

Lunch – Try this out!

Link:

<https://survey123.arcgis.com/share/1a6ae9a42a7342d4884f63a089968aa9>

Send us your feedback!

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Gear Marking & 2023 Rule Making Package

September 21, 2022
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Quick Review of August Meeting

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Marine life entanglement information and resources

An increase in marine life entanglements has occurred in recent years along the U.S. West Coast relative to rates recorded prior to 2013. Commercial Dungeness crab fishing gear collectively makes up the largest portion of identifiable gear found in West Coast entanglement cases ([NOAA 2020](#)). Large whale and marine turtle species are among those most impacted by fishing gear entanglements off the West Coast, and these animals are federally protected under the Marine Mammal Protection Act and/or the Endangered Species Act. To bring the fishery into compliance with federal regulations and



url: <https://wdfw.wa.gov/fishing/commercial/crab/coastal/marine-entanglements>



Department of Fish and Wildlife

Monitoring Requirements (CP)

- a) Improve the reporting and documentation of entanglements using standardized protocols.
 - Get more eyes on the water, improve reporting rate.
 - Use Whale Alert app
 - Complete Level 1 Training

- b) Improve the ability of NMFS and the States to identify the origins of reported entanglements.
 - Improve gear marking & identification.

- c) Estimate the number or level of takes that occur but are not observed or reported.
 - Develop co-occurrence models, scar accumulation rate info, and a statistically robust method for estimating unobserved take.

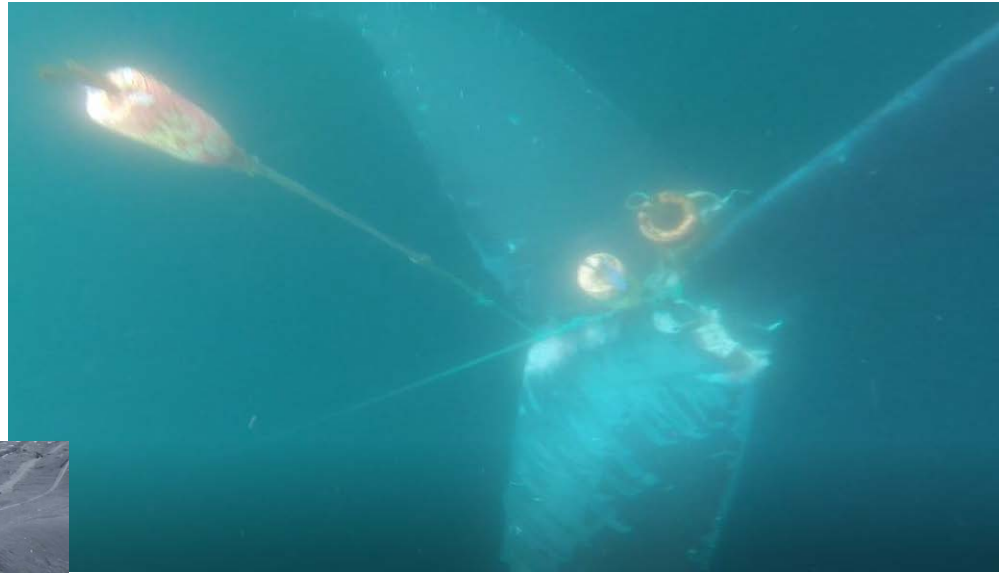


The Role of Gear Marking:

Entanglement reports often involve photos taken under poor conditions; difficult to identify gear/fishery.

