

**California Dungeness Crab Fishing Gear Working Group**  
**Risk Assessment and Mitigation Program (RAMP)**  
**Draft Management Measures Toolbox: Draft Management Option Ideas for Fleet Consideration**  
*August 2018*

The California Dungeness Crab Fishing Gear Working Group (Working Group) is continuing to develop ideas and options for possible management measures to include in a Management Measures Toolbox (MMT) that would be used as a step in the Risk Assessment and Mitigation Program (RAMP). Building on a draft MMT developed in April 2018 ([here](#)) and informed by established guiding principles ([here](#)), the August 2018 draft MMT attempts to outline ideas/options that could be feasibly used during the 2018-19 fishing season. Additional ideas that are still under development (i.e., R&D) are also included and the MMT may be updated in the future as new options become available following research to confirm the options' viability. During the 2018-19 fishing season, the MMT will be available to an Evaluation Team to consider when addressing circumstances of elevated entanglement risk.

The Working Group welcomes ideas and suggestions on the draft MMT via [info@cawhalesgroup.com](mailto:info@cawhalesgroup.com). Additional materials and products developed by the Working Group are available at <http://www.opc.ca.gov/whale-entanglement-working-group/>.

Draft Management Options (as of August 1-2, 2018)	Level of Risk			August 1-2, 2018 Notes/Considerations
Request all fishermen to follow Best Practices Guide	Green	Yellow	Red	
Request fishermen participation in NOAA trainings				
Trap limit program				
Gear recovery program				
CDFW advisory (time/area/gear/reminder BP)				
Increase "readiness" of law enforcement and data gatherers and first responders				- Need to consider the scale at which information is collected (e.g., lat/long, by block ,etc.) as this informs the next stage of management measures, if needed - Opportunity to enforce surface gear regulations
Require "logger" on boat to fish in area (e.g., solar logger)				
Permotholders declare no longer fishing and enforcement of 96 hour rule increases in spring				
Buffer zone- Decreased concentration of gear outside closed areas				
Temporary area restriction (i.e., depth contour, spatial area)				- How do we learn about fishing dynamics in a given area? - Scaling considerations (lat/long, depth contour, blocks) - Where is gear moved to? How to avoid inadvertant impacts in other areas? Is a buffer zone/gradient needed where gear is thinner closer to the restricted area?
<b>Research &amp; Development Ideas</b>				
Reduce number of pots in an area				How does this take place? Ideas: - Different color tag allocated to the fishermen to reduce traps - Fishermen could apply for tags at the beginning of the year - Consider updating tags to include 1/2 allocation one color, the other 1/2 a different color. If a reduction of traps was required, could only allow for fishing of one color trap tags
Spring fishing tag				Similar considerations to above
Gear innovations (i.e., only certain gear allowed under elevated conditions (e.g., ropeless)				How to consider who can afford to implement the gear innovations
Monetary incentives needed to reduce fishing in a time/area				
<b>Communications</b>				
Advisory (time/area/gear/reminder BP)	Green	Yellow	Red	
Recommend to LED focused area/review to enforce measures (already in place)				
Role of fishermen helping to inform on-the-ground circumstances to help inform ET's process				
Stand-by (waming of possible action in near future)				
Mobilize team and increase "readiness" of data gatherers (research, whale watch, CG)				
Gather additional real-time data to inform situation (aerial/water surveys, conversations with fishermen)				
Permotholders declare no longer fishing and enforcement of 96 hour rule increases in spring				
Include other fisheries in the management measure? Part of the ET's recommendation of the Director?				
<b>Examples of Questions Under Consideration</b>				
Understanding the timing for moving gear? Weather related - what if fishermen can't access gear? Complexity of the fleet, based on size of area under consideration				