

Cross Caucus Group: Bob Nudd, Scott Olszewski, Peter Brodeur, Jane Davenport, Amy Knowlton, Lori Caron, Colleen Weiler, Stormy Mayo, Cheri Patterson

Management Measure	Near, Mid, Long-Term	Conservation Benefit (e.g., entanglement reduction, severity, etc.)	Questions to address	Identify refinement, detail, and analysis needs for submitted proposals	Err on the side of inclusion – more analyses = more choices in March	Subgroups to investigate elements or continue work (e.g. closure criteria group, rope subgroup)
1,700 LB Rope	Near Term	Reduce severity of entanglement by using a maximum breaking strength rope of 1,700 lbs	<ul style="list-style-type: none"> <li>• Where will 1,700 lb rope be feasible?               <ul style="list-style-type: none"> <li>○ Will this work in deeper water fisheries such as at 300 feet or more?</li> <li>○ Can various strength lines be used on one vertical line in deeper water fisheries to achieve same conservation benefit?</li> <li>○ Evaluate comparability of 1700 lb line and modifications to line such as splices, sleeves, etc.</li> <li>○ Will this work in all fisheries coastwide.</li> </ul> </li> <li>• Can rope industry produce rope in a timely manner?</li> <li>• Can 1,700 lb rope run congruent with closed areas or need to be separate?</li> <li>• Evaluate conservation measure with all life stages of whales (e.g., calves, juveniles, etc.) and sublethal impacts.</li> </ul>	<ul style="list-style-type: none"> <li>• Whale Simulators/ Tension analysis:               <ul style="list-style-type: none"> <li>○ Orca Flex</li> </ul> </li> <li>• ME line study</li> </ul>	Based on Knowlton et al.	<ul style="list-style-type: none"> <li>• Rope Workgroup/ Fishing Industry</li> <li>• Rope Industry</li> <li>• ME Grant study</li> </ul>
Closures	Near Term	Reduce Entanglement	<ul style="list-style-type: none"> <li>• Does NMFS have mechanism to revisit closures with changing habitat use?</li> <li>• Evaluate conservation benefit with whale distribution and behavior (foraging, migrating, etc).</li> <li>• Evaluate the benefit for all existing and proposed closures to vertical lines:</li> <li>• Types of effective surveys needed to monitor whale movement?</li> <li>• Cost evaluation of surveys and reality of funding?</li> <li>• Surveys to include overlapping layers fishing effort, distribution to whales, existing management measures (area closures for other fisheries, DMA, etc.).</li> <li>• Evaluate various triggers for closures, refinement, reopening closed area, how closure areas should be determined.</li> </ul>	<ul style="list-style-type: none"> <li>• Fisheries data</li> <li>• Whale behavior/ movement data</li> <li>• Current, Proposed, and potential closures of all fisheries.</li> <li>• Economists?</li> </ul>		<ul style="list-style-type: none"> <li>• Evaluation to include NOAA, ASMFC, and Councils information.</li> </ul>

			<ul style="list-style-type: none"> <li>• Evaluate risk of closures to include fishing effort, safety, etc., to the number of whales (e.g., large aggregation, smaller aggregations, singles).</li> <li>• Evaluate how to add conditions to closures that would include EFP's, best practices to experimental gear, ropeless gear, etc.</li> <li>• Evaluate rotational/rolling closure options as Canada uses?</li> <li>• Evaluate SMA's &amp; DMA's:</li> <li>• What are regulatory requirements needed to make feasible at federal or state level?</li> <li>• Feasibility of temporary or emergent closures if aggregations are noted in an area over a couple of years?</li> <li>• Feasibility of surveillance to address DMA?</li> <li>• What is the impact of DMA on industry and conservation value?</li> <li>• Stat Area 537:</li> <li>• ID aggregation of whales based on area of size of aggregation, behavior (feeding, etc.), residency, etc.</li> <li>• Better determine area for closure using seasonality of whale presence, residency in habitat, current fisheries closures, fisheries and effort, emerging fisheries, ongoing trap reductions, etc.</li> </ul>			
Ropeless	Long Term	Reduce Entanglements and SI and Mortality	<ul style="list-style-type: none"> <li>• Evaluate criteria for using ropeless vs 1,700 lbs in different areas?</li> <li>• How to incentivize to move ropeless forward on experimental basis in near term?</li> <li>• ID areas where ropeless can be done now.</li> <li>• NMFS regulatory process with gear conflicts, EFP requirements, best practices should move forward concurrently with experimentation</li> <li>• Analysis complexities to how to eliminate gear conflict with ropeless?</li> </ul>			<ul style="list-style-type: none"> <li>• Ropeless Consortium? – examine with manufacturers, engineers, developers, fishers – manufacturing details and feasibility</li> </ul>

Vertical Line Reduction	Near Term	Reduce Entanglement	<ul style="list-style-type: none"> <li>• Characterize current surface system and the need for such systems?</li> </ul>			NOAA Fisheries ME grant study
Reporting/ Monitoring	Near Term	Monitoring Fisheries/ Whale Interactions for Risk assessment	<ul style="list-style-type: none"> <li>• Feasibility of requiring all vertical line fisheries to conduct VTR reporting in near term (1-2 years)?</li> <li>• Feasibility of requiring all vertical line fisheries and conduct electronic report?</li> <li>• Conservation benefits: determine fishing effort, number of vertical lines, risk to whales</li> <li>• Happening through ASMFC: confirm timing, process, includes all fisheries and 10-minute squares</li> </ul>			<ul style="list-style-type: none"> <li>• ASMFC Lobster FMP Coordinator and NOAA Fisheries</li> </ul>
Trap Reductions	Near Term	Reducing Risk to entanglements.	<ul style="list-style-type: none"> <li>• Characterization and analysis of number and areas of traps that have been removed from the water to date and how many will be removed in future from current management plans compared to proximity and timing of whales. <i>The industry has been removing traps from the water already and this effort should be recorded and recognized as concerted efforts by the industry to reduce risk to whales.</i></li> <li>• <i>Analyze whether trap reductions are a vertical line reduction measure.</i></li> </ul>			States NOAA Fisheries ASMFC

Gear Marking	Near Term enactment– Long Term synthesis	Better understanding of gear encounters/entanglements?	<ul style="list-style-type: none"> <li>•</li> <li>• Conservation benefit: ID what gear is entangling whales, what is having severe or sublethal impacts</li> <li>• Feasibility for a variety of gear marking: <ul style="list-style-type: none"> <li>○ Unique marks for new vertical line gear (e.g., 1,700 lb line, ropeless, experimental gear, various rope diameter, etc.)</li> <li>○ Unique mark for rope diameter or offshore waters fishing heavy line, more traps/trawl?</li> <li>○ Marking groundlines?</li> <li>○ How to prioritize gear marking; which is most important, 1) different gear types, 2) location regionally, 3) diameter of rope, etc.?</li> </ul> </li> </ul>			NOAA Fisheries Canada Rope Manufacturers and Engineers
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