

MLMA Master Plan Amendment Process

Tribal and Stakeholder Review of Initial Draft Amended Master Plan (October- November 2017)

Table 1. Response to comments received on initial draft of the 2018 Master Plan.

Comment #	Name & Affiliation	Comment Format & Date	Summary of Comment	Response
1	Joe Exline, Recreational Fisherman	Written recommendation to CDFW dated 11/9/2017	A) In Table 1, sport take of CA Spiny Lobster by hoopnet, CA Sheephead, CA Halibut, and White Seabass by hook and line are included. These species are the top target of sport divers by hand or spear but this type of take is not included. Why?	This is a function of having restricted the MRAG analysis to 45 fisheries. Some sectors and species were excluded. The draft currently describes how that list was developed. Text was added on page 17 and a footnote added to Table 1 explaining why all gear types are not included.
			B) It seems odd to include consultant names in this type of document in the text rather than as a footnote. For example, I see Kearns and West and Center for Ocean Solutions referenced in the main text on pages 29-30.	The names of collaborators were removed from the main text and reports and products were cited instead. The names of collaborators were retained in appendices.
			C) In the first paragraph on page 42, "limiting bycatch to acceptable types and amounts (§7056(c))," should be "limiting bycatch to acceptable types and amounts (§7056(d))".	FGC §7056(c) was updated in the text to reflect the correct code section of §7056(d).
			D) When determining the overall impact of fishing on habitats, would recommend updating this section (pages 48-50) to consider those habitats/areas protected from fishing gear impacts in/as a result of Marine Protected Areas (MPAs). MPAs are mentioned as an effective way to protect habitat, however there does not appear to be any reference to the effects of areas protected by MPAs. Why is this not mentioned or considered in this section?	The impact of MPAs currently in place is considered in the assessment of threats. Text was added to make this more explicit.
			E) Chapter 6 seems a little out of order. I suggest the text follow the order of the FGC code sections of the three specific objectives described in the MLMA: conserving ecosystem health and diversity (§7050(b)(1)), maintaining habitat health (§7056(b)), and limiting bycatch to acceptable types and amounts (§7056(d)).	No action taken. Given the complexity of the bycatch issue and the focus it has received from the Bycatch Working Group, it is appropriate for it to be placed first in this chapter.
2	Group submission: Greg Helms, Seth Atkinson, Paul Shively, Sarah Sikich from Ocean Conservancy, Pew Charitable Trust, Heal the Bay, and Natural Resources Defense Council	Written recommendation to CDFW dated 10/10/2017	A) Recommendation 1.4 from the OST report is to evaluate the vulnerability of managed fish stocks. This recommendation should be a top priority for CDFW. CDFW should partner with NOAA to Conduct Climate Vulnerability Assessments (CVAs) for California stocks.	Text was added to Chapters 2, 3 and 11 that references the value of CVAs and their potential use as a tool to inform ESRs and FMPs.
			B) The results of a climate vulnerability assessment for California-managed species can and should be integrated into the risk assessment structure proposed in the draft MLMA framework. The draft framework currently uses Productivity-Susceptibility Analysis (PSA) and Ecological Risk Analysis (ERA) to evaluate the risks in each fishery. We recommend incorporating climate vulnerability assessment as an additional tool to be used in this first-round evaluation of fisheries.	No action taken. Please see response to Comment 2A.
			C) Recommendation 1.3 from the OST report is to manage for population structure. This should be a centerpiece of CDFW's management for climate-vulnerable species. CDFW can enhance fish stocks' resilience by using management measures that maintain and strengthen the reproductive capacity of fish populations. Ensuring a diverse age structure is a recommendation for a specific type of management approach. As such, it is probably best located in the "management scaling component" portion of the draft MLMA framework, and particularly in the step currently entitled "what should management strategies be?" The Data-Limited Toolkit uses an age-structured operating model and can evaluate the effects of changing age structure in a population, to the extent it affects model outputs such as long-term average biomass and yield levels.	This recommendation was addressed in Chapter 11 and text was added to Chapter 5 under management measures.
			D) Recommendation 1.2 from the OST report is to apply the precautionary principle in stock management. This means stocks assessed to be of greater climate vulnerability should receive one or more forms of additional management precaution. Applying precautionary buffers to climate-vulnerable species is a management strategy and should be addressed at the "what should management strategies be?" step of the draft MLMA framework. For climate-vulnerable species, we encourage CDFW to specify one or more possible climate-vulnerability buffer approaches prior to running the Data-Limited Toolkit, and to add these custom management procedures to the Toolkit to the extent possible. The specific degree of climate resilience created by a particular increase in biomass should be evaluated through expert opinion, and treated as a qualitative performance metric when selecting a management procedure.	No action taken. Chapter 11 includes a section on applying a precautionary approach to management. The need for additional management precaution should be evaluated on a case-by-case basis. Given the wide range of approaches that can be taken, it is unreasonable to attempt to pre-select a subset of buffer approaches to include in analyses.

2, continued			<p>E) CDFW should consider using specific climate-responsive management strategies for fisheries that have been determined to be particularly vulnerable to climate change, as suggested in Recommendation 3.1 of the OST report. This means managing a fishery in a way that is dynamic and responds to changing conditions. One type of dynamic management involves integrating ecosystem indicators into harvest control rules. Establishing a connection between a species' productivity (or other characteristic) and an ecosystem indicator can be difficult, and Recommendation 3.5 in the OST report discusses the extensive research and monitoring necessary to establish these linkages. A different type of dynamic management involves responding to changes that are internal to the stock. Harvest control rules can be designed that adjust fishing pressure in response to a stock's biomass level, or distribution, or some other attribute of the stock. Dynamic harvest control rules are a management strategy, and fall clearly in the "what should management strategies be?" step of the draft MLMA framework. It may be possible to evaluate these control rules with the Data-Limited Toolkit, to the extent the control rule's independent variable is part of the Toolkit's operating model. When it is not possible to evaluate a climate-responsive management strategy through the Toolkit, we recommend CDFW still give it consideration, even if this means evaluating it in a qualitative manner independent of the Toolkit.</p>	Please see response to Comment 2C.
