

Marine Life Management Act Master Plan: Implementation Work Plan

June 3, 2019

Background

The Marine Life Management Act Master Plan (2018 Master Plan) was adopted by the Fish and Game Commission (FGC) in June 2018. The 2018 Master Plan, which updates the original 2001 Master Plan, provides guidance and a toolbox for implementing the Marine Life Management Act (MLMA) goals and objectives. To help ensure that the 2018 Master Plan is implemented effectively, it specifies the development of an Implementation Work Plan (Work Plan).

Structure and Content

To aid in the successful implementation of the 2018 Master Plan, the Work Plan incorporates the following two characteristics:

1. The Work Plan must clearly capture the range of activities that are required to implement MLMA-based management over the next several years. These include fishery prioritization and scaling components from the 2018 Master Plan as well as routine ongoing activities and new statutory mandates.
2. The Work Plan must be adaptable to reflect change as specific tasks reach completion and others are initiated. In many cases, the results from completed tasks will inform the development of new tasks. For instance, the prioritization and scaling tasks within the MLMA-based management “Framework” will inform the decision (and resulting tasks) regarding which species currently need more focused management.

The Work Plan incorporates these two characteristics through seven key elements. The tasks listed under these elements within the Work Plan table below reflect current or soon-to-be implemented work. Partners supporting specific tasks are noted and an anticipated time frame is provided. Planned next steps, those that are expected to be addressed at some point within the next several years, are provided in Appendix 1.

Stakeholder engagement and peer review, as described in the 2018 Master Plan, are crucial to the successful implementation of the MLMA across most of the elements listed below. When specific stakeholder engagement and peer review activities are identified, they will be added as Work Plan subtasks.

Plan Updates

Following presentation of the draft Implementation Work Plan to the FGC Marine Resource Committee (MRC) in March 2019, the final Work Plan will be submitted to the FGC in June. It is anticipated that regular updates will be provided to the MRC and, as requested, to the FGC Tribal Committee and FGC at their scheduled 2019 and 2020 meetings.

Work Plan

Time Frame: Annual, Ongoing, PC (Proposed Completion), TBD (To Be Determined)

Acronyms for partners provided below Element VII

I. MLMA Framework - Prioritization		
Tasks	Partners	Time Frame
Fisheries Set #1: Key finfish plus Bay Shrimp, CA Spiny Lobster, and Market Squid		
<ul style="list-style-type: none"> Conduct Bycatch Ecological Risk Assessment (ERA) and Habitat ERA; conduct Target ERA and combine with Productivity & Susceptibility Analysis (PSA); combine bycatch, habitat, and target results 		PC July 2019
<ul style="list-style-type: none"> Present update on production of prioritized list for Fisheries Set #1 to MRC 		July 2019
<ul style="list-style-type: none"> Apply socioeconomic and climate considerations 	CA Sea Grant	PC Aug 2019
<ul style="list-style-type: none"> Engage stakeholders: ERA + PSA prioritization results; socioeconomic and climate considerations; next steps (scaling) 	Engagement opportunity for CA Tribes and interested stakeholders	PC July - Sep 2019
<ul style="list-style-type: none"> Present prioritized list for Fisheries Set #1 to FGC 		Presentation at Oct FGC meeting; final approval at Dec FGC meeting
II. MLMA Framework - Scaling		
Tasks	Partners	Time Frame
High-Rank Fisheries (Set #1): conduct evaluation (degree of management change needed; fishery complexity) to determine appropriate management scale	Specific engagement opportunities for CA Tribes and interested stakeholders will be added to the Work Plan as they are identified	PC Feb 2020
III. Scaled Fishery Management Documents: Development		
Tasks	Partners	Time Frame
Develop 35 Enhanced Status Reports (ESRs) for 38 Species	Fathom Consulting, Strategic Earth, SeaChange Analytics, OPC	PC June 2019
Update ESRs with 2018 landings		PC Oct 2019
Generate Pacific Herring FMP	SeaChange Analytics, Pacific Herring FMP Steering Committee	Proposed Adoption by FGC: Oct 2019
Generate Red Abalone FMP	TNC, CA Tribes, Fishermen	Proposed Adoption by FGC: Summer 2020
Address target species of high-rank fisheries (Set #1) at appropriate scale identified in II	TBD	TBD

