



## MEMORANDUM

TO: Ocean Protection Council

FROM: Valerie Termini McCormick

DATE: May 12, 2011

RE: California Fisheries Overview

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This fisheries panel is designed to inform the Council on the status of California fisheries and to clarify priorities and identify emerging challenges where OPC engagement can have a meaningful impact. This discussion will help inform the strategic direction of the OPC over the next five years. The panel is comprised of key partners with whose continued dialog is essential to advance sustainable fisheries in California. They include:

- *Sonke Mastrup, Deputy Director, California Department of Fish and Game*
- *Rod McInnis, Regional Administrator, Southwest Region, NOAA National Marine Fisheries Service*
- *Roberta Reyes Cordero, JD, Member, Coastal Band of the Chumash Nation*
- *Zeke Grader, Executive Director, Pacific Coast Federation of Fishermen's Associations*
- *Mike Sutton, Vice President, Monterey Bay Aquarium*
- *Pietro Parravano, Commercial Fisherman, President of the Institute for Fisheries Resources*
- *Dan Wolford, Coastside Fishing Club*
- *Linda Sheehan, Executive Director, California Coastkeeper Alliance*

Through the OPC strategic planning process, staff is working with fishery managers, stakeholders, fishermen, and others to develop an effective and efficient roadmap for the future to help the OPC “work smarter” and do “more with less”. Through this process, we will target fishery projects where the OPC can make a measureable, concrete difference.

### ***Management Framework***

The waters off California’s coastline boast some of the most productive fisheries in the world and as a result, many parts of California’s coast have a rich fishing heritage. California has played an active role in the management of its fisheries since the establishment of the Board of Fish Commissioners (precursor to the California Fish and Game Commission) in 1870. In the ensuing 140 years, a myriad of state and federal laws, regulations and treaties have been enacted resulting in a fragmented, and often complex, fisheries management program.

Fisheries that occur primarily in state waters (shoreline to three nautical miles offshore) are generally managed solely or jointly by the California Legislature or the California Fish and Game Commission (Commission) by authority granted under the federal Submerged Lands Act of 1953. Fisheries that primarily occur in the United States exclusive economic zone (three to 200 nautical miles offshore)<sup>1</sup> are generally managed by the Pacific Fishery Management Council (PFMC) under authority established by the Magnuson Fishery Conservation and Management Act of 1976 and the Sustainable Fisheries Act of 1996, reauthorized in 2006. However, as fish do not recognize these convenient management boundaries, there is overlap between jurisdictions for many species.

The passage of California's Marine Life Management Act (MLMA) of 1998<sup>2</sup> is widely recognized as a turning point in the state's approach to fishery management. The statute required, among other things, the development of a Master Plan, regular status reports about marine resources, the use of best available science, and the development of Fisheries Management Plans (FMPs) as the primary fisheries management tool. In addition to transferring some authority over commercial fisheries from the Legislature to the Commission, the MLMA also expanded the scope of traditional fisheries management to focus on ecosystems, adaptive management, wider constituent involvement, non-consumptive uses, and long term sustainability over short term health.

### *California's Marine Fisheries*

California's diverse marine fisheries range from large scale semi-industrial commercial harvesters to an individual fisherman walking the beach with rod and reel. Commercial fisheries employ a variety of techniques including traps, nets, hook and line and collection by hand. The focus of fisheries is equally diverse ranging from marine algae to invertebrates such as squid, shrimp, crabs, lobsters, and sea urchins to finfish such as sardines, halibut, rockfish, and salmon.

Commercial Fisheries: In 2007, California's commercial fisheries landed approximately 383 million pounds worth approximately \$120,000,000<sup>3</sup>. The top ten species by weight made up approximately 94% of the total landed weight in 2007, while the top ten species by value made up approximately 80% of the total value in 2007 (Table 1). The recent landings and value of California's commercial fisheries are greatly reduced from their peak of 1.3 billion pounds in 1976 and \$ 300 million in 1980.<sup>4</sup>

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<sup>1</sup> Presidential Proclamation No. 5030 of March 10, 1983

<sup>2</sup> California Fish and Game Code §7050 et seq.

<sup>3</sup> National Ocean Economics Program – [www.oceaneconomics.org](http://www.oceaneconomics.org)

<sup>4</sup> Kildow and Colgan, 2005. California's Ocean Economy. Report to the Resources Agency, State of California. National Ocean Economics Program. [http://resources.ca.gov/press\\_documents/CA\\_Ocean\\_Econ\\_Report.pdf](http://resources.ca.gov/press_documents/CA_Ocean_Econ_Report.pdf)

