Coastal & Marine Spatial Planning (CMSP) in the Southern California Bight

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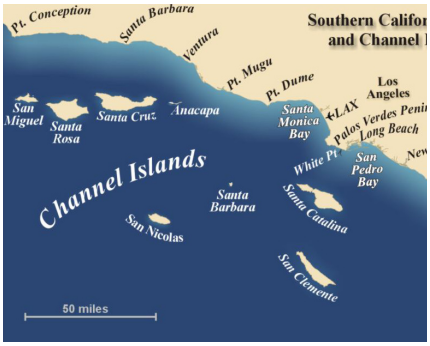
Sea Grant University of Southern California

Some Conclusions & Recommendations from a Forum co-Sponsored by the Aquarium of the Pacific Marine Conservation Research Institute (MCRI), University of Southern California Wrigley Institute, and the USC Sea Grant Program

On July 26-27, 2011 about 40 people met to explore how Coastal Marine Spatial Planning (CMSP) could be used in the Southern California Bight to benefit the environment and the economy. The forum was convened by the Aquarium of the Pacific, the University of Southern California's Wrigley Institute, and the USC Sea Grant Program. The forum was supported by the Ralph and Hazel Osborn and Lois J. Roark Charitable Trust. The participants included scientists, engineers, policy-makers, environmentalists, marine educators, and representatives of various offshore industries[1].

This is a brief summary of the major findings, conclusions and recommendations of the forum. These are consensus views and do not imply that everyone agreed with everything stated in this brief report. The forum was intended to move discussion of CMSP from the abstract to application and to make the case that the Southern California Bight would be an ideal laboratory for applying, testing and refining the CMSP process.

At the beginning of the forum, Charles N. (Bud) Ehler presented an overview of CMSP. Much of the following section is based on his presentation.



The Southern California Bight.

1. The participants and their affiliations are listed on the Aquarium's website www.aquariumofpacific.org. A more comprehensive summary of the forum will be posted on this site by November 30, 2011.

A BRIEF TUTORIAL ON COASTAL AND MARINE SPATIAL PLANNING (CMSP)

In its simplest terms, Coastal and Marine Spatial Planning is a process for bringing order to an increasingly crowded coastal ocean by allocating spaces to important uses by humans to reduce conflicts with other human uses and with nature to achieve environmental, economic, and social benefits on a sustainable basis. CMSP does not replace single sector planning and management, but looks across all sectors to reduce conflicts and enhance benefits to the environment and society. There are numerous definitions of CMSP, but all share many features in common.

The definition proposed by the Ocean Protection Council in OPC 2010z.10.26 (in Nov 2010 CMSP Workplan Memo) is

Coastal and Marine spatial planning is a comprehensive, adaptive, integrated, ecosystem-based, and transparent planning process. It is based on sound science and integrates ecological, economic, and social information on current and projected uses of marine waters to inform management and regulatory decisions, reduce conflicts, and facilitate compatibility among projected uses, while sustaining the State's marine ecosystem and resources for present as well as future generations.

A simpler, more elegant definition was offered by Ehler and Douevre. Marine Spatial Planning is...

"The public process of analyzing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives that are usually specified through a political process." (ioc.unesco.org/marinesp)

CMSP is a process. In virtually all of the definitions it is described as a process that should be open, inclusive, transparent, future-oriented, ecosystem-based, place-based, and integrated across sectors. It also is to be an iterative, on-going process. While planning is at the core, a successful CMSP process includes not only planning, but implementation, enforcement, monitoring, evaluation, and adaptation based upon new data and information to achieve goals and objectives. It might more appropriately have been called "Coastal and Marine Spatial Management." Processes should be judged by the outputs and the outcomes they produce, not by the beauty of the process.

A brief recent History of CMSP in the U.S.

