

Scientific Peer Review: Recommendations, Guidance and Best Practices for California Fisheries Management

About this document - This document, prepared by Ocean Science Trust, details the scope and process for Task 1 of the project *Scaling Peer Review for California Fisheries Management*. This document will be made publicly available on the Ocean Science Trust webpage [here](#)¹.

Request

The California Ocean Protection Council (OPC), on behalf of the California Department of Fish and Wildlife (CDFW), has asked Ocean Science Trust to build upon scientific peer review (hereafter, peer review) best practices and provide guidance to the State on peer review as an adaptable tool for ensuring rigorous science is integrated across California's fishery management continuum. This guidance will help support cost-effectiveness, consistency, predictability, and transparency in the implementation of future fisheries peer reviews on behalf of CDFW, including the upcoming Pacific herring and red abalone fishery management plans to be administered by Ocean Science Trust in 2017.

Project Scope

The existing Marine Life Management Act (MLMA) Master Plan for Fisheries (Master Plan) identifies formal scientific peer review as a method to ensure the soundness of scientific information used in making California fishery management decisions. Documents prepared by CDFW staff (e.g., fishery management plans (FMPs), FMP amendments, interim research or management protocols, and marine resource and fishery research plans) must be submitted for peer review. The scope, process, and independence of these reviews have varied widely in the past, and have ranged from individual written reviews to complex panel workshops. Given increasing demands for and complexity of fishery peer reviews in California, CDFW is seeking guidance on ways to formalize peer review practices, building off provisions in the existing Master Plan.

As such, Ocean Science Trust has been tasked with providing recommendations and guidance for planning and conducting peer reviews on behalf of CDFW. Recommendations will focus on highlighting appropriate peer review processes that align with the level and complexity of management efforts outlined by CDFW in the MLMA-based management continuum, with an emphasis on guidance for review of FMPs. Specifically, the peer review guidance will:

1. Summarize scientific peer review best practices that draw on lessons learned from past CDFW reviews, as well as peer review models implemented by federal and international practitioners.
2. Provide recommendations and a suite of review options that align with the Draft Amended Framework for MLMA-based Management.² This may include considering a more flexible

¹ <http://www.oceansciencetrust.org/project/peer-review-and-california-fisheries-management/>

approach as to when peer review might take place within a given management process (early, late, multiple places, etc.), and the development of a decision tree or equivalent tool to guide decision-making about which option(s) to choose in a given circumstance.

3. Provide considerations and guidance on:
 - a. Definitions and characteristics of peer review options, including potential strengths and weaknesses
 - b. the level/type of review process most appropriate for a given work product, including recommendations for a minimum acceptable level of review to meet legal requirements or policy intent
 - c. timing of the peer review process
 - d. when scientific information or documents should be subject to (or exempt from) scientific peer review
 - e. mechanisms that could be used to incorporate stakeholder engagement in the peer review process
 - f. options for implementing different types of peer review in California, taking advantage of existing capacity and expertise

This project scope was developed in consultation with CDFW staff, the MLMA planning team, and OPC.

Process

Timeline: November 2016 – March 2017

This project will take place beginning November 2016 with expected delivery of the final report to OPC and CDFW March 2017.

	2016		2017		
	Nov	Dec	Jan	Feb	Mar
Formal scope and process development <ul style="list-style-type: none"> • Consultation with OPC, CDFW to finalize scope • Develop collateral (website, 2-pager) 	X	X			
Convene SAT consultative group (3-4 experts) <ul style="list-style-type: none"> • Solicit experts from OPC-SAT • Confirm participation • Consultative group call 1 to convene around charge to the group 	X	X			
Conduct assessment <ul style="list-style-type: none"> • OST to conduct literature review • Consultation with SAT Consultative Group and additional experts • Consultative group call 2 		X	X	X	

<p>Develop and release deliverable</p> <ul style="list-style-type: none"> • Develop draft report • Consultative group draft review concurrent with OPC/CDFW review • Consultative group call 3 • Final draft review by OPC staff, CNRA legal team, CDFW staff and MLMA planning team • Final revisions and final 1-week review • Deliver draft to OPC, CDFW; make available online 			X	X	X
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Develop Scope and Process, Collateral Materials

November - December 2016

Ocean Science Trust staff will work closely with Cyndi Dawson, OPC, and Pete Kalvass, CDFW, and the MLMA Planning Team to develop and formalize a review assessment scope, process and timeline (this document). Ocean Science Trust will develop necessary collateral materials, including a webpage for the assessment on Ocean Science Trust’s website ([here](#)), communication materials, and work with OPC and CDFW to disseminate information about this project to appropriate audiences.

