

CALIFORNIA OCEAN PROTECTION COUNCIL

Staff Recommendation

October 17, 2016

Guidance for Building and Using Socioeconomic Essential Fishery Information

Jenn Phillips, Program Manager

RECOMMENDED ACTION: Authorization to disburse up to \$45,000 to Regents of the University of California, Santa Cruz to provide 1) guidance on the socioeconomic questions and information needs that are most important for fishery managers to address, and 2) a framework for building that information and integrating it into management, specifically the MLMA Master Plan Amendment

LOCATION: Statewide

STRATEGIC PLAN OBJECTIVE(S): Sustainable fisheries and marine ecosystems, and science-based decision-making

EXHIBITS

Exhibit A: Support Letters

FINDINGS AND RESOLUTION:

Staff recommends that the Ocean Protection Council (OPC) adopt the following findings: “Based on the accompanying staff report and attached exhibit(s), the Ocean Protection Council hereby finds that:

- 1) The proposed projects are consistent with the purposes of Division 26.5 of the Public Resources Code, the Ocean Protection Act.
- 2) The proposed projects are consistent with the Ocean Protection Council's grant program funding guidelines (Interim Standards and Protocols, August 2013).
- 3) The proposed project is not a ‘legal project’ that triggers the California Environmental Quality Act (CEQA) pursuant to Public Resources Code section 21068 and Title 14 of the California Code of Regulations, section 15378. If it were determined to be a ‘legal project’ under CEQA, the proposed project is categorically exempt from review under CEQA pursuant to 14 Cal. Code of Regulations Section 15306 because the project

involves information collection, consisting of data collection, research, and resource evaluation activities that will not result in a serious or major disturbance to an environmental resource.”

Staff further recommends that the OPC adopt the following resolution pursuant to Sections 35500 *et seq.* of the Public Resources Code:

“The California Ocean Protection Council hereby approves the disbursement of up to \$45,000 to Regents of the University of California, Santa Cruz to provide 1) guidance on the socioeconomic questions and information needs that are most important for fishery managers to address, and 2) a framework for building that information and integrating it into management, specifically the MLMA Master Plan Amendment.

This authorization is subject to the condition that prior to disbursement of funds, the University of California, Santa Cruz shall submit for the review and approval of the Executive Director of the OPC detailed work plans, schedules, staff requirements, budgets, and the names of any contractors intended to be used to complete the projects, as well as discrete deliverables that can be produced in intervals to ensure the projects are on target for successful completion. All projects will be developed under a shared understanding of process, management and delivery.”

PROJECT SUMMARY:

This proposed project has the potential to improve the management of California’s fisheries. This work will provide guidance on how to incorporate socioeconomic considerations into fisheries management. Specifically, this project will develop guidance for the California Department of Fish and Wildlife (CDFW) regarding the key questions and information needs that should be considered in managing California fisheries, the collection, synthesis and analysis of pertinent socioeconomic data, and the integration of this information into the fishery management decision process. This guidance would be used by CDFW to inform its development of the MLMA Master Plan Amendment.

Background:

There is increasing recognition of fisheries as integrated social-ecological systems, and the importance of understanding and addressing the “social” - or human dimensions - of these systems, as they affect and are affected by ecological systems and management. California’s Marine Life Management Act (MLMA, 1998) specifies socioeconomic as well as ecological goals and objectives for management of the state’s fisheries. Moreover, the MLMA requires that fisheries be managed using a proactive, coordinated, and holistic approach. The MLMA cites the cultural as well as the economic importance of sustainable fisheries and the broader social,

economic and historical value of the state's living marine resources.

The MLMA's socioeconomic objectives for fishery management include: observing the long-term interests of people dependent on fishing for food, livelihood, or recreation (California Fish & Game Code (FGC) 7056(i)); minimizing the adverse impacts of fishery management on small-scale fisheries, coastal communities, and local economies (FGC 7056(j)); and being proactive and responding quickly to changing environmental conditions and market or other socioeconomic factors, and to the concerns of fishery participants (FGC 7056(l)). The MLMA also expects CDFW to ensure that essential fishery information is accessible to staff so that such information may inform fishery management decisions (FGC 7056(g)). In addition, the MLMA requires that fishery management plans include: a summary of the economic and social factors related to the fishery (FGC 7080(e)); and if additional conservation and management measures are included in the plan, a summary of the anticipated effects of those measures on relevant fish populations and habitats, on fishery participants, and on coastal communities and businesses that rely on the fishery (FGC 7083(b)).

