



California Whale Entanglement Discussion Dungeness Crab Fishing Gear Working Group Summary of Key Themes, April 23-24, 2018

The California Dungeness Crab Fishing Gear Working Group held an in-person meeting on April 23-24, 2018 to review and evaluate the Risk Assessment and Mitigation Program (RAMP). Goals for the April meeting included:

- Review and evaluate the RAMP 2017-18 Pilot and further refine and develop its structure, form, and function including, but not limited to, group composition, decision making processes, data inputs and information gathering, and roles, including authority.
 - Continue tabletop exercise (mock scenario) with focused discussion and clear outcomes of management options, including the use (and development) of the Management Measures Toolbox (MMT).
 - Learn of the status of RAMP pilot projects (e-reporting, whale/forage, gear modification) and how this information can inform the RAMP Risk Assessment Framework, including conducting a post-season evaluation.
- Confirm process for engaging and communicating with the commercial and recreational fishing communities during the 2017-2018 fishing season to convey information and solicit input on the RAMP.
- Discuss funding strategies for RAMP implementation in the near and longer-term, including coordination and planning during the 2018-19 fishing season.
- Confirm Working Group products, recommendations, and/or outline memo/next steps summary for target audiences; CDFW, NMFS, FGC, the Legislature (Joint Committee on Fisheries and Aquaculture), and the DCTF.

The following summary captures key themes discussed by the Working Group and its advisors during the April 23-24, 2018 meeting; it is not to be considered a transcript. **Feedback from fishermen, decision makers, and others on the ideas and concepts discussed during the April meeting is welcome and can be shared directly with the Working Group at info@cawhalegroup.com.**

The summary, in addition to other meeting materials and products, have been made available to the California Department of Fish and Wildlife (CDFW), National Marine Fisheries Service (NMFS), the Ocean Protection Council (OPC), and the California Dungeness Crab Task Force (DCTF). This summary will also be shared with the Fish and Game Commission and California State Legislature, along with fishing associations and leadership throughout California.

Key themes summaries are developed following all Working Group meetings, and are designed to provide Working Group participants with information to share and discuss with their peers, as well as inform ongoing discussions within the Working Group itself. Additionally, these summaries will act as a source of information for those interested in this topic. Previous meeting summaries, memos, and other information about the Working Group is available at <http://www.opc.ca.gov/whale-entanglement-working-group/>.

2017-18 RAMP Pilot Review to Date

In May 2017, the Working Group group started to develop a process that could help identify circumstances of elevated risk and develop pathways to address these situations. The Risk Assessment and Mitigation Program (RAMP) involves a range of experts — fishermen, agencies, researchers, ENGOs, and others — working collaboratively to evaluate risk, identify information needs, and assess the need for management options that could be recommended to California Department of Fish and Wildlife (CDFW). For more information about the RAMP, click [here](#).

During the 2017-18 fishing season, a voluntary pilot is being conducted to test the RAMP's structure and function. To date, two risk assessments have been conducted by the agencies and Working Group; a preseason assessment was conducted in November/December at the start of the Central Management Area season ([here](#)) and a mid-season assessment was conducted in March ([here](#)). Additional conversations were convened between these meetings to continue tracking entanglement risk and highlights from these discussions were circulated to target audiences. Information gathering occurring during the pilot has included three aerial surveys to help inform the Working Group's understanding of the relationships between fishing/whales, establishing a group text involving fishermen to gain real-time on-the-water observations, increased communications and data exchange with whale watch operators, and initial fishing dynamic data collection through a solar logger pilot project. The Working Group also conducted a mock-drill of an elevated risk scenario to test out tools and identify process and design areas that could be improved.

Additional data collection and analysis and an postseason risk assessment are scheduled over the coming months. The Working Group is also interested in meeting with local ports and others to share information about the RAMP and solicit feedback and ideas. This local level outreach began in Bodega Bay in late April, and additional discussions and outreach with other California ports is anticipated for Summer/Fall 2018.