Convene OPC-SAT Consultative Group

December 2016

Ocean Science Trust will convene a small Consultative Group of the Ocean Protection Council Science Advisory Team (OPC-SAT) (up to 4 members) that will include OPC-SAT members and additional experts to provide verbal input and guidance throughout the course of this project (see Appendix A). Ocean Science Trust will accept recommendations for members from the OPC-SAT, the California Department of Fish and Wildlife, and the Ocean Protection Council’s own professional network among the academic community. Consultative Group members should have demonstrated knowledge, experience, and skills in one or more of the following areas:

- Fisheries biology, ecology, and social science
- State and Federal fisheries management, policy and law
- Expertise in policies and practices related to peer review and the use of best available science in fisheries management decision-making

Participation will occur remotely via conference calls and webinars, and will include:

- Serving as advisors to Ocean Science Trust throughout the project
- Participating in several conference calls with Ocean Science Trust and other partners to advance the project
- Providing resources, additional contacts and relevant literature
- Reviewing the final report

Consultative group members will receive an honorarium for their participation.

Conduct Assessment

December 2016 – February 2017

Ocean Science Trust will compile resources on peer review, with a focus on applications to California fisheries management under the MLMA. We will draw from:

- Ocean Science Trust’s guide “[Peer Review: Developing Successful Scientific and Technical Review Processes to Advance Science in Marine and Coastal Decision-making](#)”;
- past reviews for CDFW, including review of the spiny lobster FMP and red abalone density estimation methods;
- additional scientific review resources for state and federal agencies; and
- scientific literature on peer review best practices and implementations.

Ocean Science Trust will consult with the OPC-SAT Consultative Group, individuals involved in past FMP peer reviews conducted for the State and other organizations, and representatives from State and Federal fishery review bodies (e.g., the Center for Independent Experts).

Develop and Release Deliverable

January – March 2017

Ocean Science Trust will develop a peer review guidance report for CDFW focused on addressing the elements described in the project scope above. Ocean Science Trust will coordinate with CDFW and OPC throughout the creation of the guidance document to ensure recommendations align with MLMA, California Fish and Game Commission, CDFW and California Natural Resources Agency goals. Early drafts will be sent to OPC, CDFW and other key partners to ensure the format and content align with the requirement laid out in this document.

The OPC-SAT Consultative Group will review the draft product concurrently with Cyndi Dawson, OPC and Pete Kalvass, CDFW. In advance of public release, Ocean Protection Council staff, CNRA legal staff, CDFW staff, and MLMA planning team (as appropriate) will have an opportunity to review the final draft to ensure alignment with current State fisheries laws, policies and regulations. Ocean Science Trust will meaningfully consider and incorporate input received during the review process as the draft is finalized. A final document will be circled within in the review partners for a final 1-week “red flag” review before the document is released or shared publically.

To successfully complete this task, Ocean Science Trust will execute the following communication efforts:

- Deliver the final report to the OPC and CDFW upon completion
- Post the completed report on the Ocean Science Trust webpage and widely distribute to partners and stakeholders via various channels (e.g., press release, blog, webpage updates, listserv announcements and social media posts). Ocean Science Trust will

coordinate with OPC and CDFW on appropriate posting location and provide links to postings on the OST website and OceanSpaces.org.

- Engage with partners to inform the MLMA Master Plan amendment process, as appropriate.

Contact Information

Ocean Science Trust

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About California Ocean Science Trust

California Ocean Science Trust is a boundary organization bringing together government, academics, and communities using science as a gathering point. Though we are not a state agency, our relationship to California is formalized by California Ocean Resources Stewardship Act (CORSAs), passed in 2000. That statute directs how our board is populated, including State agency representation and nominations submitted from both the University of California and California State University. We also submit annual reports to the State Legislature. This unique arrangement gives California an independent partner who can take the long view. Working closely with ocean and coastal agencies, we support California's goal of maintaining a healthy, resilient, and productive ocean for the benefit of current and future generations. On behalf of our partner, the California Ocean.

About the Ocean Protection Council Science Advisory Team (OPC-SAT)

The mission of the OPC-SAT is to ensure that the best available science supports OPC policy and funding decisions. The OPC-SAT, supported by the OPC and managed by the Ocean Science Trust, provides a critical venue to bring agencies and scientists together around pressing ocean challenges. Member engagement occurs in various modes, including via participation in Consultative Groups.

Consultative Groups of the OPC-SAT may be formed to provide verbal or written input and advice around specific issues of interest to the State. They do not produce a written product, rather, they represent a means to engage members on important topics and/or products

generated by others – whether by Ocean Science Trust or state agencies – that would benefit from scientific discussion and guidance. Ocean Science Trust works with Consultative Groups to ensure their role in any given issue or topic area is accurately represented, either via talking points and/or in any product that is generated.

Acknowledgements

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