

# **Central and Northern California Ocean Observing System Framework for Decision Making**

Revised April 9, 2020

This document contains the basic components of system operations, structured priority setting, and project consideration processes, which will allow the Governing Council, in coordination with the Director, to make strategic decisions about future CeNCOOS endeavors and choices. It is meant to be used as a guidance tool, leaving the Council and Director with enough flexibility to adequately respond to changing circumstances.

## **1. About Statement**

CeNCOOS is one of 11 regional organizations under the U.S. Integrated Ocean Observing System, a national-regional partnership to information solutions for a healthy and prosperous California coastal ocean. CeNCOOS is a consortium of member organizations with a coordinating central program office and democratically elected governing council.

## **2. Governance**

The CeNCOOS governance sub-system plans, operates, continuously monitors, develops, and improves the CeNCOOS observing system. Governance tasks are managed by the small team at the host institution, directed by the Governing Council, and advised by working groups and advisory committees that donate time and expertise. CeNCOOS is an open membership organization with a Governing Council democratically elected by CeNCOOS leadership (Governing Council, Principle Investigators, and Joint Strategic Advisory Committee (JSAC) members). The CeNCOOS Governing Council, in concert with the Program Director, sets the priorities according to objective criteria, calling upon outside experts as necessary. The Governing Council represents a geographically widespread and diverse group of interests. The CeNCOOS Executive Committee, elected by the Governing Council, assists the Director in making decisions during situations requiring a quicker response than can be achieved with the entire council. Refer to the CeNCOOS Bylaws for more details on CeNCOOS governance.

## **3. Program Office Personnel**

CeNCOOS staff presently includes four primary positions: a Director, a Program Manager, a Product Developer, and a Data and Information Manager. The CeNCOOS Director is responsible for overall program operation and success. The CeNCOOS Director is accountable to the CeNCOOS Governing Council and performs under mutually agreed upon performance objectives. The Program Manager is responsible for observation systems management across the region and leads special projects management. The Program Manager, Product Developer, and Data and Information Manager are hired by the CeNCOOS Director and report directly to him/her with annual evaluations. Continued employment of all staff is dependent upon responsible execution of the duties incumbent to the position they hold.

#### **4. Priority Setting Overview**

CeNCOOS strives to meet the region's stakeholder priorities for ocean information. Stakeholders are defined to be data and information providers and users. Stakeholder input will be solicited via: Expressions of Interest (Appendix III), Governing Council and Joint Strategic Advisory Committee meetings, the CeNCOOS website and targeted visits, surveys and workshops. The final decision-making authority within CeNCOOS lies with the Governing Council. The Governing Council will provide general oversight and make major decisions such as those dealing with the organization's development, funding, and representation at the regional and national levels.

#### **5. Strategic Planning**

The CeNCOOS Strategic Plan serves to direct decision-making and communicate regional priorities. The Strategic Plan will be updated in concert with the re-evaluation of priorities every five years or as needed to address high-priority emerging issues. The plan is to be developed by the CeNCOOS Program Office and in coordination with our Governing Council and key state and regional partners. Development of the plan will include consultation with our scientific experts, policy makers and managers of marine spaces, and consultation with our members and the Joint Strategic Advisory Committee operated jointly with the Southern California Coastal Ocean Observing System (SCCOOS). The strategy illustrates how working together can enhance capability and capacity to meet a growing range of ocean information priorities.

#### **6. Vision Statement**

A healthy and prosperous California coastal ocean powered by information solutions.

#### **7. Mission Statement**

Translating data into action through the production, curation, and delivery of high-quality ocean information.

#### **8. Guiding Principles**

CeNCOOS will be guided by the following principles when setting priorities and making decisions regarding activities to engage in. It is anticipated that these principles will apply over the long-term, whereas priorities may change over shorter time scales.

- Wise management of estuaries, coasts and ocean in central and northern California, in the State of California, and leading by example nationally and internationally.
- Working as a collaborative of marine experts and stakeholders underpin sound decision-making and conservation of the marine environment;
- Integrated, high-quality data that is readily available for the benefit of society including for ocean habitat and resource stewardship and expanding the Blue Economy;
- Nimble public-private partnerships produce opportunities for advancement and shared commitment to stakeholder-driven, science-based, and regionally focused solutions;
- A vibrant partnership with SCCOOS to address California state-wide needs and priorities;

- Coordinated and transparent collection delivery of data across disciplines, adhering to the FAIR (findable, accessible, interoperable and reusable) data principles;
- Improving technology readiness and expand capacity to improve resilience to ocean change, including in the areas of biogeochemistry, biology and ecosystem variables;

## 9. CeNCOOS capabilities

Funding permitting, CeNCOOS is committed to maintaining the following core capabilities, with the recognition that these may change as stakeholder priorities evolve:

- **Fit-for-purpose data & information products:** Adding value to observations and other data to inform decision-making;
- ***In situ* observing:** High frequency radars, shore stations and moorings, autonomous vehicles, animal telemetry and ships, covering time and space domains;
- **Modeling past, present and future conditions:** Assimilating observations into models for tracking and ecosystem hindcasts, nowcasts, and forecasts;
- **Data integration and discovery:** Deliver data and information in a findable, accessible, interoperable and reusable way, including from other sources;
- **Scientific and technical expertise:** Knowledge to lead the identification and handling of ocean information needs.

