on establishing CSU-wide priorities.

### CSU Presidents

The Presidents will review the program annually and determine the tithing rates. The Presidents will also provide feedback and guidance to the EC. There should be adequate communication among the Presidents as well as with the Chancellor's Office, EC, and Coordinator.