			<p>F) One of the broad approaches identified in the OST report is to manage fisheries for social resilience. Social and economic resilience should be a goal for CDFW in managing fisheries to be ready for climate change. We recommend CDFW conduct several reviews at a relatively high level (i.e., not limited to a particular fishery or FMP) and consider their implications. First, CDFW should evaluate permit transferability in California fisheries, including how permits are retired and how new permits are issued. Second, CDFW should evaluate the gear switching potential in California fisheries. Third, CDFW should evaluate the potential of creating a fisheries insurance program—including both policy design issues and feasibility considerations. Recommendation 2.3 from the OST report mentions this idea and provides background references; we agree it is a topic that merits investigating. Once CDFW is ready to consider making changes in specific fisheries, those changes should be considered in both the prioritization component (likely the economic opportunities section) and in the management scaling component (both in evaluating management strategies and in writing the relevant scaled management document) of the draft MLMA framework.</p>	Text was added to Chapter 11 on permit analysis as a potential tool to use in the current permit flexibility subsection.
			<p>G) The California Fish & Game Commission's Emerging Fisheries Policy provides criteria that CDFW should follow in identifying when a previously unfished stock is becoming an established fishery, and what additional or new measures are needed to manage the fishery effectively. CDFW should consider fleshing out the Commission's Emerging Fisheries Policy by laying out a clear, science-based pathway for evaluating, experimenting and permitting such fisheries. This permitting framework should be designed with the goals of fleet flexibility, agency workload and capacity, and above all, resource sustainability. CDFW should include clear mechanisms to protect against overly-rapid exploitation, when designing this permitting framework. This recommendation appears to fall outside the draft MLMA Framework, and may best be incorporated into CDFW's 5-year work plan. CDFW should consider species undergoing range shifts when evaluating management strategies and creating scaled management documents under the draft MLMA framework. CDFW should lay out a framework for identifying declining fishery situations and applying specific ramp-down harvest policies. This framework should be articulated in a higher-level policy document, and potentially added to CDFW's 5-year work plan.</p>	No action taken. This is a recommendation that may be considered during implementation.
3	<p>Group submission: Greg Helms, Paul Shively, Jocelyn Enevoldsen, Geoffrey Shester, Anna Weinstein, and Seth Atkinson from Ocean Conservancy, Pew Charitable Trust, Natural Resources Defense Council, Audubon California, and Oceana</p>	<p>Written recommendation to CDFW dated 11/9/2017</p>	<p>A) We recommend that the Framework for MLMA-based Management ("management framework") to focus, streamline and guide management action under the Master Plan is approved and implemented. We offer a statement of support for the goals and objectives of the management framework.</p> <p>B) We recommend the development of a set of implementation guidance appendices, tailored to each of the four management scales proposed in the initial draft and to a range of data-availability categories. Such scaled management guidance appendices must: 1) identify management benchmarks and control rules appropriate at each management scale that track and adjust measures to, for example, prevent overfishing, determine if a stock is overfished, and prevent and account for catch overages; 2) identify management benchmarks and reference points for determining stock status applicable to data-rich, data-moderate, and data-poor stocks; and 3) identify applicable harvest control rules, "traffic light" arrangements, and triggers for action in the case of unmet management objectives.</p> <p>C) We recommend that CDFW apply the full suite of assessment tools to California fisheries during prioritization. The ecological risk assessment (ERA) and the MLMA-based assessment framework (the "assessment framework") are essential and equally important to efficiently raising management of California fisheries to MLMA standards. Our groups are supportive of having the assessment framework occur within the defined scaled management action step in the flowchart in order to continue the momentum of adopting a revised Master Plan. However, we urge the Department and the Commission to ensure that the application of both types of assessments in the scaled management process carefully evaluates the consistency of existing management measures with MLMA objectives for target stock sustainability, bycatch, and habitat without undue regard to pre-existing management measures.</p>	<p>Support noted. No action taken.</p> <p>No action taken. As opposed to separate appendices on each, the draft's overall approach is to describe the levels of scaled management in Chapter 3 and then consider how specific issues may be addressed at each level.</p> <p>Comment noted. No action taken. Given the high degree of overlap with the ERA, the assessment framework is not proposed to be used as part of prioritization, but the draft recognizes its value in informing ESR and FMP development and as a progress tracking tool.</p>

3, continued			<p>D) To ensure efficient and effective implementation, we recommend that the Department create an implementation plan for undertaking ESRs for all fisheries and make it clear that ESRs must serve to either trigger the next step or conclude the action for that fishery. The recommended outline of ESR contents appears to support reporting whether the key MLMA management requirements (e.g. criteria for determining overfishing, role of and threats to habitat) are accounted for or missing. However, we urge the Plan be revised to make it clear that the completion of an ESR for a fishery also requires identified management deficiencies to be addressed through implementation of new management measures, either in rulemaking or under basic or complex FMPs. ESRs must articulate minimum standards of MLMA-based management and then also prompt action to achieve them.</p>	<p>No action taken. ESRs include sections on management and research needs and next steps. They also describe whether key MLMA management requirements are being met, and if not, why this is the case. Some ESRs may identify management deficiencies that are low on the priority list to address. Nevertheless, their identification is an essential step in making informed decisions regarding how and where to direct management efforts.</p>
			<p>E) The Stock Sustainability Objectives chapter and appendices F-I provide extensive treatment of stock sustainability approaches, and useful raw material that can support a planning framework for management. We urge that the Department develop scaled management guidance appendices to tailor guidance to implement the Master Plan in scaled management action by organizing and identifying stock sustainability measures and rules appropriate for each management vehicle (e.g. ESRs, rulemakings, and FMPs) and for each of the broad categories of data availability for California fisheries. We look forward to discussing this recommendation with the Department as the draft Master Plan process unfolds.</p>	<p>Please see response to Comment 3B.</p>