1. Fishery attribution
2. Negative attribution





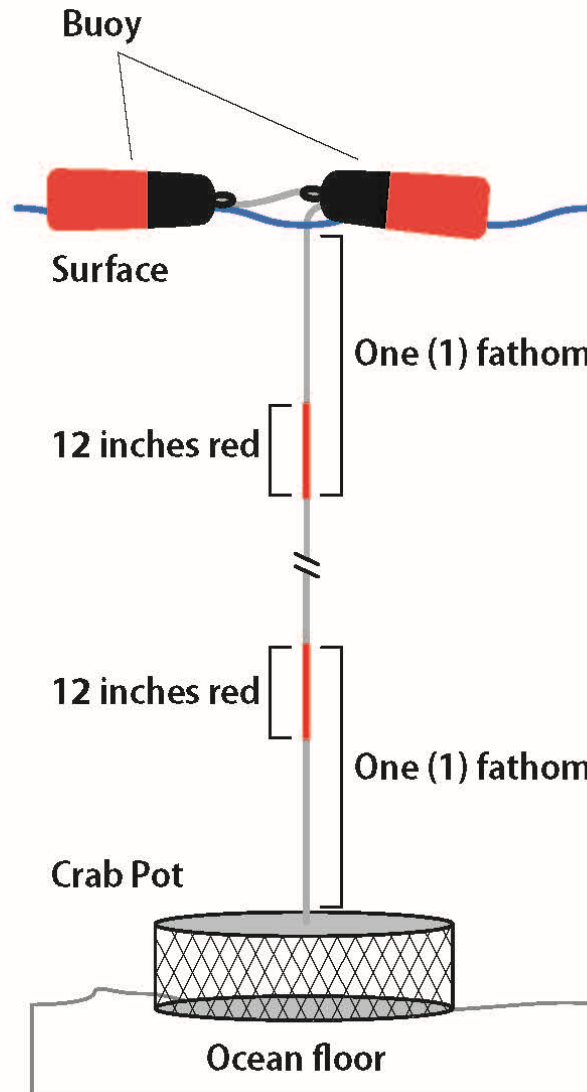


Current Rules: WAC 220-340-430

- Buoy tags
 - Shape is state-specific
 - Identifiable to fisher
 - Double-side printing
- Pot tags
- Unique buoy color/pattern
- Line marks



Current Rules – Line Marking



Line Marking - Purpose & Need

May 2020 Tri-State line marking coordination discussion:
~50% unattributed/unidentifiable gear in confirmed entanglements.

Agreed upon goals for current and future line marking regulations:

- 1) Identifiable and accurate
- 2) Visible (primarily in photographs)
- 3) Reasonable and cost-effective
- 4) Coordinated across West Coast Dungeness crab fisheries and expandable to other fixed gear fisheries, as desired
- 5) Environmentally friendly



Line Marking Proposed Roadmap

Short-term (1-3 years)

Line marking

Seek funding for transition to fishery-specific line

Coordination with other WC fisheries

Medium-term (3-6 years)

Continue line marks

Continue coordination

Begin pre-reg line replacements as rope ages

Long-term (7+ years)