CeNCOOS activities are listed in Table 1 with those in Category 1 being most essential, and those in Categories 2 and 3 being supporting activities.

**Table 1: CeNCOOS Activities and Core Capabilities**

<b>Overarching CeNCOOS Activities:</b> Responsive and adaptive strategic planning and coordination Governance, Management and Fundraising		
<b>Category 1</b>	<b>Category 2</b>	<b>Category 3</b>
System governance  Observing physical, biogeochemical, and biology and ecosystem variables  Data Management and Communications  Modeling  Engagement to identify of high-priority information products	Product Development and Dissemination  Outreach and network building  Proposal writing and fundraising	Research (investment in future, developing new approaches, models and sensors)  Education and capacity building

## 10. Assessing Gaps, Evolving Priorities, and Recapitalizing Sub-systems

CeNCOOS re-evaluates its priorities on a periodic basis dovetailing with the IOOS funding cycle. CeNCOOS maintains ocean observing asset inventories for the Central and Northern California region to assist with identifying gaps assessments for the IOOS program as well as other state, federal, local, and private activities. CeNCOOS conducts gaps analysis for build-out planning purposes, which includes three Tiers of prioritization (Tier 1 being the highest and 2 being new or emerging priorities).

## 11. Decision-Making Criteria

Core capabilities listed in Section 9 will be considered high priorities unless otherwise stated. The intent of these considerations is to give additional guidance to the Council when setting strategic programmatic priorities. The process of establishing the CeNCOOS priorities and investments, which may be refined annually based on funding availability, will take into consideration the following factors.

**Table 2: Criteria for Decision-Making**

Within the “primary” and “secondary” categories, sequence of criteria is based on a logical progression from broad to specific considerations, and is not intended to imply any prioritization or relative weighting of considerations.

Primary Criteria	<b>Responsiveness to Established CeNCOOS Priorities &amp; Drivers</b>	<ul style="list-style-type: none"><li>• How well does the proposed work advance the CeNCOOS Strategic Plan (Vision, Mission, Guiding Principles, Core Capabilities, Strategies, and Focus Areas)?</li><li>• Does this work directly serve stakeholders and end-users priorities in the CeNCOOS region?</li><li>• How does it address global, federal and national, West Coast regional, state, and Tribal drivers?</li></ul>
	<b>Reinforcement of Unique or Partner Role of CeNCOOS</b>	<ul style="list-style-type: none"><li>• Is CeNCOOS uniquely suited to undertaking this activity or project?</li><li>• To what extent are other organizations or consortia already addressing this need or question?</li><li>• Will sufficient expertise and capability be available?</li><li>• Does the activity promote a harmonized delivery approach for the CeNCOOS region?</li></ul>

		<ul style="list-style-type: none"> <li>Does CeNCOOS stand to be a regional/national leader in this area?</li> </ul>
	<b>Legacy and Sustainability Considerations</b>	<ul style="list-style-type: none"> <li>Does the proposed effort build on a long-term record of activity or observations?</li> <li>What will be the impact if we drop a currently funded activity?</li> <li>Does the project ensure CeNCOOS longevity? And is there a succession path by developing internal expertise?</li> <li>What is the projected lifetime of the activity or project? What is the potential to sustain it over time or transition it to another organization?</li> <li>If it's a short-term project—what are the benefits to the future of CeNCOOS? Will it have a lasting impact?</li> <li>Will the project help sustain the CeNCOOS workforce?</li> </ul>
	<b>Likelihood of success</b>	<ul style="list-style-type: none"> <li>Are the project objectives Specific, Measureable, Achievable, Responsive, and Time-Bound (SMART)?</li> <li>Is the project likely to meet its goals with the funding provided by CeNCOOS and other sources?</li> </ul>
<b>Secondary Criteria</b>	<b>Impact of Project</b>	<ul style="list-style-type: none"> <li>Is there an identified end user or a clear articulation of the end-to-end use of the proposed product or activity?</li> <li>What is the number or category of people impacted by the decisions the data, product, or activity inform?</li> <li>Are substantial biological resources impacted by the decisions the data, product, or activity inform?</li> <li>What economic impact might the data, product, or activity have?</li> <li>Does it fill an identified observing or information delivery gap?</li> <li>Will data delivery be real-time, delayed mode, or historical?</li> </ul>

