

CALIFORNIA OCEAN PROTECTION COUNCIL

Staff Recommendation
July 29, 2015

California State Fisheries Management: Current Efforts and Future Needs

Project Manager: *Jacqueline Meyer*

PROJECT DESCRIPTION: Authorization to disburse up to \$985,000 to the California Department of Fish and Wildlife (DFW) and the Ocean Science Trust (OST) to develop recommendations that will help inform anticipated amendments by the Fish and Game Commission to the Marine Life Management Act (MLMA) Master Plan for Fisheries in the fall of 2017. Specifically, staff seek authorization to grant up to \$235,000 to OST for the purposes of conducting an ecological risk assessment, applying a productivity and susceptibility analysis to specified fisheries, engage in an ecological risk assessment pilot project, and for the development of a climate change assessment. Staff also seek to enter into a \$750,000 inter-agency agreement with DFW to develop and implement a marine landing database. In addition, there is significant interest from stakeholders and external investors for these projects, thus, these projects build upon on a larger effort. More detailed scopes of work and background information can be found in this report.

FUND SOURCE: Proposition 84

RECOMMENDED ACTION: Approve with Conditions.

LOCATION: Statewide

STRATEGIC PLAN OBJECTIVE: Sustainable fisheries and marine ecosystems

EXHIBITS

Exhibit 1: Letters of support

Exhibit 2: November 21, 2013 [OPC Resolution](#) supporting science-based decision making, ensuring success of the MLMA, and implementing strategic and innovative approaches to ensure fisheries resiliency.

RESOLUTION AND FINDINGS:

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

WHEREAS, California's ocean and coastal ecosystems are some of the most productive systems in the world;

WHEREAS, These systems are increasingly at risk from a variety of threats such as climate change, increasing ocean temperatures, ocean acidification, and oil spills;

WHEREAS, OPC's mission is to ensure that California maintains healthy, resilient, and productive ocean and coastal ecosystems for the benefit of current and future generations, the Fish and Game Commission (FGC) is tasked with approving regulations for directing how such management is to occur, and DFW is tasked with implementation of that management.

WHEREAS, California's Marine Life Management Act (MLMA) was adopted in 1998 and became law on January 1, 1999 (See, Fish and Game Code §7073 *et seq.*), and;

WHEREAS, The MLMA requires DFW and the FGC to manage marine resources in a way that conserves marine life, but also provides for healthy, sustainable fisheries. In the 15 years since its adoption, DFW has effectively implemented the MLMA for certain single-species fisheries. However, there are components of the law that have not been fully implemented. At the same time, the past 15 years have yielded valuable lessons regarding implementation and significant advancements have been made in the field of fisheries management and science, offering new and likely more efficient ways to implement the MLMA. The MLMA itself remains an effective framework;

WHEREAS, The current 2001 Master Plan for Fisheries adopted by the FGC, which the MLMA requires as a guide to implementation, does not reflect recent innovations in fisheries management and science, including adaptive management of ecosystems based on real time risk analysis;

WHEREAS, Revisions to the Master Plan are anticipated for adoption by the FGC in fall 2017, and will provide the strategy and tools for enhancing the management of the state's fisheries over the next five to ten years so that they better meet the tenants of the MLMA and global standards for management and sustainability;

WHEREAS, DFW and OPC believe that by amending the Master Plan to incorporate new innovations and best practices, including risk-based ecological assessments and adaptive management approaches focused on the ecosystem scale, implementation of the MLMA can be revitalized to achieve its vision of thriving fisheries, healthy ecosystems, and transparent and strategic management;

WHEREAS, staff were directed in November of 2013, by Resolution of the Council "to dedicate up to \$4 million to augment the State's capacity to support effective fisheries management and that continue the spirit of supporting California's important commercial and recreational fisheries. Potential fishery projects should align with priorities of DFW and the FGC and may include, but are not limited to, programs such as certification of fisheries, fishery research, development or amendment of Fishery Management Plans, Fishery Improvement Projects, sustainable economic development in coastal communities, the creation of adaptive or co-management protocols, and support of community fishing associations.";

WHEREAS, Staff from the OPC, DFW, Fish and Game Commission (FGC) and OST have developed a strong partnership to thoughtfully develop an overall investment plan to meet this directive of the Council while ensuring state assets are deployed in a manner that meets the needs of fishermen, communities, tribal governments, non-governmental organizations, and scientists, and to bring fresh focus on the tenets of the MLMA;

WHEREAS, OPC and DFW agree some investment should shift fishery management planning and regulation from a species-based approach to one that is focused on the ecosystem scale, so that decisions can be made efficiently and adaptively in real time;

WHEREAS, OPC, OST, and DFW have proposed the first round of investments in this recommendation because they are foundational for administering the MLMA and updating the Master Plan to meet this new goal.