2017-18 RAMP Pilot Evaluation to Date

During its meeting in April 2018, the Working Group discussed the core components of the RAMP's structure and function. All details outlined below are considered draft and will be discussed further with Working Group peers and colleagues in advance of the Working Group's next in-person meeting, which is expected to take place in late July. The Working Group's intention is to develop an updated RAMP for implementation during the 2018-19 fishing season.

RAMP STRUCTURE

The following provides details of the Working Group's evaluation of the three key groups that make up the RAMP's structure and how they operated during the 2017-18 RAMP Pilot thus far: the Working Group, an Evaluation Team, and the Agencies. Also acknowledged was the role of a neutral facilitation team to support RAMP coordination and implementation, which was deemed by the Working Group as an important component to RAMP operations moving forward.

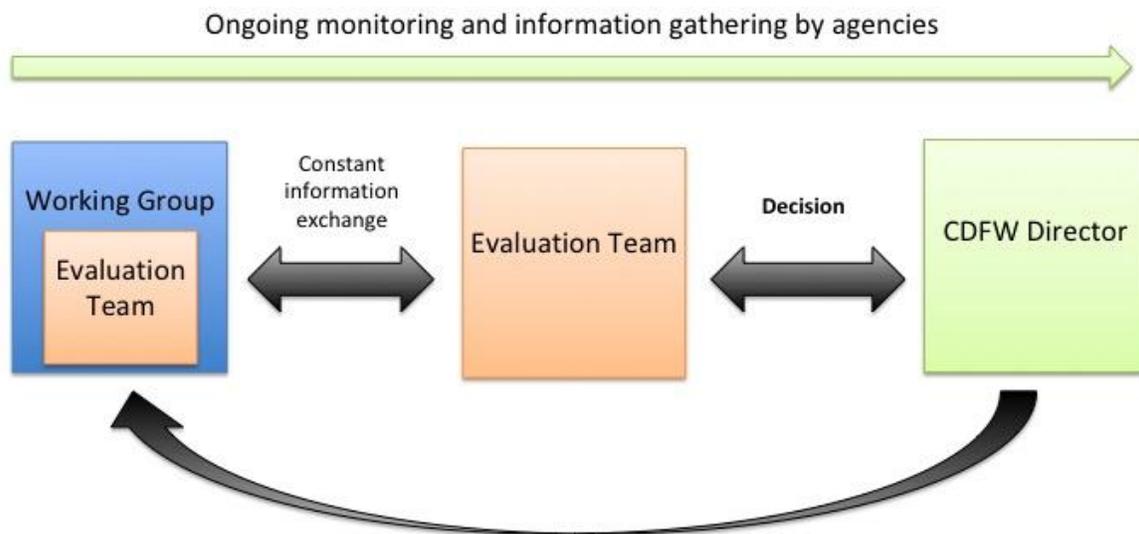
- **Working Group:** The Working Group discussed the importance of continuing to have a diverse, well-informed group directly involved in assessing entanglement risk and, when needed, to make informed management recommendations to the Director. Trust amongst Working Group participants, as well as trust between Working Group participants and the audiences they represent, is essential to successful RAMP implementation.
 - **Key Roles:** Design and fine-tune the RAMP, conduct three risk assessments per year (pre-season, mid-season, and postseason) using the Risk Assessment Framework ([here](#)), work closely with agencies and researchers to gather information to inform the RAMP (e.g., e-reporting, gear innovations, forage and whale models, etc.), inform Evaluation Team composition, and work with decision-makers, the California Dungeness Crab Task Force, and other West Coast whale working groups.