Fishery-specific line replaces old marked line completely

Negative attribution fully realized



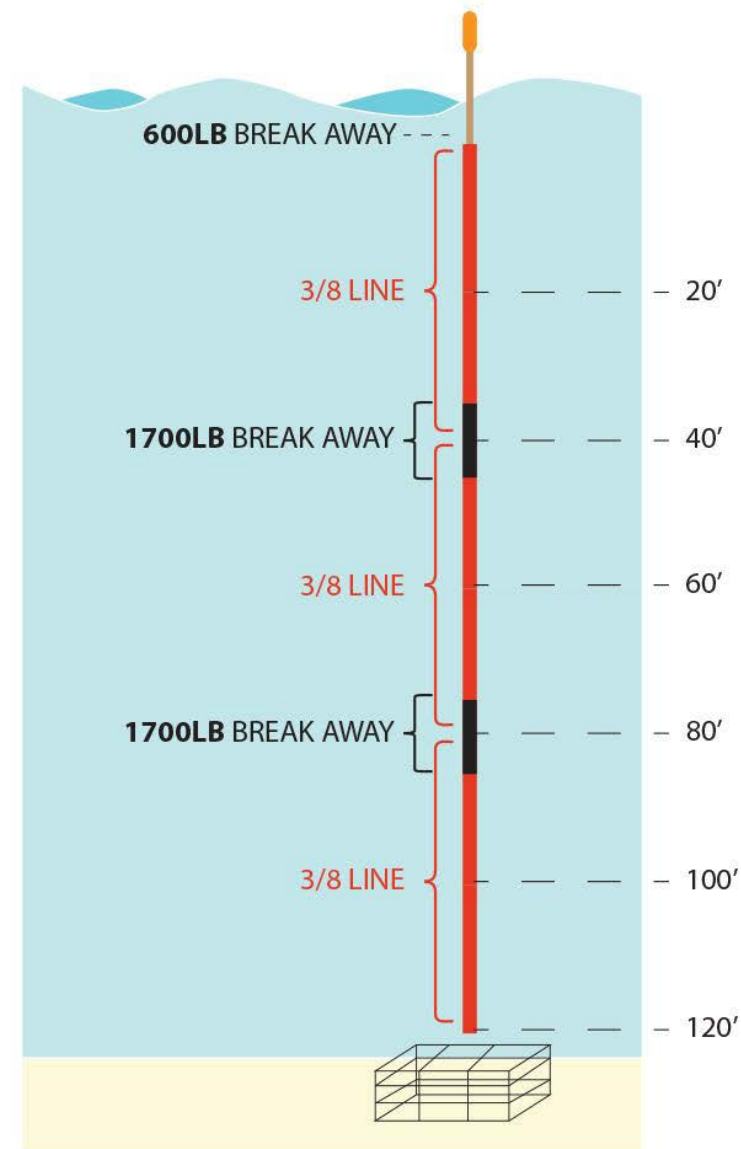
NMFS Line Marking Analysis

- Key to negative attribution
- Multiple marks
- More (and probably much larger) marks than currently required
- Focus on top and upper portion of gear
- Other portions of gear (mid / line): every few fathoms, esp. top half



Food for thought: the 40-foot concept

- Knowlton et al. 2016
 - 1700 lb breaking strength (consistent with Arthur et al. 2015)
- Knowlton et al. 2018
 - Tested inserts every 40 ft (~ 6-7 ftms)
- [September 2021 NMFS Regulations](#)