NOW, THEREFORE, THE COUNCIL RESOLVES THE FOLLOWING:

“The Ocean Protection Council hereby approves the disbursement of an amount not to exceed \$750,000.00 to DFW, and \$235,000 to OST, to develop recommendations that DFW and OPC can use to help inform amendments to the MLMA Master Plan and to develop updated management tools necessary for the effective management of California’s ocean fisheries. Within these totals the following allocations shall apply:

- 1) OPC shall grant no more than \$25,000 to OST to develop an ecological risk assessment (ERA).
- 2) OPC shall grant no more than \$60,000 to OST to conduct a Productivity & Susceptibility Analysis (PSA) methodology that can inform design and application of an ecological risk assessment. This will be done concurrently with the development of the ERA.
- 3) OPC shall grant no more than \$50,000 to OST to conduct a pilot ERA
- 4) OPC shall grant \$100,000 to OST to support the Ocean Protection Council Science Advisory Team’s (OPC-SAT) development of a chapter on addressing climate change in state managed marine fisheries for DFW. The chapter will be incorporated into a revision of the Master Plan, which will then be considered by the FGC in its regulatory capacity. The chapter will provide a framework and approach for ways to reduce the risk to sustainable fisheries in the face of a changing climate, as well as recognizing situations where fishery productivity might be expected to increase. The result will be a proposed framework and approach to guide sustainable fisheries management in the face of a changing climate.
- 5) OPC shall enter into an Inter-agency agreement with DFW not to exceed \$750,000 for development of a Marine Landing Database.

This authorization is subject to the condition that prior to disbursement of funds, DFW and OST shall submit for the review and approval of the Executive Director to the OPC detailed scopes of work, work plans, schedules, staff requirements, budgets, and the names of any contractors intended to be used to complete the projects, as well as discreet 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.

Staff further recommend that the Council adopt the following findings: “Based on the accompanying staff report and attached exhibits, 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.”
- 3) The proposed projects are not “legal projects” that trigger the California Environmental Quality Act pursuant to Public Resources Code section 21068 and Title 14 of the California Code of Regulations, section 15378.

Background on Each Proposed Expenditure

1) Ecological Risk Assessment (ERA). One of the key tenets of the MLMA is to include ecosystem considerations in marine fishery management (FGC 7050(b)(1) and (5), in other words, governance beyond the single species approach. This means that fishery management actions should consider the entire ecosystem and consider the relationships between and among organisms through ecosystem based management practices. Therefore, with the advent of more comprehensive, ecosystem-wide approaches to fisheries management, there has been a great deal of attention on the development of ecological risk assessments (ERA). An ERA is an iterative process that helps guide management actions for a particular fish stock/s by generating hypotheses concerning what or why ecological effects could occur or occurred as a result of particular actions. This is a prioritization tool that takes a more holistic approach to stock analyses within the context of the ecosystem, and the information obtained from it can be utilized by resource managers to inform their decisions.

The revision of the MLMA Master Plan for Fisheries must include prioritization of conservation and management needs for fisheries managed by the state FGC 7073(b) (1) and a priority list for preparation of FMPs (7073(b)(2). This requirement provides an opportunity to develop, test, and refine an ERA specific to California that contributes to a more efficient, transparent, and systematic review of California fisheries. A first step in taking advantage of this opportunity is to adapt available ERA applications to California and the MLMA in consultation with DFW, tribes, and stakeholders, and to test the resulting application on five pilot fisheries. The development and testing of an ERA will assist the DFW and the FGC in determining how best to allocate limited management resources to meet the objectives outlined in the MLMA for California's fisheries. The ERA project will entail the development, testing, and refinement of a risk-based prioritization framework to assess the performance of fisheries under the MLMA. The goal of this project will be to provide information to DFW and FGC that they can then use to base future management applications. The entire project cost is expected to be no more than \$135,000.00, but the work will be completed in three phases or sub-projects separated below:

- a. Develop and review an ERA that meets the MLMA objectives. This is the design phase of the ERA, wherein OST will develop and execute a process for identifying, adapting, and refining an application of the ERA that will advance implementation of the MLMA. The ERA will be developed in close partnership DFW and in consultation with tribes, and stakeholders. This phase will select an ERA that best suits California's management needs, for example selecting an ERA that can incorporate climate change and MPAs into the assessment. Cost: Up to \$25,000 disbursed to OST.
- b. Select and apply a Productivity & Susceptibility Analysis (PSA). A PSA is a tool for identifying and prioritizing a fishery stock's vulnerability to overfishing. Evaluating 30 California fisheries with a PSA will be a first step in assembling the fisheries priorities list required by the MLMA. Cost: Up to \$60,000.00 disbursed to OST.
- c. Pilot use of ERA. In collaboration with DFW, the FGC, and the project steering group, OST will select five fisheries for an initial pilot test of the ERA application. Following review and revision of the application that reflects the lessons learned from the initial test, the grantee will refine the ERA application, evaluate the five test fisheries with the refined application, and evaluate another five fisheries. The ERA tool will enable prioritizing among the initial list of fisheries most vulnerable to failing to meet management objectives by comparing ecological impacts, including bycatch and impacts to habitat. Cost: Up to \$50,000.00 disbursed to OST.

2) Ready California's Fisheries for Climate Change – The purpose of this project is to develop a draft chapter in the Master Plan that will provide a framework and approach to guide sustainable fisheries management in the face of a changing climate. Since the DFW is beginning a process to update the MLMA Master Plan, it acknowledges that this presents a timely opportunity to seek scientific guidance from the broader academic arena and develop a practical approach to managing fisheries in light of a changing climate in California. The DFW and the Commission have sought the scientific and integration support of the OPC-SAT in co-producing a draft chapter of the updated Master Plan. Facilitated by the OST, the OPC-SAT (including relevant external experts) proposes to work collaboratively with the DFW and FGC to develop an approach by which climate change can be considered in sustainable management of California fisheries. The approach will be to bring the best scientific thinking to bear on this topic and develop a draft chapter as science guidance that can inform fisheries policy. The intended outcome of this work is a scientifically robust, and peer reviewed, framework and approach to guide sustainable fisheries management in the face of a changing climate in the form of a draft MLMA Master Plan chapter that provides high-level guidance and approaches for incorporating climate into the management process. Cost: \$100,000.00 disbursed to OST via grant.

3) Marine Landing Data System - Electronic Reporting – The Pacific States Marine Fisheries Commission (PSMFC) developed the E-Tickets electronic reporting system (E-Tix - <https://etix.psmfc.org>) for west coast fisheries in Oregon, Washington, and California. The use of an electronic fish ticket system became mandatory in 2011 with the Individual Fishing Quota (IFQ) management program for many federally managed groundfish on the west coast. Currently, a handful of California fish businesses are using both paper landing receipts, as required in California state regulation, and E-Tix, as required for the federally-managed IFQ groundfish program. As more fish businesses transition to E-Tix the paper landing receipts will be phased out. The DFW is collaborating with PSMFC to support DFW data entry for staff handling paper landing receipt types as part of the transition to E-Tix. This collaboration creates efficiencies for the fish businesses required to report the landings as they will only need to submit data once to meet both federal and state requirements. It also benefits DFW in that they can leverage an existing data system currently in use on the west coast.

The goal of this project is to develop and implement Marine Landing Data System (MLDS) electronic reporting system for all 15 commercial fisheries landings receipt types used in California. This will entail moving data entry of all landings data to the PSMFC E-tix platform and migration of historical data to a new database built to current technological standards. The MLDS will be completed in three phases, DFW is requesting funding for Phase II of the MLDS project in 2015. DFW has already initiated Phase I, which entails building the interfaces to accept PSMFC data from the E-tix system, and to design the MLDS database.

Requirements for Phase II: DFW will run a competitive Request for Proposal Process with the assistance of the Department of General Services and California Information Services Office. This process will be phased to ensure applicants are well qualified before they are invited to bid, and will seek both testing and final rights to the system. A contractor will develop the editing functionality in MLDS, develop and implement the mechanism to add landing taxes, fish transportation receipts and marine aquaria receipts. The goal of the MLDS project is to implement an electronic reporting system for all 15 commercial fisheries landings receipt types used in California. Phase II requires complimentary funding from the OPC. Phase II requires a contractor to be hired/used in order to develop the editing functionality in MLDS, and to develop and implement the mechanism to add landing taxes, fish

transportation receipts and marine aquaria receipts. OPC will contribute no more than \$750,000.00 to DFW via interagency agreement.