			<p>F) Chapter 5 and Appendix F contain an overview of the different types of data relevant to fishery management. We recommend additional discussion that describes what type of EFI is needed to support and guide the different management strategies discussed in the initial draft. This discussion should clarify how management strategy choices drive the monitoring programs needed to support them, and how monitoring needs can help better frame and inform these choices. In addition, we recommend the Department develop standardized information architecture for data collection, for both processed and unprocessed data. Standardized EFI reports should be developed for each stock and a standardized database should be built so that California's fisheries data shares a common format across stocks. We also recommend adding a discussion in the draft Plan of data sharing between the Department and other agencies. Specifically, the Department should ensure that when other agencies gather relevant information, this information makes it into the Department's standardized database.</p>	<p>Please see Appendix I for a discussion of management measures and associated information needs. Additionally, please see Appendix J for a discussion of MSE and navigating related management strategy choices. Text regarding the value of standardized data collection and development of a standardized database was included in Chapter 5 and Appendix F.</p>
			<p>G) We recommend editing the text on page 38 and the final paragraph of Appendix G to more clearly explain the role that MSE can play in guiding the choice of assessment method for a particular fishery. Specifically, on page 38, the third bullet point should be moved down to become the topic sentence of a new paragraph following the bulleted list, which should explain how managers can go about determining an appropriate assessment and management method for a given fishery. This new paragraph should explicitly note the existence of MSE tools, such as the DLM tool, which can and should be used in both data-rich and data-limited fisheries to evaluate which assessment methods are most appropriate. Similarly, the last full paragraph of Appendix G should get an expanded discussion of the factors that may be relevant to the choice of assessment/management method, such as life-history characteristics, stock productivity, fishing fleet characteristics, data quality (i.e., observation and implementation error), and data availability. The final paragraph of Appendix G also should clearly recognize the importance of MSE in providing a transparent, quantitative, and reviewable process for deciding which data-limited methods to use for a particular fishery.</p>	<p>Text was added to Appendix G. Please also see Appendix J.</p>
			<p>H) Chapter 5 and Appendix H provide an important discussion on the role of reference points and harvest control rules in avoiding ad-hoc management and politicized decision-making. We recommend revising Appendix H to more clearly identify how limit reference points defining "overfished" or "depleted" are to be set, as well as target reference points and precautionary management zones.</p>	<p>No action taken. Given the diversity of vertebrate and invertebrate species under state management, the approach to setting limit reference points will depend on the nature of the species.</p>
			<p>I) Chapter 5 and Appendix J explain simulation modeling and its relevance to stock assessment and management strategies. We suggest the language of Chapter 5 and Appendix J be careful to distinguish when the intent is to indicate simulation modeling in particular, or simulation modeling-based MSE, versus when the intent is to indicate MSE more generally. We also recommend revising Chapter 5 and Appendix J to explain that MSEs should be revisited periodically, as available information or management objectives change. For each fishery, the Department should define specific conditions that trigger an update of the MSE, including re-running simulation modeling as needed. In addition to predefined conditions that trigger an update of the MSE, the Department should set a maximum length of time (such as 5, 7, or 10 years) that can elapse before the MSE must be updated. As a final note regarding MSE and simulation modeling, the statement on page 41 that the DLM tool is one of "many similar tools that have been developed" to conduct MSE is inaccurate. Currently there are no other open-source platforms for conducting simulation modeling-based MSE in the data-limited context. We recommend the text on page 41 be revised accordingly.</p>	<p>Text was added to Appendix J that identifies 5 years as a general target for revisiting MSEs.</p>
			<p>J) With respect to bycatch, we approve broad provisions, suggest including select non-consensus provisions, and recommend a clarification of the treatment of incidental catch. We request the draft Plan make explicit how such "incidental catch" would be accounted for and managed, as compared with management requirements of targets as traditionally defined. We also request clarification regarding whether incidental and primary targets would be treated together or under separate timelines and processes when a management vehicle is developed. Our recommendation is that it be made clear that "incidental catch" species are managed under the full suite of management requirements and standards for target species, and that, at a minimum, the stock sustainability provisions of Chapter 5 are fully applied. In either case, we urge that the draft Plan be revised to be more explicit on this important issue.</p>	<p>Changes made to Chapter 6.</p>

3, continued			<p>K) We urge the inclusion of the following additional bycatch inquiries in the Master Plan: 1) Evaluation of overall cumulative impacts to bycatch species' population sustainability and functional role within the ecosystem, not just the impacts of one individual fishery; Comparison of bycatch and discard rates across gear types used to target a given species. 2) Specific tools available to assess vulnerability of bycatch species where assessments are lacking. 3) More robust quantification of the economic impacts on other fisheries. 4) Clear identification of methods to determine the ecological role of bycatch species and the effects of fishing on those ecological roles; 5) Better integration of ecological risk assessment and productivity/susceptibility analysis in evaluating the risks posed by a fishery to bycatch species. Lastly, we request that the Master Plan clarify that the bycatch inquiry, and measures to implement it to minimize unacceptable bycatch, is to occur in management actions under each scaled management vehicle, including ESRs and FMPs. As indicated above, we urge that additional operational guidance be provided regarding use of these tools to minimize unacceptable bycatch under different fishery scenarios.</p> <p>L) We encourage the Department to seek partnerships and leverage the efforts of federal partners to assess the vulnerability of California stocks to target climate-based management attention where it will provide the greatest impact and benefits.