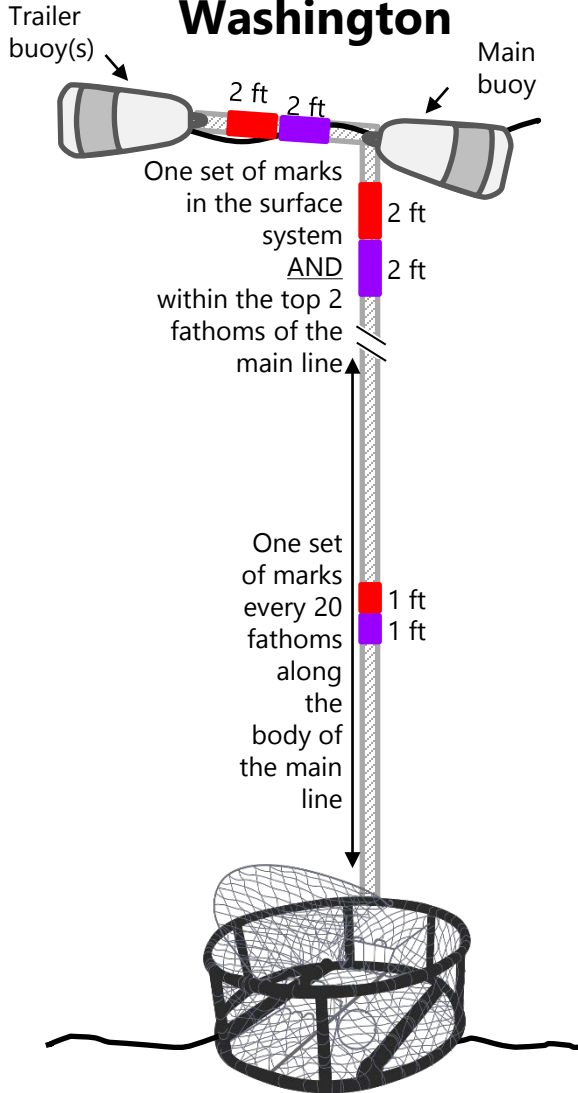


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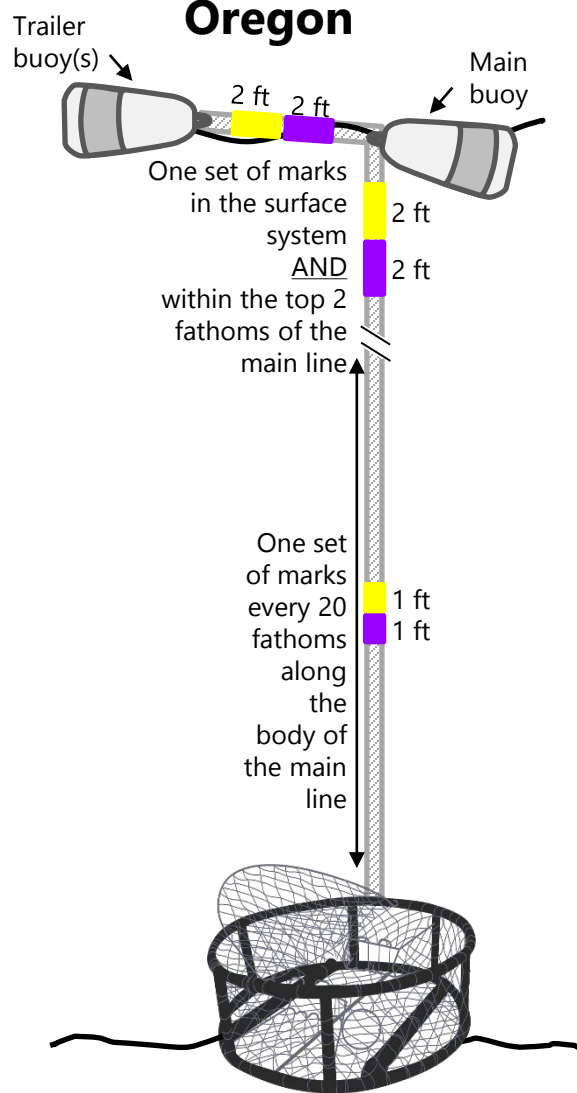
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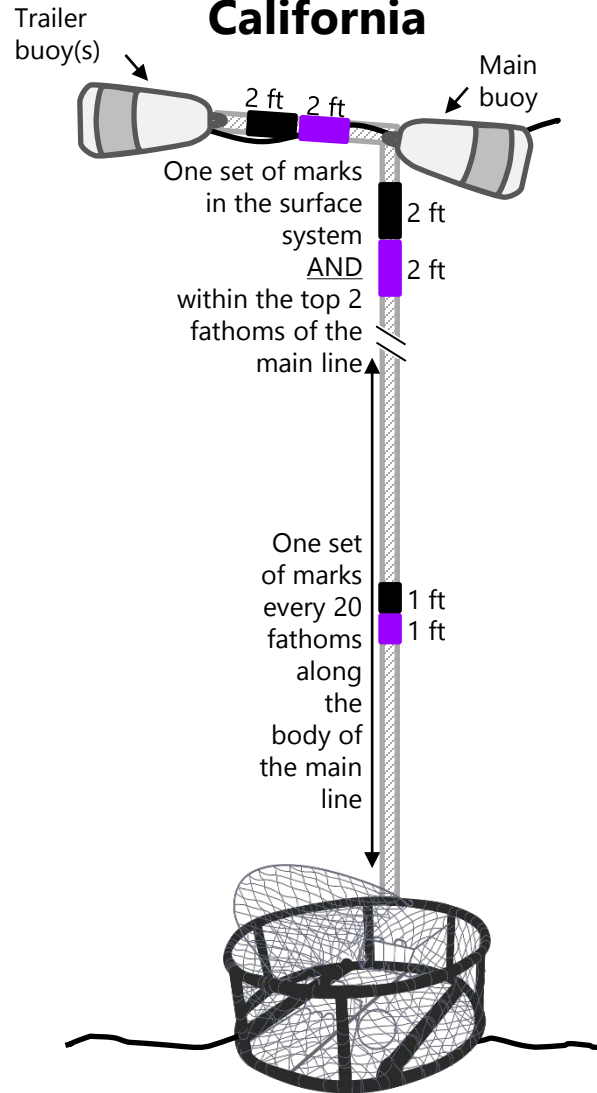
Washington