- *June 2009: President Obama directed 22 Federal Agencies to develop "a framework for effective coastal and marine spatial planning."*
- *July 2010: President Obama signed Executive Order 13547 adopting the Ocean Policy Task Force's report defining a National Ocean Policy that prioritizes the protection, maintenance and restoration of ecosystem health and sustainable economic development of our coastal and ocean economies. CMSP is the process identified to achieve the goals.*

Marine Spatial Planning has been done in Europe and Australia for decades. The "C"—Coastal—was added in the U.S. to accommodate the interests of coastal states, including those around the Great Lakes.

Some Distinguishing Features of the Southern California Bight

The Southern California Bight (SCB) encompasses the coast, offshore islands and the part of the Pacific Ocean between Point Conception, north of Santa Barbara, south to just below Ensenada, Mexico. In this report we focus on the U.S. portion of this region. The population of the five California coastal counties bordering the SCB totals more than 17.2 million people, larger than the entire population of all states except Texas, New York, and Florida. Many of these individuals make intensive and varied uses of the SCB, sharing the SCB with natural and industrial users. Some of the more important uses are listed below.

Recreation

A primary source of recreation—both active and passive—for millions of people.

Home to some of the nation's most beautiful and busiest public beaches; beaches that are visited by millions of residents and tourists every year

Some of the best surfing in the continental U.S.

The world's largest small boat marina, Marina del Rey.

Intensive use by recreational powerboats and sailboats.

An intensive recreational fishery.

Commerce & Military

An important but modest commercial fishery

The nation's two largest container ports—the Port of Long Beach and the Port of Los Angeles—that account for about half of all imported finished goods to the U.S.

California's 27 operating offshore oil platforms and six offshore oil islands—all located within about 10 miles of shore

Important military traffic and training exercises

Infrastructure

Receiving waters for more than 1.1 billion gallons of treated municipalwaste water every day from 18 wastewater treatment facilities.

Source of cooling water for 10 coastal power plants that generate more than 40% of the energy used within the region.

Natural

A diverse array of productive ecosystems that support high productivity and diversity of marine life including invertebrates, fishes, shore and sea birds, sea turtles, seals and sea lions, migrating whales, and distinctive ecosystems such as kelp forests, coastal marshes and estuaries, areas of biological significance, and a network of marine protected areas.

Cultural

A place where quality of life is defined by the relationships people have with the ocean. These have been memorialized in music, film, and TV.

Some Qualities Desired for the California Bight in the future:

There was strong consensus that these are qualities desired for the Southern California Bight in the future, by 2050:

- A mosaic of healthy and productive coastal and marine ecosystems that accommodates important societal uses to benefit the economy without degrading the marine environment.
- Access to clean, attractive beaches and coastal waters that enhance the California beach, surfing, and ocean culture.
- A place known for public health and safety for all users.
- A working waterfront that sustains traditional lifestyles such as fishing, and also contributes to tourism.
- A powerful sense of place consistent with the California ocean ethic.
- A source of a safe, secure, stable supply of healthful seafood through well-managed fisheries and sustainable offshore aquaculture.
- A source of renewable energy to meet the demands of a growing population.
- A thriving indigenous maritime culture.
- A global model for marine stewardship.
- A hotbed of creativity and technological innovation on ways to use the ocean in sustainable ways that conserve ecosystem health and benefit society through a vibrant and diverse ocean economy with well-paying jobs.
- A regulatory framework and permitting process that encourage innovation through experiments and pilot projects.
- A field laboratory that engages the oceanographic programs at institutions around the SCB. They are among the best in the world.
- An informed public that is engaged in ensuring healthy marine ecosystems and appropriate uses to benefit the economy without sacrificing environmental quality.