	<b>Geographic considerations</b>	<ul style="list-style-type: none"> <li>• If the geographic scope extends beyond the CeNCOOS region, are neighbor IOOS RAs involved? Is joint-funding available?</li> <li>• If the geographic scope extends far beyond the CeNCOOS region (e.g. US West Coast or California Current System) is the CeNCOOS investment significant enough to make a meaningful contribution?</li> <li>• Are efforts to address global ocean priorities/issues sufficiently linked to other regions/observing systems?</li> <li>• Is the predicted impact local or regional in scale? Does it impact other regions?</li> <li>•</li> </ul>
	<b>Time Scale of Funding</b>	<ul style="list-style-type: none"> <li>• Is the time scale to spin up the activity or product reasonable?</li> <li>• Is the time scale adequate to make impact in this area?</li> </ul>
	<b>Cost and Amount of Funding</b>	<ul style="list-style-type: none"> <li>• Is the requested funding reasonable for the CeNCOOS grant from IOOS?</li> <li>• Is funding readily available elsewhere for this specific activity?</li> <li>• Is there potential to leverage existing funds or in kind contribution, including from other entities, or attract new future funds?</li> <li>• Are matching funds or partner funds provided?</li> <li>• Has the PI been able to attract other funding based on CeNCOOS funding or a CeNCOOS letter of support – and if so, how sustainable is the effort without base CeNCOOS funding?</li> </ul>

## 12. Gantt Chart

### Activity

IOOS Meeting and  
Congressional  
Visits

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

PI Progress Report Input Due												
IOOS Progress Reports Due												
JSAC Meeting												
GC Working Meeting (as needed)												
GC & Science and Impact Meeting^												
Descoping decisions*												
IOOSA Board Meeting												

^ Will be held in December or January, scheduling dependent.

\* Will depend on the receipt of final budgeting numbers from NOAA.

### 13. Program Review

The Governing Council, with CeNCOOS Program Office leadership, conducts annual programmatic reviews. Reviews will take place directly following CeNCOOS Fall Science meetings. For the annual review, the full Governing Council will use the aforementioned prioritization criteria (*see* Section 10) to assess progress and make recommendations for future funding scenarios. The CeNCOOS Director will use those recommendations when executing future budgets. The performance of the DMAC Sub-system and the associated contract personnel are also evaluated annually by the Governing Council.

### 14. Expressions of Interest

#### What they are, why we need them, who should submit them?

CeNCOOS will request *Core* and *Emerging Efforts* Expressions of Interest every 5-years or as funding permits. EOIs may be submitted by past, present and prospective PIs, data and/or information providers, modelers, product developers, outreach and education specialists, or other stakeholders. Teams of information providers, particularly including both providers and users and representing state-wide geographic scopes, are encouraged to collaborate on EOIs. Proposed projects may include any activities that fit within CeNCOOS strategic plan and are consistent with the CeNCOOS mission. EOIs will provide a formal but flexible mechanism for suggesting new projects, participants, and priorities.

#### What the call for EOIs will include:

The 5-year call for EOIs will include a description of the CeNCOOS priority-setting process, including: vision and mission statements; CeNCOOS strategies and capabilities; the

considerations used in establishing priorities and who has responsibility for setting the priorities (see Criteria for Decision-Making above). A list of the current CeNCOOS priorities and activities will also be included. Any additional criteria and evaluation methods funding will be included with the EOI call, and any information regarding upcoming funding opportunities will be provided. A description of how the EOIs will be used, with an explicit statement that those submitting an EOI are not guaranteed to receive funding through CeNCOOS, will be included.

**What the EOIs will be used for:**

The EOIs will be used in selecting continuing and new projects to pursue in alignment with CeNCOOS goals. In addition to being considered when making funding decisions with core CeNCOOS funds from the IOOS Program, the portfolio of EOIs will serve as an index of current expertise and interest within CeNCOOS, and will be consulted when new opportunities arise. They will allow the Director and Governing Council to forward announcements of opportunity and funded requests for assistance to appropriate people, and to make informed initial responses until more complete proposals can be formulated. They will facilitate the pairing of data and information providers with end users. The portfolio of EOIs will also be used in soliciting funds for CeNCOOS activities.

**The timing of the calls:**

Generally, the EOI call will occur directly following the release for the NOA IOOS FFO. The exact date of these calls will be schedule dependent and decided by the CeNCOOS program office.

**What the EOIs will need to include:**

EOIs from existing and potential new PIs should include: principals and organizations involved; a description of the proposed project; a statement of how the proposed activity relates to the CeNCOOS strategic plan; the objectives, outcomes, deliverables, and end users for the project; anticipated costs and timeline; relationship to current CeNCOOS funding or activities if appropriate; and existing and potential funding sources other than core CeNCOOS funds from the IOOS Program.