</p> <p>M) We appreciate and support the "Maintaining habitat health" section of the Draft Master Plan in Chapter 6. However, we note (1) that the inquiries are limited to the habitats used by the target species. In many cases, a fishery may impact habitats important to other species than the target species; therefore, Step 3 of this section should be expanded to identify potential impacts to all marine habitats; (2) the Master Plan should prioritize the habitat types that are widely recognized to be sensitive to fishing and non-fishing impacts; (3) additional guidance should be provided for determining whether adverse impacts to habitat are occurring and whether additional management measures are warranted; (4) lastly, Step 3 also appears to be limited in scope to impacts caused by the fishery. However, other fisheries or non-fishing activities may also damage habitats utilized by the target species of the fishery. This section should also include guidance regarding how to address non-fishing impacts.</p> <p>N) We believe forage species should be called out specifically in their own brief section in Chapter 6. This section could summarize these recent policies and regulatory approaches, and describe strategies for progressively incorporating forage concerns into management, for example, building off lessons learned thus far in the Pacific Herring FMP collaborative effort.</p> <p>O) We appreciate the draft Master Plan provisions providing criteria to better tailor external peer review for the scientific and technical aspects of fishery management. Given the additional tools such as MSE and the DLM Toolkit, we recommend the Department assess expertise and capacity to employ emerging management tools and seek partnerships and resources to secure them.</p>	<p>Regarding the inclusion of additional criteria, the draft includes the criteria identified by the Bycatch Working Group. Regarding the use of the inquiries in the development of ESRs and FMPs, language was added to Chapter 6 that makes this explicit.</p> <p>Comment noted. Please see response to Comment 2A.</p> <p>No action taken. Regarding (1), the MLMA is focused on identifying and addressing threats to the habitat of the target species. Regarding (2), this is beyond the scope of the draft amended Master Plan. Regarding (3), Chapter 6 provides guidance on identifying adverse impacts. If there is specific guidance being sought, please offer it for consideration during the upcoming public review and comment period led by the FGC. Regarding (4), step 3 of the habitat section is focused on minimizing impacts from fishing because that is the focus of §7084.</p> <p>No action taken. Chapter 6 includes a paragraph on forage species.</p> <p>No action taken. This is a recommendation that may be considered during implementation.</p>
4	Hallie Templeton, Friends of the Earth	Written recommendation to CDFW dated 11/9/2017	We urge the Department to place a high priority on the MLMA's conservation goals, and in doing so, refrain from developing industrial ocean fish farming in the State as part of this, or any, MLMA Master Plan. Permitting industrial ocean fish farming in California's waters cannot be reconciled with these important conservation policies such as Section 7050(b)(7). We also request that the Department refrain from improperly classifying these underwater factory farms as fisheries or fishing activities.	No action taken. This recommendation is outside the scope of the draft amended Master Plan.
5	Michael Bell, The Nature Conservancy	Written recommendation to CDFW dated 11/9/2017	<p>A) Unfortunately, in its current form, the draft Master Plan lacks some of the vision and specificity required to take a significant step past status quo approaches in state fisheries.</p> <p>B) As drafted, the Master Plan does not convey a firm commitment to addressing climate-readiness in fisheries. We strongly encourage CDFW to incorporate the recommendations provided to the Department in the OPC-SAT report on Climate Change and California Fisheries into the Master Plan. There is a strong need to elevate messaging around climate-related challenges to management throughout the text of the Master Plan, as CDFW updates this document to reflect new priorities and emerging management strategies for better achieving the MLMA's goals. We recommend that CDFW include the following definition for climate-ready fishery (or rephrase as climate readiness) in the Master Plan glossary: "A responsively managed fishery that utilizes expanded data collection from diverse sources, proactively incorporates climate information into management actions, and practices adaptive decision-making in collaboration with partners." This concept should be more readily incorporated into text beyond treatment of climate change in Chapter 11, with more pointed guidance on strategy implementation and utilization of more decisional language such as 'shall' or 'will'. We recommend that key fields be included in the Enhanced Status Reports that are specific to climate readiness, including: impacts to habitat and predicted changes in abundance and distribution; ecological and socioeconomic vulnerability of fish species, fisheries, and communities; potential new data streams and key data gaps; and opportunities for partners to advance climate science needs. Additionally, CDFW should adopt the following strategies to promote climate readiness: expanded collection of near-real time data, evaluation of permit structure for flexibility to climate impacts, and review of potential partners to proactively lead experiments.</p>	<p>Comment noted. No action taken. The draft amended Master Plan is not intended to be prescriptive, but rather to serve as a guiding document and toolbox.</p> <p>'Climate readiness' was added to the glossary. Chapter 11 includes recommendations from the OPC-SAT report on Climate Change and California Fisheries. The draft amended Master Plan is not intended to be prescriptive, but rather to serve as a guiding document and toolbox. The ESR and FMP outline includes a 'climate readiness' section. Strategies to promote climate readiness are identified in Chapter 11.</p>

5, continued			<p>C) CDFW should prioritize work to advance partnerships whenever possible and generate clearer guidance on this process in the Master Plan. We recommend that CDFW make discussions of collaborative fisheries research (CFR) more prominent, as it is critical to generating the research and monitoring data that is needed for cost-effective fisheries management. Currently, any mention of CFR is included exclusively within Appendices E and J. Collaborative fisheries research can be better incorporated into the spectrum of management tools – from Enhanced Status Reports to full Fishery Management Plans. Under this approach, CDFW should clearly identify and effectively disseminate information on key research gaps, and then potential partners can organize capacity and resources to begin problem solving around priority issues.</p>	Text was added to Chapter 3 and 8 to highlight the importance and value of partnerships and CFR. One of the goals of the ESRs and online fisheries portal is to effectively disseminate information on our state-managed fisheries as well as clearly identify research and knowledge gaps that would help to promote partnerships and CFR.