**Table 1. Top Ten Commercial Marine Resource Species for California in 2007**

Rank by Weight	Rank by Value	Weight Species	Weight (lbs)	Landed Value	Primary Management
1	3	Pacific Sardine	178,480,103	\$ 8,218,158	PFMC
2	1	California Market Squid	108,990,594	\$ 29,093,312	Commission
3		Northern Anchovy	22,901,916	\$ 1,103,299	PFMC
4	6	Sea Urchin	11,131,171	\$ 5,400,279	Commission
5		Chub Mackerel	11,060,845	\$ 788,915	PFMC
6	2	Dungeness Crab,	11,024,395	\$ 26,892,110	CA Legislature
7	10	Dover Sole	6,100,906	\$ 2,376,031	PFMC
8		Pacific Hake (whiting)	5,888,062	\$ 386,216	PFMC
9	7	Sablefish	3,240,434	\$ 4,872,745	PFMC
10		Petrale Sole	2,019,594	\$ 2,122,196	PFMC
	4	Chinook Salmon	1,742,741	\$ 7,835,240	PFMC
	5	California Spiny Lobster	662,644	\$ 6,915,601	Commission
	8	Swordfish	1,209,746	\$ 3,126,635	PFMC
	9	Spot Prawn	258,684	\$ 2,879,716	Commission

*Data Source: National Ocean Economics Program*

Recreational Fisheries: California's recreational fisheries are an important component of the social fabric of many California communities. In the year 2000, expenditures related to recreational fisheries contributed an estimated \$200 billion to California's coastal economy (includes direct, indirect and induced expenditures)<sup>5</sup>. Recreational anglers fish from shores, piers, private vessels, party boats (Commercial Passenger Fishing Vessels), kayaks and by scuba and skin diving. Targeted species vary greatly by season and region with rockfishes and surfperches commonly caught statewide, salmon, lingcod, and abalone commonly caught in the northern portion of the state and sand and kelp basses, tuna, croaker, and lobster commonly caught in southern portion of the state. There were an estimated 3.7 million saltwater angler trips in California in 2007<sup>6</sup>. Despite the great popularity and value of recreational fisheries in California, there is a distinct paucity of data describing the level of take or the number of recreational saltwater anglers in California.

#### *Fisheries Challenges and Opportunities*

The disjointed management structure of California's fisheries and chronic funding constraints present both management challenges and opportunities for improvement. Approximately 70% of California's fished stocks (103 of 149 species) lack stock assessments and thus may be defined

<sup>5</sup> *Id.*

<sup>6</sup> California Department of Fish and Game, 2008. California Recreational Fisheries Survey 2007 Annual Review. Report to the California Fish and Game Commission.

as data-poor fisheries<sup>7</sup>. The lack of data and formal stock assessments limits the ability of managers to make informed decisions which can pose serious risks to fishery resources and threaten the economic livelihoods of our coastal communities.

Opportunities exist to, among other things, expand data collection and reporting systems, develop approaches to proactive management of data poor species, expand collaborative programs with both commercial and recreational fisherman, and evaluate fee structures and costs associated with management.

The OPC has funded innovative and effective projects that are aimed at addressing some of these challenges. Some of these projects include;

- **The California fisheries fund:** The fund offers loans to California fishing communities, groups, associations, and businesses who are interested in transitioning to more environmentally and economically sustainable fishing practices and management approaches. The Fund was developed in response to the lack of traditional capital available for financing improvements in fishery management, processing, and marketing that, in turn, could enhance conservation, profitability, and viability of fishing communities.
- **The Central Coast Groundfish Project:** The goal of the project is to establish a community-based fishing institution that can provide for the long-term ecological and economic sustainability of the Central Coast groundfish fishery. OPC funds have been used to develop and implement aspects of the project which evaluate and demonstrate the effectiveness of different harvesting techniques and ways of organizing fishing effort to achieve the goals of ecological and economic sustainability.
- **The Collaborative Fisheries Research (CFR) Organization:** The CFR program brings together fishermen, fishery managers, and scientists to work collaboratively on research projects bringing their own distinct knowledge to bear on the project. The goal is to ensure that necessary data gathered in a manner that will improve fisheries management. These projects are examples of how the OPC is working with diverse stakeholders to help create change in the way we are managing our ocean and coastal resources for the better.

Through these projects and others, the OPC has made a significant investment in our coastal fisheries and communities. The next five-year plan will present a strategic, collaborative, and targeted approach to address sustainable fisheries. Pursuing innovative policies and projects to help restore and support our fisheries and California's coastal communities will remain a key focus of the OPC.

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<sup>7</sup> Botsford, L. W. and D. P. Kilduff. 2008. The data-richness spectrum and sustainability of California fisheries. R. Starr, editor *Managing Data-Poor Fisheries: Case Studies, Models, Solutions*, University of California, Berkeley. Available at: [http://mdpmlml.calstate.edu/sites/default/files/PPTs/Botsford\\_Data-Poor\\_CA.ppt.pdf](http://mdpmlml.calstate.edu/sites/default/files/PPTs/Botsford_Data-Poor_CA.ppt.pdf)