While the MLMA and the MLMA Master Plan (2001) address the need to include socioeconomic information in the management of California fisheries, neither document provides guidance on the socioeconomic questions and information needs that are most important for fishery managers to address, or a framework for building that information and integrating it into management. In addition, the need for socioeconomic essential fishery information and the lack of guidance on its collection, analysis, and use continue to pose critical challenges for meeting MLMA objectives. Ultimately, this lack of guidance limits managers' ability to evaluate trade-offs, anticipate responses, and prevent unintended negative consequences for the marine and human environments.

As an example (from federal fishery management, with implications for the state), a lack of understanding about the human dimensions of the groundfish trawl fishery and the larger fishery system in which it is embedded made it difficult to foresee impacts of the 2003 federal buyback on fishing communities and other fisheries (e.g., shifting effort into the crab fishery; substantial reductions in trawl fishery-related demand for goods and services, affecting those businesses and their ability to provide goods and services to others). More recently, a marked shift in the distribution of market squid led to shifts in fishing effort and related activity, with unintended socioeconomic and ecological implications. It also led to questions about how fishery participants, communities and management can adapt to such changes, whether they be short- or long-term. The recent closure of the Dungeness and rock crab fisheries due to persistent, elevated levels of domoic acid toxins provides a third example where socioeconomic information is needed not only to determine whether or not the state requests federal disaster assistance, but also to anticipate how fishery participants may adapt (e.g., shifting fishing

location, increasing effort in another fishery).

The 2001 MLMA Master Plan identified five types of socioeconomic essential fishery information: employment, expenditures, resource demand, revenue, and user/industry demographics. While these types of essential fishery information are important, additional types of information are needed. Examples include social and economic relationships; individual behavior, including strategies for adapting to environmental, regulatory and economic uncertainty, variability and change; and community structure and dynamics as they affect and are affected by fishery management.

Fishery management actions should consider the entire ecosystem and the relationships between and among organisms through ecosystem-based management practices. Similarly, considering the human systems associated with individual fisheries and with multiple, interacting fisheries (including federally- and state-managed fisheries) is essential for designing effective management, achieving desired outcomes, and avoiding negative unintended consequences.

To assist CDFW in its efforts to incorporate socioeconomic considerations into fisheries management, this project will develop guidance for CDFW. The project entails two phases. The first phase is underway and has been funded by the Resources Legacy Fund. If approved, OPC would fund the second phase of work and that is detailed below in the 'Project Description & Deliverables'. The goals of the first phase are to a) document recent applicable advances in the incorporation of socioeconomic information into fisheries management; b) identify socioeconomic/human dimensions questions and information needs that address MLMA objectives; c) and pinpoint key questions that state fishery managers should address in their fishery management planning. This work is intended to integrate with the Fish and Game Commission's recent efforts to better understand needs and interests of the state's fishing communities. This first phase will build upon previous work done by Pomeroy and Hunter (2008) and social science colleagues working in other relevant contexts.

Project Description & Deliverables:

This proposed project has the potential to improve the management of California's fisheries. The second phase (Phase 2) of the project would build on the knowledge derived from the first phase to provide guidance on how to incorporate socioeconomic considerations into fisheries management. Specifically, this project will develop guidance for CDFW regarding the key questions and information needs that should be considered in managing California fisheries, the collection, synthesis and analysis of pertinent socioeconomic data, and the integration of this information into the fishery management decision process. This guidance would be used by CDFW to inform its development of the MLMA Master Plan Amendment.

The goal of Phase 2 is to develop guidance to support the integration of socioeconomic considerations into MLMA implementation and related fishery management.

Phase 2 will result in the following deliverables:

- 1) A guidance document for CDFW on how to incorporate socioeconomic and human dimensions data into fisheries management plans. This guidance document will outline the types and sources of data CDFW should collect, methods and tools for collecting, synthesizing, and analyzing the data, and suggested literature to review.
- 2) A high-level characterization of the types of questions that need to be addressed to better understand and incorporate socioeconomic information into fisheries management. This characterization will enable CDFW to prioritize its efforts and resources.
- 3) A guidance document for fisheries managers on how to incorporate the human dimensions into aspects of California's fisheries management including: a) the characterization of socioeconomic relevance of a fishery for FMPs; b) the evaluation of the potential socioeconomic impacts of fishery management options on fisheries and fishing communities; c) the assessment of impacts of management actions taken, to support adaptive management; and d) the development of management strategies that enable and enhance fishing community resilience in a changing environment. This guidance will be based upon the above results, existing research with California fisheries (e.g., California halibut, market squid, and Dungeness crab) and fishing communities, and targeted discussions with CDFW personnel who are developing or will soon be developing fishery management plans (e.g., herring).