IV. Managing Fisheries		
Tasks	Partners	Time Frame
Monitoring/Research		
<ul style="list-style-type: none"> • Long-term fishery–dependent and – independent data collection 	Various Partners; supplemental resources and/or partnerships could expand scope of this effort	Ongoing
<ul style="list-style-type: none"> • Key short-term collaborative fishery research projects 		Ongoing
<ul style="list-style-type: none"> ○ Use Remote Operating Vehicle to assess habitat use by Warty Sea Cucumbers and MR dive survey effectiveness in monitoring populations of this species 	Marine Applied Research and Exploration,	PC June 2019
<ul style="list-style-type: none"> ○ Examine climate change impacts on the sustainability of key fisheries of the CA Current System 	SIO, SDSU, NOAA Fisheries	PC 2020
<ul style="list-style-type: none"> ○ Monitor experimental Box Crab fishery catches (part of the experimental Box Crab collaborative program) 	Fishermen, FGC, PSMFC, OPC	PC for first year March 2020
Data Analysis and Stock Assessments		
<ul style="list-style-type: none"> • Conduct project-specific data analyses; efforts that have previously been highlighted to the MRC are provided in sub-tasks below 		Ongoing
<ul style="list-style-type: none"> ○ Generate CA Halibut stock assessment 		PC Fall 2019
<ul style="list-style-type: none"> ○ Conduct Management Strategy Evaluation (MSE) through the Data-Limited Methods (DLM) Toolkit on eight state-managed species/species groups (Barred Sand Bass, CA Halibut, Kelp Bass, Redtail Surfperch, CA Spiny Lobster, Red Sea Urchin, Rock Crab [3 species], Warty Sea Cucumber) 	NRDC, UBC, SeaChange Analytics, OPC	PC Jan 2020
<ul style="list-style-type: none"> ○ For the red abalone management strategy integration process, use a simulation modeling approach to test management indicators to determine suite of indicators that provide best management strategies for reopening a fishery and for managing an open fishery 	TNC, Dr. Bill Harford	PC 2020
Review Analytical Results and Develop Management Options		
<ul style="list-style-type: none"> • White Seabass and CA Spiny Lobster status as determined through process outlined in FMPs 		Annual
<ul style="list-style-type: none"> • Market Squid status as determined through egg escapement evaluation 		Dependent on sampling
<ul style="list-style-type: none"> • Cabezon, Greenlings, and CA Sheephead landings against TACs 		Annual
<ul style="list-style-type: none"> • Kelleys Whelk and Sheep Crab landings against TACs 		Annual

• Pacific Herring spawning biomass estimates		Annual
• Northern CA Red Abalone status	Various	Annual
• Dungeness Crab meat quality evaluation	Fishermen, PSMFC, CDPH, OEHHA	Annual
• Dungeness Crab, Rock Crab, and CA Spiny Lobster domoic acid level evaluation	Fishermen, CDPH, OEHHA	Ongoing
• Razor Clam domoic acid level evaluation	Fishermen, CDPH, OEHHA	Ongoing
Identification of Management Measures and Development of Regulations		
• Hagfish traps permitted on single vessel	FGC	Proposed Adoption by FGC: June 2019
• Commercial kelp and algae harvest management: phase 2	FGC, InterTribal Sinkyone Wilderness Council	In progress

V. Outreach

Tasks	Partners	Time Frame
Implement CA Fisheries Portal		
• Design CA Fisheries Portal, includes layout for ESR text	Fathom Consulting, Strategic Earth, Waterview Consulting, OPC, CA Tribes, Stakeholders	PC June 2019
• Build website for CA Fisheries Portal and add ESR text	TBD	PC March 2020
Post final, updated ESRs onto Marine Region website until imported into CA Fisheries Portal		PC Nov 2019
Renovate MR website		TBD
Provide regular updates at FGC Marine Resource Committee and Tribal Committee meetings		Ongoing
Participate on formal and informal fishery task forces and workgroups	Various	Ongoing
Outreach to fishermen through port discussions		Ongoing
Build partnerships to support implementation	Academics, Non-government entities, Fishermen and member groups, CA Tribes, Other constituents	Ongoing

VI. Implementing New Programs

Tasks	Partners	Time Frame
Implement Experimental Fishing Permit Program: California Fisheries Innovation Act of 2018 (AB 1573)		
• Develop program and design and implement regulations governing program	Fishermen, TNC, FGC	PC Dec 2019
Implement Risk Assessment and Mitigation Program (RAMP): SB 1309		
• Develop program and design and implement regulations governing program	Dungeness Crab Task Force, Dungeness Crab Fishing Gear Working Group, FGC	PC Oct 2019
Implement Gear Retrieval Program for Dungeness Crab Traps: SB 1309		