			<p>D) We recommend that CDFW remove language that provides opportunities to stray from use of best management practices, such as MSE, which has been used successfully to improve the performance of a range of commercial and recreational fisheries around the world. There are several instances in Chapters 4, 5, and Appendix J in which such language should be removed. Instead of reiterating that MSE is complex and that extensive time and resources are required to conduct them, language should be added which emphasizes that collaborative fisheries research, partnerships, and expert peer review would provide a suitable framework through which to leverage the quantitative expertise required to increase feasibility to conduct MSE across a wider range of fisheries.</p>	Text was added to the MSE section in Chapter 5 that highlights that CFR and partnerships are useful tools to increase capacity and expertise for conducting MSE. The value of expert peer review in this context is discussed in Appendix J and Appendix O.
			<p>E) While prioritization of future management actions should consider key climate-related and socioeconomic inputs, the tool used for prioritization within the Master Plan does not specify how to incorporate such information. We recommend that CDFW incorporate such factors and evaluate the interim priority list in the light of its current time and resource allocations to existing management challenges. Moving forward, the ecological risk assessment tool must allow for the incorporation of climate change information to better address ecosystem concerns and the social and economic ramifications of climate change.</p>	Text was added to Chapter 3 and 11 that references the value of CVAs and their potential use as a tool to inform prioritization as well as ESRs and FMPs, as resources permit. The ESR outline includes a 'climate readiness' section. The ERA approach selected purposely excluded climate in order to focus on the risks that CDFW can address.
			<p>F) We encourage CDFW to work diligently to incorporate all comments received during this public comment period, as well as to revisit the original content provided during stakeholder meetings and in stakeholder-generated publications and reports. We must take every opportunity in the Master Plan to articulate clear commitments and strong guidance on how to incorporate the best management practices and available science to mitigate these impacts. In this way, the Master Plan can serve as a beacon, allowing California to lead a new vision for conserving and managing resources in a changing ocean.</p>	CDFW has considered all public comments and revised the draft amended Master Plan to reflect new information and diverse perspectives and expertise.
6	Lucie Hazen and Elodie Le Cornu, Center for Ocean Solutions	Written recommendation to CDFW dated 11/9/2017	<p>A) The placement of the MLMA-based Assessment Framework (AF), as a means to address "What should management strategies be?" doesn't seem to be the best fit. The MLMA-based AF does not answer that question. Rather it's designed to evaluate implementation of the MLMA, and identify areas of high vs. low consistency. It is intentionally not prescriptive. In previous drafts of this overall management framework, this tool was slated to instead answer the following: "Are those [ecological] risks addressed?" That particular question is important but appears to no longer be an explicit part of the prioritization process. That's a concern.</p>	No action taken. The question "are those ecological risks addressed" is embedded in the ERA. Therefore, the AF is not included as part of the prioritization process because it would be redundant with the ERA. The AF however is an important tool that may help to inform the development of ESRs and FMPs.
			<p>B) The omission of the stakeholder engagement toolkit as a clear option available for improving management is unfortunate, particularly given the acknowledged importance of stakeholder involvement in "all areas of management" (page 1). The overview provided in chapter 4 is a good start but does not provide sufficient guidance or reference the publicly available web version of the toolkit. (It appears that this work is currently only listed among the Partnerships in Appendix B.)</p>	No action taken. The information learned during the development of the stakeholder engagement toolkit, including the key questions and process steps, was useful and incorporated into Chapter 4.
			<p>C) Appendix B describes the MLMA-based AF as a "tool...developed and tested to help assess the degree to which the management of six fisheries is consistent with the provisions of the MLMA." We suggest 2 corrections: 1) We piloted the AF on nine fisheries (see table in comment letter), but more importantly 2) the AF was developed to assess the degree of MLMA consistency for any CA-managed fishery, and tested on nine fisheries to iteratively co-develop the framework into a robust tool.</p>	Text was revised to reflect the recommended language.
			<p>D) We find that the non-consumptive objective (i.e. "Marine life need not be consumed to provide important benefits to people, including aesthetic and recreational enjoyment as well as scientific study and education") is still underdeveloped in the Master Plan Amendment. The previous Master Plan stated: "The ability to assess the impacts on non-consumptive users as a result of a fishery or an FMP needs to be addressed in future FMPs. Further clarification and guidance on the issue is necessary. Once again, as clarification is made, it will be incorporated into the Master Plan and FMPs." (Pages 2-14, Section 2.5.6).</p>	Language regarding non-consumptive uses was added to Chapter 7.