- **Composition:** Currently, the Working Group is comprised of 9 commercial fishermen from different ports, 1 recreational fisherman, 1 CPFV operator, 1 whale disentanglement network representative, 3 representatives from non-profit organizations, and 2 CDFW, 2 National Marine Fisheries Service (NMFS) and 1 US Coast Guard representative. Potential adjustments to this composition are under review.
 - The role of advisors was confirmed and would likely include a similar composition to the 2017-18 RAMP Pilot (e.g., scientists/whale & forage experts, gear manufacturers, whale disentanglement network professionals, National Marine Sanctuaries, legislative staff/consultants). The Working Group discussed the value of bringing a socioeconomic advisor to help support conducting risk assessments and developing management options.
- **Selection Process:** Working Group participants and advisors would be appointed by CDFW. Individuals participating in the Working Group would be nominated (self or by peers), require letter(s) of support, and need to comply with qualifying criteria. While participating on the Working Group would continue to be voluntary, the group discussed the value of identifying term limits and/or a process for participants to step down from the Working Group, the role of alternates, and establishing a day-rate to support involvement and reduce financial hardships associated with participation.
- **Evaluation Team:** The Working Group discussed the need for a responsive, smaller group that can quickly convene under conditions of elevated entanglement risk. To ensure an Evaluation Team (ET) is well-informed, members of an ET would be pooled from the Working Group and additional expertise would be brought into discussions as needed.
 - **Key Roles:** Convene under emergency situations, review and discuss results from Working Group's risk assessment to assess circumstances, request additional information and data gathering from agencies, identify additional expertise (e.g., local fishermen, whale experts, etc.) that may be included on the ET, use the Management Measures Toolbox (see below for more details) to develop management recommendations to the Director when needed.
 - **Composition:** Under circumstances of elevated risk, the full Working Group would be solicited to participate on an ET. The ET would be composed of those who were available to participate. The group discussed the following as the minimum composition needed for an ET to convene: 2 commercial fishermen, 1 recreational/CPFV representative, 2 representatives from non-profit organizations, and 3 agencies (CDFW, NMFS, and the Ocean Protection Council (OPC)). The agencies will work to ensure specific regional representation is in attendance and local fishermen (or others) may also be invited to lend additional expertise.
 - **Additional Considerations:** When an ET is convened, it will be important to take steps to ensure diverse fishing operations are represented. Additionally, if an ET is mobilized at the start of the fishing season it may be difficult to secure fishing participation. The group discussed the need to be flexible and timely when responding to emergency circumstances. Additional information about an ET's recommendation development process is available on page 4.
- **Agencies:** The Working Group discussed the role that the key agencies - CDFW, in partnership with NMFS and OPC - have played during the 2017-18 RAMP Pilot, and suggested adding the United States Coast Guard to the agency group moving forward.
 - **Key Role:** Ongoing monitoring and surveillance of risk assessment factors, support the Working Group to design and implement the RAMP, work with an ET to evaluate circumstances where risk

is elevated, collect information and support development of management recommendation(s), forward ET management recommendation(s) to the Director, and be responsible for enforcing the RAMP and related regulations.

RAMP FUNCTION

- **RAMP Groups:** Building on lessons learned from the 2017-18 RAMP Pilot, the Working Group developed a draft outline for how the RAMP would function moving forward. The following figure illustrates the flow of information across each RAMP group, including ongoing checks and balances between the Working Group, ET, and the Director particularly when management recommendations are made.



- **ET Recommendation Development Process:** The Working Group discussed the following draft process steps that an ET would take when developing management recommendations:
 - The ET, wherever possible, will work towards consensus with any management recommendation to show strong support in addressing the emergency circumstance across the full ET. If consensus cannot be reached, both the majority recommendation and minority viewpoint will be forwarded in writing to the Director.
 - The agencies involved in ET deliberations will help support and inform the discussion, however will not be included in an ET's vote to move recommendations forward.
 - As outlined in the figure above, implementation of an ET's recommendations by the Director will be communicated back to an ET/Working Group. If an ET's recommendations are not implemented, an ET may request a 3rd party review of the Director's implementation process. OPC was identified as a possible 3rd party who could play this role, however, additional discussion on this topic is needed.
 - While emergency circumstances may vary, the Working Group discussed a general timeframe for an ET to convene would range from 24 hours to 1 week, with the process to seek additional information and develop management recommendation(s) to take place between 1-2 days to 1-2 weeks.