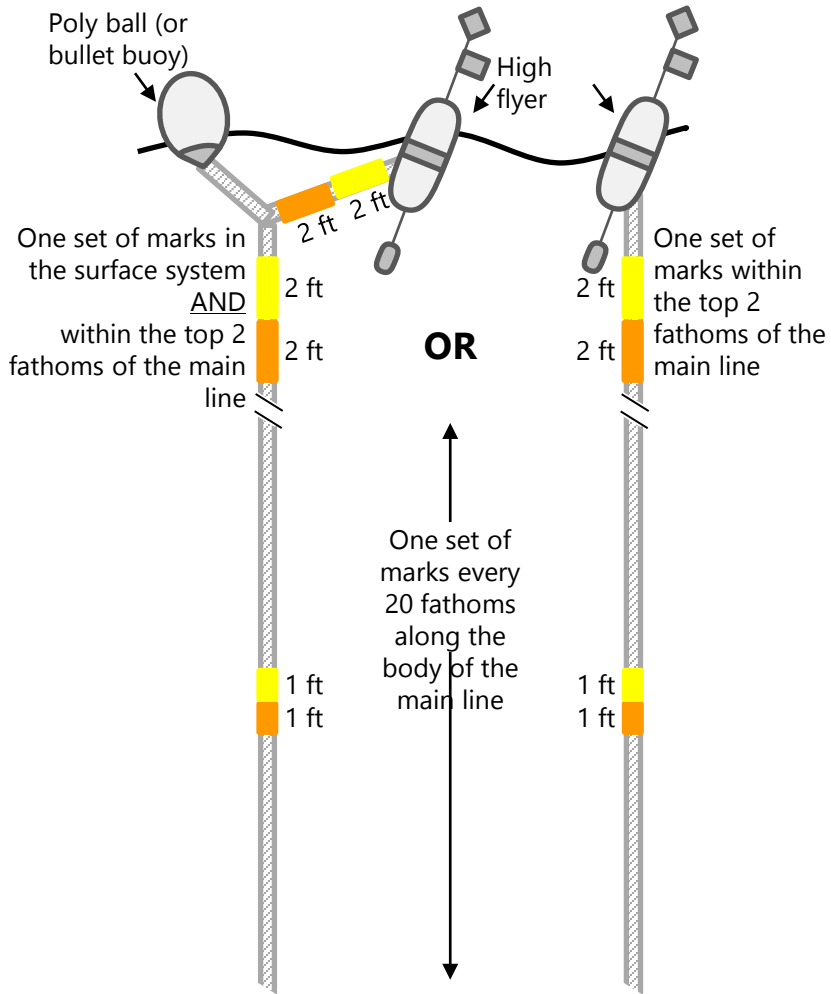
Oregon



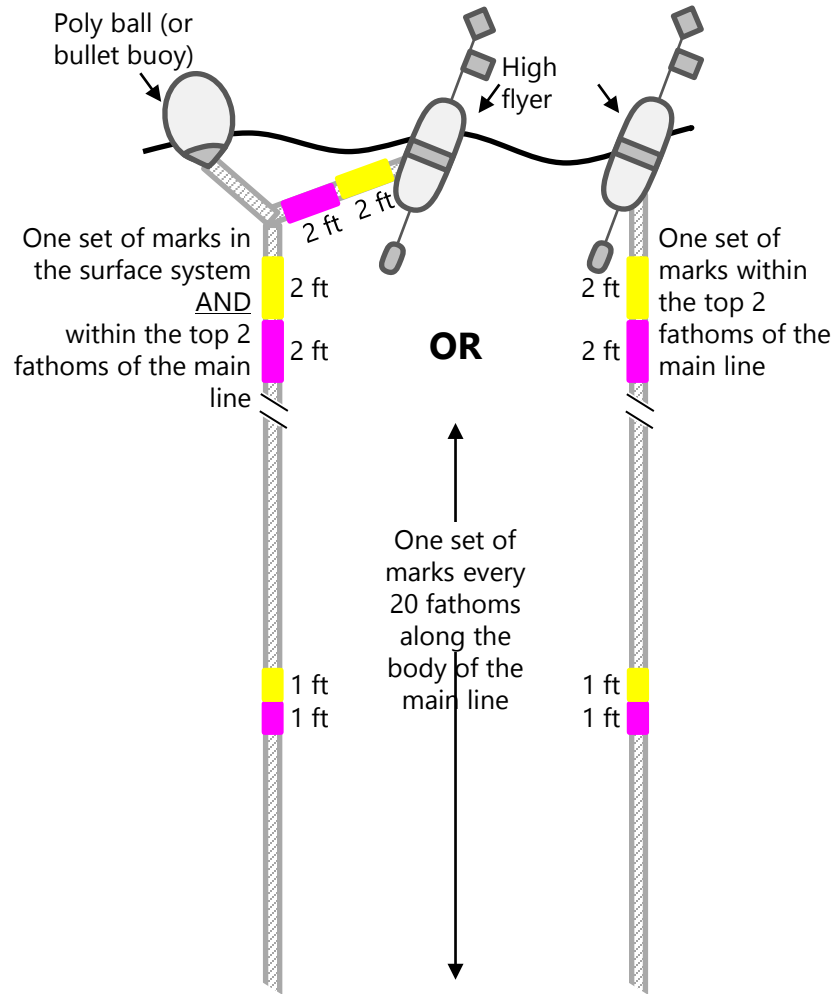
California



Hagfish



Spot and Coonstripe Shrimp



(earliest implementation: December 2023)

2023 REGULATORY PACKAGE

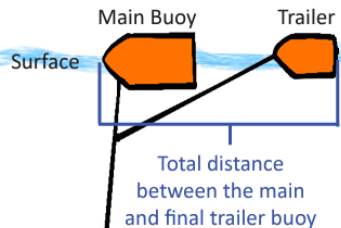
Summary

- EM requirement, including specs*
- Line marking update, including specs*
- Maximum surface gear allowance
- Level 1 ent. training requirement
- Mandatory reporting of entangled animals
- BB numbers → some other WA identifier*
- Allow exp. gear testing (rec crab)



Max Surface Gear Allowance

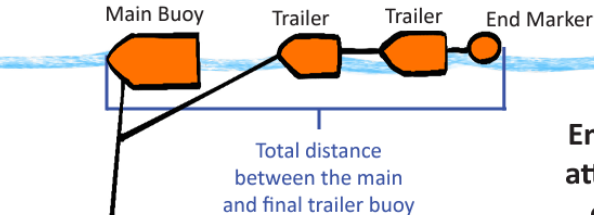
Best Practices (Recommended)



**Minimize # of buoys-
No more than 1 trailer
buoy inside 30 fathoms.**

Depth in Fathoms	Distance for Buoy Setup
Inside 30 ftm	Shortest possible - 3 ftm Max (18 ft)
30-50 ftm	Shortest possible - 4 ftm Max (24 ft)
Outside 50 ftm	Shortest possible - 5 ftm Max (30 ft)

Regulation



**End Marker Buoy
attached to 3 feet
of line or less.**

Depth in Fathoms	Distance for Buoy Setup
Inside 35 ftm	Shortest possible - 4 ftm Max (24 ft)
Outside 35 ftm	Shortest possible - 6 ftm Max (36 ft)

See CDFW's Best Practices Guide:

<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=195428&inline>



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Questions & Discussion