7	Bycatch Working Group commissioned by the Fish and Game Commission	Written recommendation to CDFW dated 10/19/2017	<p>A) Page 42: Because "incidental catch" is granted its own definition under the amended Master Plan, BWG members request addition of clarifying text about how incidental catch would be managed to sustainability standards, if not managed as bycatch. Will it be managed as target species according to chapter 5 sustainability standards?</p>	Language added to Chapter 6 to address this comment.
			<p>B) Page 43 (final paragraph, following definition of discretionary and regulatory discards): "As noted in Step 3 below, discarded catch may be returned to the sea alive, or dead or dying." While all discards are defined as bycatch (§90.5), the discard of live catch may not pose a risk to a bycatch species, so it is important to assess the mortality rate to evaluate impacts. Support the addition of language calling out that in some cases discards are desirable when it is by design, when conservation benefits are achieved, namely where survival rates are high (e.g. catch and release, or management measures designed to provide release of live fish). Example text: the discard of live catch may not pose a risk to a bycatch species, [add text here about "and is often designed as a management strategy to protect some individuals (e.g., juveniles, sex- specific) in which survival is expected to be high."].</p>	Language added to Chapter 6 to address this comment.

7, continued			C) Page 43, Step 1. Collection of information on the amount and type of catch (second sentence): "Some fisheries require state or federal observers or electronic monitoring to record catch data." Suggest adding text that "...and some recreational fisheries participate in voluntary State observer programs (e.g., CPFV samplers)."	Language added to Chapter 6 to address this issue.
			D) Page 44, Step 2. Distinguishing target, incidental, and bycatch species. "It is important to note that in some situation target or incidental catch species of the wrong size, sex or condition may be discarded and become bycatch per the MLMA's definition. Differentiating target species from incidental catch and bycatch species is not always obvious (e.g. recreational "catch and release" species)." The BWG suggests reiterating language that speaks to the condition of the discarded species, emphasizing again that it is only the dead discards that have negative impacts on the resource.	No action taken. Text added to respond to Comment 7B addresses this comment without introducing redundancy.
			E) Page 45, Step 2. Distinguishing target, incidental, and bycatch species: Suggest that additional "questions" or "criteria" be included here as an additional means to help distinguish target, as listed in BWG recommendations report. Suggest option of adding inquiries asking (1) whether the incidentally caught species is being managed as a target species meeting criteria for an "established fishery," under another FMP, or under other state or federal laws or regulations, and if not, (2) either specify to manage according to 'target' standards or 'bycatch' standards. " Alternately, some support the text as drafted, to provide flexibility to address specifically within individual FMPs (e.g., kellets whelk in lobster FMP).	Language added to Chapter 6 to address this comment.
			F) Page 45, Step 2, Criterion 2: "...tools such as ERA may help provide useful guidance..."Suggest modify to "tools such as ERA may eventually help provide useful guidance..."	No action taken. The ERA has evolved considerably to incorporate stakeholder knowledge, expertise, and constructive feedback since it was first shared with the public in June 2017. The tool will continue to be refined as necessary as part of the Department's approach to adaptive management.
			G) Page 47, Step 3, Criterion 3: "Factors to consider may include increasing competition between fleets that target certain species, by capturing species managed under federal rebuilding plans, or by increasing mortality of juveniles targeted by another fishery." Suggest moving much of last sentence text into inquiries, as modified by the following additions: 1) "Is the species constrained under a federal rebuilding plan and will bycatch compete with fleets that target it? 2) Is the bycatch increasing mortality of juveniles of a species targeted by another fishery?"	Text was moved to be a manager inquiry.
			H) Page 46, Suggest moving this sentence to be a manager inquiry: "This criterion considers whether the current level of bycatch within the fishery negatively impacts the management of another fishery or the fishermen that target the fishery resource."	Text was moved to be a manager inquiry.
			I) Page 46, Suggest adding additional inquiries: 1) "Has the bycatch and associated discard mortality been accounted for? Is this affecting the directed fishery management strategy (i.e. restrictions on size, sex, or season)?"	Additional inquiries were included.
			J) Page 47, Step 3. Criterion 4 - Ecosystem impacts (inquiries): Inquiry 1. "What is the ecosystem role of the bycatch species: keystone, habitat forming, top predator, basal prey, other?" Add text to clarify that it is the portion of the bycatch species that is dead discard that should be evaluated for this.	No action taken. This inquiry is about the role of the species, which is unrelated to the condition of discards.
			K) Page 47, Step 3, Criterion 4- Ecosystem impacts (inquiries): Inquiry 1 terms: "keystone, habitat forming, top predator, basal prey, other". BWG recommends that the terms "ecosystem role", "keystone species", "habitat forming", "top predator", and "basal prey" should be defined here or added to the glossary, and that context is provided for how they pertain to their "ecosystem role." Also, for "ecosystem role", may suggest reference to available tools, as other sections do (e.g., PSA, ERA).	Changes were made to the text that avoided the use of these terms.
			L) Page 47, Step 3. Criterion 4 - Ecosystem impacts (inquiries): "2. Does scientific evidence show the amount of bycatch significantly increases the risk that a bycatch species will be unable to serve its ecosystem role?" Suggest adding "mortality" between "bycatch and "significantly." Suggest that a reference be included to available tools, consistent with other sections of the document.	Text was modified to address this comment.
M) Page 47. Suggest adding the following additional inquiry: "Is the fishery causing a species to have its functional role within the ecosystem impeded?"	No action taken. This is addressed by the preceding inquiry in Chapter 6.			