- **Risk Assessment Factors Framework (RAF):** The Working Group reviewed and discussed the four risk factors that have been monitored and assessed throughout the 2017-18 fishing season - forage/ocean conditions, whale concentrations, fleet dynamics (e.g., delays, ability to transition to other fisheries during the Spring months, concentration/location of crab and fishing gear), and the rate of whale entanglements. The group continued to view the RAF as a tool that flags when risk is elevated and leads to a mobilization of the agencies and ET to gather information and explore management options.
 - **Frequency of Scheduled Risk Assessments:** Feedback on the risk assessments conducted during the 2017-18 fishing season (pre-season and mid-season; a postseason assessment is anticipated in July 2018) was positive and allowed for checks and balances throughout the fishing season. The Working Group sees value in continuing to conduct risk assessments at these key points throughout the season, coupled with ongoing surveillance of the risk assessment factors by the agencies throughout the calendar year.
 - **Risk Assessment Factors:** Fine-tuning the factors was discussed, including considering how price negotiations and the rate of processing product when there is a glut in the market can influence fishing dynamics and/or a fishing delay, using localized whale abundance data as a proxy for whale concentration, addressing concerns about the assumption that overlapping and high concentrations of whales and fishing gear lead to entanglements, and continued efforts to build a RAF that considers the connections across the four factors other rather than assessed individually. Additionally, the group continued to highlight that the whale entanglement factor (i.e., the rate of entanglements) is an overriding factor under elevated circumstances.
 - **Expanding Beyond Humpback Whales:** The group acknowledged the need to begin looking beyond humpback whales (a focus of the pilot) to include other marine species, including blue and grey whales and leatherback turtles. Information and expertise will be brought into the Working Group's discussions to help inform how to integrate these other species into the RAMP, and specifically the RAF. The Working Group agreed that this next step would begin following the 2017-18 RAMP Pilot, with information gathering possibly beginning in Summer 2018.
- **Information Gathering:** Information gathering efforts conducted during the pilot focused on informing the RAMP and continuing to improve the Working Group's understanding of fishing dynamics, whale behavior, and the relationship between the two.
 - **Feedback on Tools Used During Pilot:** There was general agreement that the tools used during the pilot thus far have been effective. Aerial surveys (weather dependent) were successful in gathering additional information to inform, confirm, or contradict the results of a risk assessment. Fishermen on the Working Group and CDFW staff initiated a group text that acted as a valuable resource to gaining real-time observations of whale activity and fishing dynamics, and the group discussed expanding text alerts and information to include all permit holders. Additional evaluation of a solar logger pilot project and gear innovation testing will take place during the Working Group's next meeting in July 2018.
 - **Engaging with the Whale Watch Community:** During the pilot, it became clear that there is a need to better coordinate with whale watch operations. Daily whale counts became an important data point for the agencies to track. The Working Group is interested in working with whale watch operators to better integrate whale watch data into the RAMP, and to standardize the data at a finer scale so it can be overlaid with fishing dynamic and forage data in the future (e.g., establish a more systematic collection of whale watch data to inform the RAF, including whale positional and depth information).