PROJECT FINANCING

Ocean Protection Council	\$985,000.00
○ To OST	\$235,000.00
○ To DFW	\$750,000.00

Staff recommends that the Ocean Protection Council (OPC) provide up to \$750,000.00 to DFW and \$235,000 to OST, to provide foundational funds that will revitalize and update management efforts of our living marine resources. Since there is substantial interest from the philanthropic community and due to the fact that OPC and DFW are well aligned, private funders are ready to make substantial investments as well. Therefore, State funds will also be leveraged as part of a larger initiative to help strengthen the ability of the DFW's Marine Region to meet current and future challenges. The total funding amount recommended for this grant cycle is \$985,000.00.

The funds will come from the Ocean Protection Council's fiscal year 2009-2010 appropriation from 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.

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)(2) as projects which:

- 1) Improve the management of fisheries
- 2) Foster sustainable fisheries
- 3) Improve management, conservation, and protection of coastal waters and ocean ecosystems
- 4) Provide monitoring and scientific data to improve state efforts to protect and conserve ocean/marine resources.
- 5) Science-based decision making

The proposed projects will help to foster improved management of California's fisheries by assisting with implementation of the MLMA, modernizing the DFW's tracking and reporting systems, and updating and filling data gaps necessary to inform fisheries management.

The proposed projects will also help to promote coordination between DFW, the OPC, and the OST. These projects will accomplish this by integrating each agency into the process as well as ensuring that information obtained benefits California's marine resources.

CONSISTENCY WITH THE OPC'S STRATEGIC PLAN

These projects implement Focal Area A: Science-based decision-making; Focal Area B: Climate change, and Focal Area D: Sustainable fisheries and marine ecosystems. Specifically, these projects support successful implementation of the MLMA and will help modernize the DFW's data tracking systems for fisheries, prioritize and select management actions within an ecosystem based management approach and gain better understanding of risks to fisheries associated with climate change.

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:

- 1) Provide needed data to inform management decisions about California's fisheries
- 2) Help implement the MLMA
- 3) Help achieve top priorities for DFW and FGC
- 4) Help to maintain sustainable fisheries over the long term
- 5) Increase coordination between the OPC, DFW, FGC and OST
- 6) Employ an innovative approach problem solving
- 7) Modernize the data tracking and reporting capabilities of the DFW

Required Criteria

1. **Directly relate to the ocean, coast, associated estuaries, or coastal-draining watersheds:** The proposed projects will result in necessary revisions to the Master Plan and obtaining information necessary to manage and ensure sustainable California fisheries.
2. **Support of the public:** Please see attached letters of support (Exhibit 1).
3. **Greater-than-local interest:** The result of these projects are important statewide in terms of developing modern fisheries data records keeping, advance implementation of the MLMA, and integrate adaptive management strategies into fisheries management. The project is relevant to Focal Area D (Sustainable Fisheries and Marine Ecosystems), as well as Focal Area A (Science-based decision making).

Additional Criteria

4. **Improvements to management approaches or techniques:** The end result of these projects will be improvements to management from conducting the necessary research that enables DFW to make informed decisions on the fishery based on current technology and science.
5. **Resolution of more than one issue:** These projects will provide needed scientific information to revise the MLMA Master Plan, update and improve the DFW's records keeping abilities, and help inform management decisions regarding fisheries with the intent of ensuring sustainability.
6. **Leverage:** See the "Project Financing" section above. DFW will be providing staff time and expertise and private funders are contributing, making substantial investments for these projects to be completed.
7. **Timeliness or Urgency:** These projects will modernize the DFW's data tracking and recording capabilities and update the Master Plan to include the latest science and help ready California's fisheries management within the context of climate change.

8. Coordination: These projects will be coordinated efforts between OPC, DFW and the OST, as well as several partners and stakeholders.

COMPLIANCE WITH CEQA:

The proposed agreements do not trigger CEQA as they are not legal projects as that term is defined pursuant to Public Resources code 21068 and Title 14 of the California Code of Regulations, section 15378.