Major Conclusions

- The working hypothesis at the beginning of the forum was that the Southern California Bight would be an ideal laboratory for applying, testing, and refining CMSP. Nothing that transpired in the forum violated that hypothesis.
- One essential ingredient of a successful CMSP effort must be an innovative and sustained program of public education and outreach to increase the understanding of what CMSP is, what it is not, and how if properly done, it can benefit the environment and the economy. The program must reach large numbers of people who represent diverse stakeholder groups and a representative cross-section of those who live in Southern California.
- There was also unanimous agreement that CMSP must be an on-going, iterative process.
- The existing regulatory framework and permitting process impede responsible uses of the ocean that could benefit the economy without sacrificing environmental quality.
- A series of small, carefully planned pilot projects should be carried out in the context of a comprehensive CMSP process. Themes that received considerable support were offshore finfish aquaculture, offshore algae aquaculture for production of biofuels, and offshore renewable energy. All pilot projects should be held to high environmental standards. If they fail to meet them, they should be terminated. But if they achieve those standards, they should be allowed to expand in time and in space.
- A compelling and distinctive statement of a collective vision of the qualities and uses Southern Californians want the Southern California Bight to have in the future is essential to a sustained and successful CMSP program. One strategy that received strong support was to develop a series of stories—scenarios—of how the Southern California Bight might turn out in the future depending upon how nature evolves and the decisions society makes.
- The mistrust of government at all levels is a significant barrier to launching and sustaining a comprehensive CMSP process. Perhaps nowhere in the United States is the mistrust of government greater than in California.
- At present the ocean is not widely perceived as having the potential to contribute to solving the nation's pressing economic and jobs issues. California could change that.
- Major issues facing Southern California in the near future will be to provide a growing population with an adequate and sustainable source of fresh water; an adequate, stable, and sustainable supple of energy; and an adequate, stable and sustainable supply of healthful seafood. The Southern California Bight could contribute to all of these.
- Another benefit of a properly configured and executed CMSP program is the ability to monitor and manage cumulative impacts of human uses and keep them within acceptable bounds to avoid adverse impacts on marine life and coastal and ocean ecosystems.

In summary, *CMSP can contribute to creating the future of the Southern California Bight desired by Southern Californians.*

A Way Forward

A CMSP strategy for the Southern California Bight should address these fundamental questions:

1. What is the condition of the Southern California Bight today? How is it used and by whom? What environmental qualities support those uses?
2. What do we want the Southern California Bight to be like in the future and how do we want it to contribute to the ecology, the economy, to preservation of traditional lifestyles such as fishing, traditional native maritime cultures, and traditional uses consistent with the California ocean ethic?
3. How do we get there?
4. How are we doing? Progress needs to be measured and reported in a systematic way.

Some of the elements proposed to launch a CMSP process in Southern California are listed below:

- Convene a number of public meetings up and down the coast to inform the public about CMSP, to listen to their concerns, and to what qualities they would like the Southern California Bight to have in the years 2025, 2050 and 2100. These desired qualities become the basis for development of a shared vision. CMSP can be a powerful tool for achieving the vision.
- Survey major user groups and industrial sectors—existing and prospective—to determine what they want from CMSP in the Southern California Bight...how CMSP could benefit each of the various ocean sectors—fishing, both commercial and recreational; shipping and transportation; aquaculture; renewable ocean energy; tourism; recreation—both passive and active.
- Engage a cross-section of the people doing scenario planning for the Southern California Bight and develop a set of scenarios—stories—describing how the Southern California Bight could turn out that cover the range of plausible futures. Each scenario should be an internally consistent and plausible pathway to the future. One of those must be what will happen if we do nothing to change the ways we plan for and mange the uses of the SCB in the face of increasing population and associated demands for fresh water, energy, and protein; a rising sea level; and more frequent and extreme coastal storms.
- Identify and cultivate a core group of champions for the CMSP process. They can be individuals or institutions that command respect and the trust of important constituencies. The challenge is not to avoid biases, but to balance them. Legislative, executive, or regulatory champions can be powerful in ensuring the flow of resources needed to sustain the CMSP process. The CMSP process needs to be open; it also needs champions to sustain it. The CMSP process and the dynamic allocation plan must be robust enough to survive transitions of administrations and changes in legislative leadership.
- The process should begin. As it unfolds, the new data and information needed will become clear and can form the basis for a focused research program.

The lead story in the **January 1, 2020** edition of the Los Angeles Times could read like this...

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