- **Management Measures Toolbox (MMT):** The Working Group continued to develop management options that would be available to an ET under emergency circumstances to inform recommendation(s) development. The group updated the MMT guiding principles ([here](#)) to highlight the importance of fishermen's safety when considering management options. A draft list of management options is available [here](#).
 - ***Integrating the RAF and MMT:*** The group acknowledged the importance of making clearer connections between the RAF and MMT. For example, under what risk circumstances would an ET consider voluntary or mandatory management measures? How are management measures categorized relative to low risk vs severe risk and how are these risk levels defined? This will help to ensure clear checks and balances are in place when an ET is considering management options and/or when the Director is considering ET recommendation(s). CDFW and NMFS will work to develop options/criteria for the Working Group's consideration and further discussion on this topic will be prioritized during the July meeting.
 - ***Compliance and Evaluation of Management Measures:*** Being mindful that circumstances of elevated risk may vary, once a management measure is in place the group discussed the need for clear steps and associated timelines to for the agencies and ET to evaluate the measure for compliance and the fleet's ability to respond in a timely and safe fashion, assess if/how compliance is contributing to continued risk levels, and what adjustments are needed to management measures (including how to reverse a management measure that is in place once the risk has been abated). Further discussion to confirm these process steps is needed and anticipated for the July meeting.
- **Communications:** The Working Group has taken steps throughout the pilot to inform target audiences of their progress, including fishing leadership, members of the whale watch community, and decision makers. All information shared to these individuals directly via email has also been posted publicly to the Working Group's webpage ([here](#)). Communications to date have included risk assessment evaluations, a January 2018 recommendations memo, support letters, and other interim communications.
 - ***Consistent External Communications:*** The group reflected on how to continue to improve providing timely updates to target audiences. It was agreed that, particularly during the pilot phase, more external communications is better and helps to uphold transparency and accuracy of available information. Updates on the Working Group's efforts to address circumstances of elevated risk should be communicated out early and often, and should include additional target audiences (e.g., through ENGO networks). There was also discussion about creating an email/text list that could inform and alert fishermen in circumstances of elevated risk. The group also considered how to better engage with members of the media to effectively communicate about the RAMP.
 - ***Encouraging Fishermen to Engage with CDFW and NMFS:*** The Working Group discussed the importance of encouraging fishermen whose gear is involved in an entanglement to speak openly and honestly with CDFW and NMFS. Building stronger communications that this step is not punitive and intended to gather information about gear set-up, location, timing, etc. to help the Working Group better understand the nature of entanglements.
- **Costs:** The Working Group did not evaluate the costs associated with RAMP operations, including information gathering, during its April 2018 meeting. An assessment on this component of the RAMP will be conducted at a future Working Group meeting.

BEST FISHING PRACTICES - COMMERCIAL

During the April meeting, CDFW requested the Working Group's input on a draft rulemaking package that would restrict the amount of surface gear used at different depths. This rulemaking is based on the voluntary Best Practices Guides that have been in place during the 2016-17 and 2017-18 fishing seasons ([here](#)). The Working Group recommended the following draft language for CDFW consideration:

- Best practices (voluntary) are expected to be implemented as described in the Best Practices Guide.
- For each trap, the surface gear maximum (enforceable) would be defined as:
 - At a depth of 35fm or less - a max total of 4fm line between main buoy and end trailer buoy. Max of one trailer buoy. Option to include one "end marker" buoy of less than 5" in diameter and max of 3ft in line length.
 - At a depth greater than 35fm - a max total of 6fm line between main buoy and end trailer buoy. Max of two trailers. Option to include one "end marker" buoy of less than 5" in diameter and max of 3ft in line length.

Questions were raised related to how this rule would be enforced when lines of gear span across depth contours, as well as establishing a standard length measurement when enforcement is assessing surface gear on the water. These proposed regulations define maximum surface gear set-ups, to reduce excessive surface lines while allowing fishermen flexibility in compliance while utilizing the best available information on reducing whale entanglement. There is ongoing interest to learn how the subsurface profile/scope of line can also be integrated into best practices. CDFW will consider the above language and is expected to release a rulemaking package for public review in early June 2018. The Working Group looks forward to learning of additional feedback on the draft language by the California Dungeness Crab Task Force and the entire commercial fleet.

Next Steps

The Working Group will reconvene in July and September 2018 to continue evaluating the 2017-18 RAMP Pilot and plan for the 2018-19 fishing season. The Working Group's work on the RAMP is intended to inform Senate Bill 1309 ([here](#)), which was developed to be responsive to the critical nature of the issue of whale entanglements and support RAMP implementation and also addresses the Working Group's recommendation to establish standardized gear markings on all fixed-gear fisheries to help gather information about the origins of entanglements (e.g., fishery, gear set-up, timing, etc.).

All meeting materials and products developed by the Working Group are available at <http://www.opc.ca.gov/whale-entanglement-working-group/>. Please send direct communications to the Working Group, including ideas, questions, or concerns, to info@cawhalegroup.com.