8	Mike Conroy, West Coast Fisheries Consultants	Written recommendation to CDFW dated 11/8/2017	A) In the Executive Summary on Page 8, I suggest inserting the word "scientific" between "available" and "information" to match the Fish and Game Code ("Code").	Text was modified to address this comment.
			B) I would recommend adding "Enhanced Status Reports (ESRs)" to the glossary. I think it important to clarify that ESRs are not management documents, but rather informative reports on the status of a specific fishery and/or stock. FGC §7070 makes it very clear that "the state's fisheries be managed by means of fishery management plans." I think an argument can be made, based on the plain language of §7070, that ESRs are not for management purposes. Perhaps ESRs can fill the requirement of §7073(b)(3) which states the Master Plan shall include, "A description of the research, monitoring, and data collection activities that the department conducts for marine fisheries and of any additional activities that might be needed for the department to acquire essential fishery information."	ESR was added to the glossary. The management continuum is built upon the premise that not all fisheries will undergo an FMP. The legislative declaration in FGC 7070 is precatory and does not impose substantive requirements. By contrast, FGC 7072 states that FMPs be the "primary basis" for management, not that all fisheries must be managed by an FMP. FGC 7083 further recognizes that conservation and management measures can exist independent of an FMP.
			C) In Chapter 1, add in "where feasible" between "and" and "restoration" to match the Code's language. Otherwise, I would argue the language in the Master Plan includes a requirement (ensure without regard to feasibility) that isn't supported by the Code.	Text was modified to address this comment.
			D) In Chapter 1 on Page 11, Principal Strategies- Status of the Fisheries Report, the requirement regarding effectiveness of management is described in §7066(c) – not §7065.	Text was modified to include both FGC codes.

8, continued			E) I think the role of the Master Plan (as defined in §7073) is overstated in Chapter 1 on Page 11. Under the Statute, the Master Plan “specifies the process and the resources needed to prepare, adopt, and implement fishery management plans for sport and commercial marine fisheries managed by the state.” I would suggest rewording as follows, “The Master Plan serves as a roadmap for preparation, adoption and implementation of FMPs as required by the MLMA.”	No action taken. One of the key improvements of the draft amended Master Plan is that it provides a roadmap for fishery management beyond FMPs.
			F) While I appreciate that the discussion of MPAs in Chapter 1 on Page 14 is limited to MPAs created under the Marine Life Protection Act, I think some mention of other areas within state waters that are closed to certain fishing activities bears mentioning. For example, certain commercial fishing activities are not allowed in Santa Monica Bay nor the front side of Catalina Island. Perhaps the existence of these additional closed areas could be briefly mentioned here and more fully developed in Appendix P.	Text was modified to address this comment (please see response to Comment 1D) and Appendix P includes acknowledgement of these other types of MPAs.
			G) Regarding Chapter 2, Page 15: While I appreciate the long-term need and desire for the PSA tool, I question its readiness for use. I attended the two workshops introducing the PSA and ERA tools and some of the results were concerning to those of us who are commercial and recreational fishermen since inputs into the model were not derived following a collaborative exercise with industry and other interested persons. The suggestion here is not to remove the references to the PSA, but rather acknowledge that it is still under development and refinement.	No action taken. It is not anticipated that the PSA will undergo further development at this time. Future efforts will be focused on applying the ERA to remaining species and developing a comprehensive priority list.
			H) The same concerns I have regarding PSAs are equally applicable to the ERA tool. The Ocean Science Trust implicitly acknowledges there is room for improvement in its Report entitled 'Ecological Risk Assessment as a Prioritization Tool to Support California Fisheries Management.'	Please see response to Comment 7F.
			I) In Chapter 2, regarding the consideration of emerging and emergency issues when implementing priorities, there is a reference to §11346.1(b). There is no such section in the Fish and Game Code, so I assume this is from the Government Code related to the adoption, amendment and/or repeal of an emergency regulation.	This is correct.
			J) I would like to see text added that takes into account potential economic harm to fishery participants and/or dependent fishing communities in Chapter 2's consideration of emerging and emergency issues when implementing priorities. For example, “Does the proposed new priority result in economic hardship to fishery participants and/or dependent fishing communities? If so, how?” This incorporates the objective that “The adverse impacts of fishery management on small-scale fisheries, coastal communities, and local economies are minimized.” See - §7056(j).	No action taken. These questions are intended to help determine what issues should become new priorities for management attention rather than how those issues should be addressed.
			K) As previously mentioned, I question whether fisheries can be managed under an ESR. Figure 2 on Page 22 seems to imply that ESRs do have some role in the management of State fisheries. Some of the items contained in the proposed ESR outline cross into a management function which could run afoul of the MLMA's requirements that all State fisheries be managed by a FMP. Figure 3 (Page 27) confirms that at least some management is contemplated under an ESR. I believe some clarity would be helpful in the document.	No action taken. Please see response to Comment 8E.
			L) I don't think enhanced status reports plus focused rulemakings is allowed under the MLMA, described in Chapter 3 on Page 24. The MLMA requires “state's fisheries be managed by means of fishery management plans”. An ESR plus tailored rulemaking to address relatively minor or discrete issues amounts to management and is required, by statute, to be done under a FMP.	No action taken. Please see response to Comment 8E.
			M) I would recommend adding the following bullet points to the list of complexity criteria: 1) Fishery demographics, 2) Sources and quality of information on which to base management, 3) Mobility of the fishery, 4) Number of participants, 5) Cross-border management.	Text was modified to address this comment.
			N) The MLMA (§7059(b)(3)) requires the Commission and Department to “consider the appropriateness of various forms of fisheries co-management, which involves close cooperation between the department and fishery participants, when developing and implementing fishery management plans.” This should be mentioned in Chapter 4.	Text was included. This information is also included in Chapter 8.