Concurrent with the above activities, the Principal Investigator will provide input to, and draw upon information and insights generated by the Ecological Risk Assessment¹ and Ready California's Fisheries for Climate Change MLMA Master Plan Update working groups². The work plans for these two working groups indicate that various socioeconomic aspects of fisheries will be incorporated into their analyses and products.

Project Timeline:

1. Phase 1: September 2016 – January 2017
2. Phase 2: Guidance development: November 2016 – April 2017
3. Report integration, peer review and completion: April – June 2017
4. Interact with ERA/Climate Change and Fisheries working groups: April 2016 – June 2017

¹ http://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20150729/Item5b-OPC-Jul-29-2015-Proposed-Resolution-for-Funding-Fisheries-Projects.pdf

² OPC is funding OST for this from grant C0100300 authorized by the Council in June 2013.

PROJECT FINANCING:

Staff recommends that the Ocean Protection Council (OPC) authorize encumbrance of up to \$45,000 to the Regents of the University of California, Santa Cruz to provide 1) guidance on the socioeconomic questions and information needs that are most important for fishery managers to address, and 2) a framework for building that information and integrating it into management, specifically the MLMA Master Plan Amendment

Ocean Protection Council	\$45,000
Resources Legacy Fund	\$25,000
TOTAL	\$70,000

The anticipated source of funds will be from the Ocean Protection Council’s appropriation of the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84). Proposition 84 authorizes the use of funds for purposes consistent with Section 35650 of the Public Resources Code, establishing the California Ocean Protection Trust Fund (Pub. Res. Code § 75060(g)). Under Section 35650(b), Ocean Protection Trust Fund monies may be expended for projects authorized by the OPC that are identified as appropriate Trust Fund purposes, as specified. The project is consistent with the Trust Fund purposes as discussed in the following section.

Leverage of OPC funds

This project and funding from OPC would build on funding from Resources Legacy Fund to complete Phase 1 of this project.

CONSISTENCY WITH CALIFORNIA OCEAN PROTECTION ACT:

The proposed project is consistent with the Ocean Protection Act, Division 26.5 of the Public Resources Code, because it is consistent with trust-fund allowable projects, defined in Public Resources Code Section 35650(b) as projects which:

- Improve the management of fisheries
- Foster sustainable fisheries
- Improve management, conservation, and protection of coastal waters and ocean ecosystems

CONSISTENCY WITH THE OPC'S STRATEGIC PLAN:

This project implements Focal Area A: Science-based decision-making and Focal Area C: Sustainable fisheries and marine ecosystems.

CONSISTENCY WITH PROPOSITION 84 (The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006; Public Resources Code §75060(g))

This project is consistent with the purposes outlined in Proposition 84, specifically it includes the development of scientific data needed to adaptively manage the state's marine resources and reserves.

CONSISTENCY WITH THE OPC'S GRANT PROGRAM FUNDING GUIDELINES:

The proposed project is consistent with the OPC's interim Grant Program Funding Guidelines for Proposition 84 funds, in the following respects:

Required Criteria

1. Directly relate to the ocean, coast, associated estuaries, or coastal-draining watersheds: *This project will focus on how socioeconomic indicators are considered in our state's fisheries and the MLMA applies to marine fish, shellfish, and wildlife.*
2. Support of the public: *See Exhibit A*
3. Greater-than-local interest: *Given that this project is addressing a statewide management act (specifically, the MLMA Master Plan Amendment), this work has impact that spans the length of the state of California.*

Additional Criteria

4. Improvements to management approaches or techniques: *While the MLMA and the MLMA Master Plan (2001) address the need to include socioeconomic information in the management of California fisheries, neither document provides guidance on the socioeconomic questions and information needs that are most important for fishery managers to address or a framework for building that information and integrating it into management. This project would begin to address socioeconomic information and provide tools for CDFW on how to incorporate this information through guidance documents.*
5. Leverage: *As mentioned in the Project Summary, this funding would build on funding provided by the Resources Legacy Fund to complete Phase 1 of this work.*
6. Timeliness or Urgency: *This project should be funded now given the urgency of incorporating socioeconomic information more centrally into the MLMA Master Plan Amendment and given that Phase 1 is underway.*

COMPLIANCE WITH CEQA:

The proposed project is not a 'legal project' that triggers the California Environmental Quality Act (CEQA) pursuant to Public Resources Code section 21068 and Title 14 of the California Code

of Regulations, section 15378. If it were determined to be a 'legal project' under CEQA, the proposed project is categorically exempt from review under CEQA pursuant to 14 Cal. Code of Regulations Section 15306 because the project involves information collection, consisting of data collection, research, and resource evaluation activities that will not result in a serious or major disturbance to an environmental resource. Staff will file a Notice of Exemption upon approval by the OPC.