<ul style="list-style-type: none"> Develop program and design and implement regulations governing program 	Dungeness Crab Task Force, Dungeness Crab Fishing Gear Working Group, FGC	PC July 2019
Implement Standardized Gear Marking Program: SB 1309		
<ul style="list-style-type: none"> Develop program and design and implement regulations governing program 	Fishermen, FGC	PC Nov 2019
Implement Disaster Relief Programs		
<ul style="list-style-type: none"> Dungeness and Rock Crab 2015-2016 fishery disaster: mitigation plan 	PSMFC, NOAA Fisheries	PC Aug 2019
VII. Improving MLMA Fisheries (Ecological, Social, and Management Systems) Including Adaptive Capacity		
Tasks	Partners	Time Frame
Data modernization and review		
<ul style="list-style-type: none"> Transition from paper commercial landing receipts to electronic receipts 	PSMFC	PC July 2019
<ul style="list-style-type: none"> Review and evaluate logbooks 		TBD
Data collection methods		
<ul style="list-style-type: none"> Evaluate use of remote operating vehicles for collecting sea cucumber data inside and outside of MPAs 	Marine Applied Research and Exploration	PC June 2019
<ul style="list-style-type: none"> Evaluate use of electronic monitoring for vessels participating in box crab experimental fishing program 		TBD
Develop and/or review fishery management tools		
<ul style="list-style-type: none"> Scope out types of analyses to support review of CA restricted access programs 	Conservation Strategy Fund	Complete
<ul style="list-style-type: none"> Develop criteria and protocols to evaluate and respond to potential risk of marine life entanglement (SB 1309) 		PC 2020
Improving fisheries management responsiveness and fishing community adaptability	Supplemental resources and/or partnerships could expand scope of this effort	
<ul style="list-style-type: none"> Investigate ways to increase management responsiveness and fishing communities' resilience to changing ocean conditions 	FGC, OPC, OST, PFMC	Ongoing
<ul style="list-style-type: none"> Support development of port profile descriptions 	NOAA Fisheries, FGC, CA Sea Grant	PC Sept 2019

Partner Acronyms

CDPH: California Department of Public Health

NOAA Fisheries: National Oceanographic and Atmospheric Administration, National Marine Fisheries Service

NRDC: Natural Resources Defense Council

OEHHA: Office of Environmental Health Hazard Assessment

OPC: Ocean Protection Council

OST: California Ocean Science Trust

PFMC: Pacific Fishery Management Council

PSMFC: Pacific States Marine Fisheries Commission

SDSU: San Diego State University

SIO: Scripps Institution of Oceanography

TNC: The Nature Conservancy

UBC: University of British Columbia

Appendix 1: Planned Next Steps

A-I. MLMA Framework - Prioritization
Tasks
Conduct prioritization process for Fisheries Set #2: Remaining key invertebrate fisheries
Enhance future prioritization processes
<ul style="list-style-type: none"> • Develop socioeconomic assessment tool for use in prioritization process as noted in MLMA-based Management Framework • Develop oceanographic and climate assessment tool to include in the prioritization process
A-II. MLMA Framework - Scaling
Tasks
High-Rank Fisheries (Set #2): conduct evaluation (degree of management change needed; fishery complexity) to determine appropriate management scale
A-III. Scaled Fishery Management Documents: Development
Tasks
Enhance sections of management documents for high-rank fisheries (Set #1) including socioeconomics and climate
Address target species of high-rank fisheries (Set #2) at appropriate scale identified in A-II
<ul style="list-style-type: none"> • Enhance sections of management documents including socioeconomic and climate
Update ESRs annually with latest fishery information (for example, latest catches, research and monitoring results – including socioeconomics and climate, and regulation changes)
A-IV. Managing Fisheries
Tasks
New Monitoring/Research
<ul style="list-style-type: none"> • Conduct research to address information gaps identified in ESRs • Continue research to address the use of marine protected areas in MLMA-based management • Conduct research to address socioeconomic information gaps • Conduct research to address climate-related information gaps <ul style="list-style-type: none"> ○ Conduct climate vulnerability assessment • Identify emerging fisheries that might benefit from inclusion in an experimental gear program
New Data Analysis and Stock Assessments
<ul style="list-style-type: none"> • Conduct analyses for high-rank species to support scaled management identified in III and A-III; may include stock assessments, data-limited methods
Review New Analytical Results and Develop Management Options
<ul style="list-style-type: none"> • Identify management options for high-rank species to support scaled management identified in III and A-III • Identify management options to address fisheries concerns (e.g., ecological and socioeconomic) highlighted through monitoring/research and assessments <ul style="list-style-type: none"> ○ Identify options for non-high-rank species to address specific concerns highlighted through monitoring/research and assessments such as those outlined in I and A-I ○ Using results from climate vulnerability assessments and other tools, identify options for addressing risks to fish stocks and fishing communities from climate change
Identification of New Management Measures and Development of Regulations
<ul style="list-style-type: none"> • Identify management measures for high-rank species to support scaled management identified in III and A-III

A-V. Outreach
Tasks
Renovate MLMA Website
Enhance CA Fisheries Portal (such as additional resource links)
A-VI. Implementing New Programs
Tasks
Implement any new marine fisheries programs as mandated through 2019 legislation
A-VII. Improving MLMA Fisheries (Ecological, Social, and Management Systems) Including Adaptive Capacity
Tasks
Data modernization and review
<ul style="list-style-type: none">• Develop and implement public fisheries data query tool for the Marine Landings Data System• Centralize fisheries independent data sets
Bycatch reduction methods
<ul style="list-style-type: none">• Test methods for reducing bycatch
Improving management adaptive capacity
<ul style="list-style-type: none">• Identify management approaches that increase adaptive capacity for responding to climate change