			O) The introductory paragraph of Chapter 4 references stakeholder input and review. What consumptive stakeholders were contacted and asked to participate in the review and input process for this Chapter? I have asked quite a few and no one has any recollection of being asked to participate.	Kearns and West interviewed a number of participants, and text has been added to Appendix E that describes the sectors participants represented.
			P) Regarding key stakeholder engagement principles and guidance discussed in Chapter 4 on Page 29: In addition to setting clear goals, establishing ground rules should be clearly defined and adhered to with consequences spelled out for not adhering to those rules.	No action taken. Ground rules are important in some settings, but they are not design principles in this context.
			Q) Item 3(c) in Chapter 4 on Page 32 references the level of linguistic diversity when selecting an effective stakeholder engagement approach. I think your target audience will be better served if a more clear term/phrase was used here. I assume you are referencing the level of sophistication within a stakeholder group, but that could be incorrect.	Text was modified to make it clear that item 3(c) is referring to foreign language barriers.
			R) I reiterate my comments above regarding use of ESR's in a management role in regards to engagement strategies for the specific levels of the management continuum in Chapter 4 on Pages 32-33.	No action taken. Please see response to Comment 8E.

9	Paul Weakland, Commercial Fisherman	Verbal testimony at Commission meeting on 11/9/2017	A) Request to include language in the Master Plan that identifies that steps/process that will be taken if/when aspects of the Master Plan are not fully implemented.	No action taken. Recommended actions may vary depending on the scope and scale of the components that are not being implemented.
			B) Suggestion to include landing tax information for each fishery as part of the Enhanced Status Reports and online fisheries portal.	The ESR outline was modified to include landing tax information.
10	Jiri Nozicka, Commercial Fisherman	Verbal testimony at Commission meeting on 11/9/2017	There are times when management decisions made by the California Fish and Game Commission are adjusted/changed/revise by the State Legislature due to political pressures. Would like to see the amended Master Plan be designed to limit having management decisions take place outside the Department/Commission's process. Suggest including language that outlines how the Commission's role in implementing the amended Master Plan relates to the legislative process.	No action taken. The amended Master Plan cannot restrict the Legislature's authority.
11	Chris Voss, Commercial Fisherman	Verbal testimony at Commission meeting on 11/9/2017	Would like to see the language in the prioritization chapter and throughout the draft updated to highlight the importance and necessity of collaboration and fisheries partnerships when exploring and/or developing management plans. This collaborative approach would reflect the spirit of the MLMA and lead to stronger decision making that would have broad support and withstand (or avoid) potential litigation.	Text was modified in Chapter 3 to highlight the importance of collaboration and CFR.
12	Kathy Fosmark, Fishing Industry	Verbal testimony at Commission meeting on 11/9/2017	Concerns expressed that selected fishermen accountable to who they represent should be at the table in the decision-making process of the Fish and Game Commission when the MLPA was passed into law. Committees of science can inform the Commission. Groups of selected users, biologists, and statistical science experts could be incorporated into the amended Master Plan. In an effort to better integrate fishermen's knowledge into the development and implementation of the Master Plan, would like to see a similar process design as the Pacific Fishery Management Council where there are committees advising decision making and where industry/fishermen's knowledge and technical expertise are actively incorporated. Additionally, there should be standards (percent of economic impact) not to exceed a threshold to achieve conservation when making regulations, such as 10-20%.	No action taken. Appendix B highlights the stakeholder engagement efforts that the Department conducted in order to solicit and incorporate fishermen's and industry's feedback on the draft amended Master Plan.
13	Commercial Fisherman, Monterey	Verbal testimony at Commission meeting on 11/9/2017	No direct comments on the draft, and expressed concern that he had not heard of the MLMA Master Plan amendment process prior to the MRC meeting.	No action taken. Please see response to Comment 12. Updates on the MLMA Master Plan Amendment process have been provided regularly at Commission meetings.
14	Bill Bernard, Recreational Fisherman	Verbal testimony at Commission meeting on 11/9/2017	It would be helpful to focus the request for input when seeking fishermen's feedback- particularly with a large document. One option is to develop an online (or paper) form that the public could complete to provide direct input on areas that CDFW is seeking input. For example, for learning about "what are social impacts" from fishermen during CDFW presentations at meetings, handouts of the question statements could be passed out for constituents to provide input on if they wish during the meeting.	No action taken. Please see response to Comment 12. The stakeholder discussion series provided opportunities for focused input on the draft amended Master Plan.

Table Abbreviations: FGC (Fish and Game Commission), MRAG (MRAG Americas, Inc.), MPA/MPAs (Marine Protected Area/Areas), OST (Ocean Science Trust), NOAA (National Oceanic and Atmospheric Administration), MLMA (Marine Life Management Act), ESR (Enhanced Status Reports), FMP (Fishery Management Plan), NGO (Non-governmental Organization), PSA (Productivity and Susceptibility Analysis), EFI (Essential Fishery Information), MSE (Management Strategy Evaluation), DLM (Data-limited method toolkit), OPC-SAT (Ocean Protection Council Science Advisory Team), CFR (Collaborative Fisheries Research), AF (Assessment Framework), BWG (Bycatch Working Group)

Notes:

- 1) Verbal testimonies and written comments were summarized in an effort to streamline the response to comments table for readability and capture the key messages and recommendations. Comments are therefore not verbatim records.
- 2) References to "Dashboard" have been updated to "online fisheries portal" to reflect internal changes in nomenclature.