Gear Marking and Entanglement Risk Reduction: Preliminary Preferred Alternative

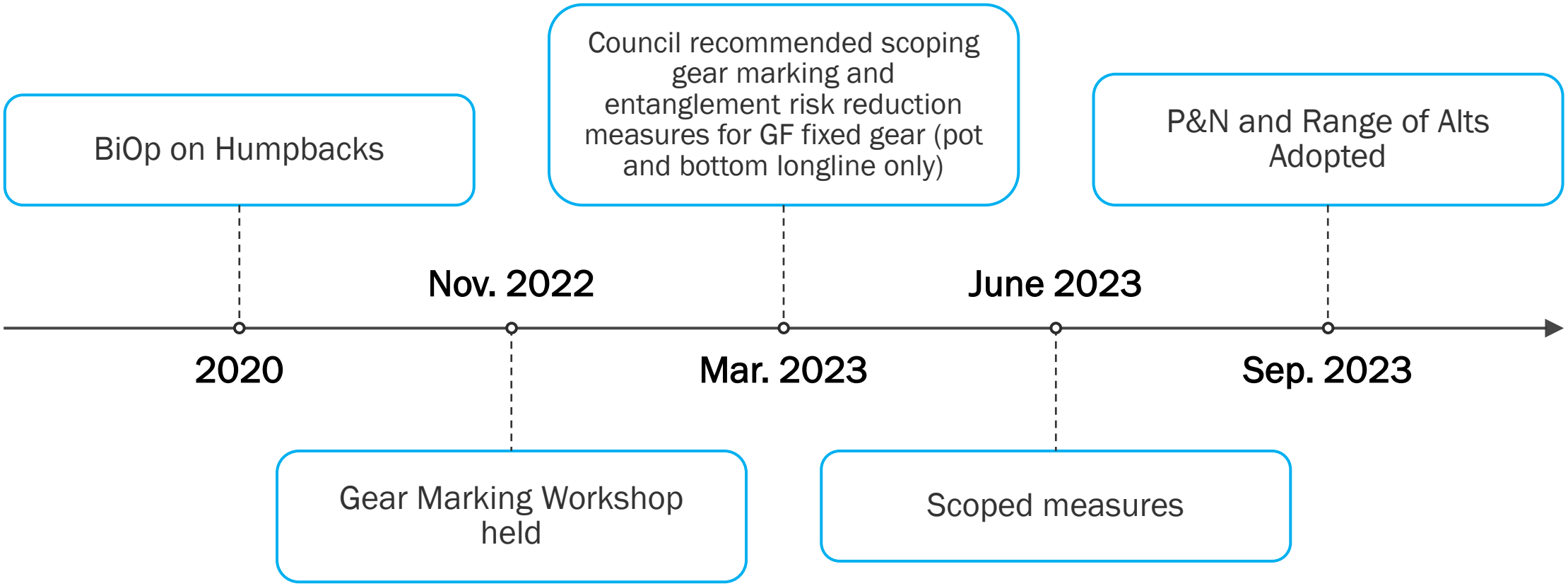
Agenda Item F.6

March 2024

West Coast Entanglements

- Whale entanglements have increased since 2013
- 2013-2021: 50% humpback entanglements have been identified to the gear
  - Mostly pot and trap fisheries
- Groundfish fixed gear (pot and longline) entanglements are rare
  - Sablefish pot gear- 5 (1982-2022)
  - No interactions in other GF pot/LGL fishery
  - 2023: 1 entanglement in halibut longline/sablefish pot

History of Action



Council Action

- ☑ Adopt PPA for gear marking, including buoy and line marking alternatives.
- ☑ Provide guidance relative to staff proposed clarification and questions as described in Attachment 1.
- ☑ Adopt PPA for entanglement risk reduction measures of surface gear requirements and surface line limitation.
- ☑ Adopt a PPA for escape panel regulations.
- ☑ Provide guidance relative to the development of a best practices guide.

Materials

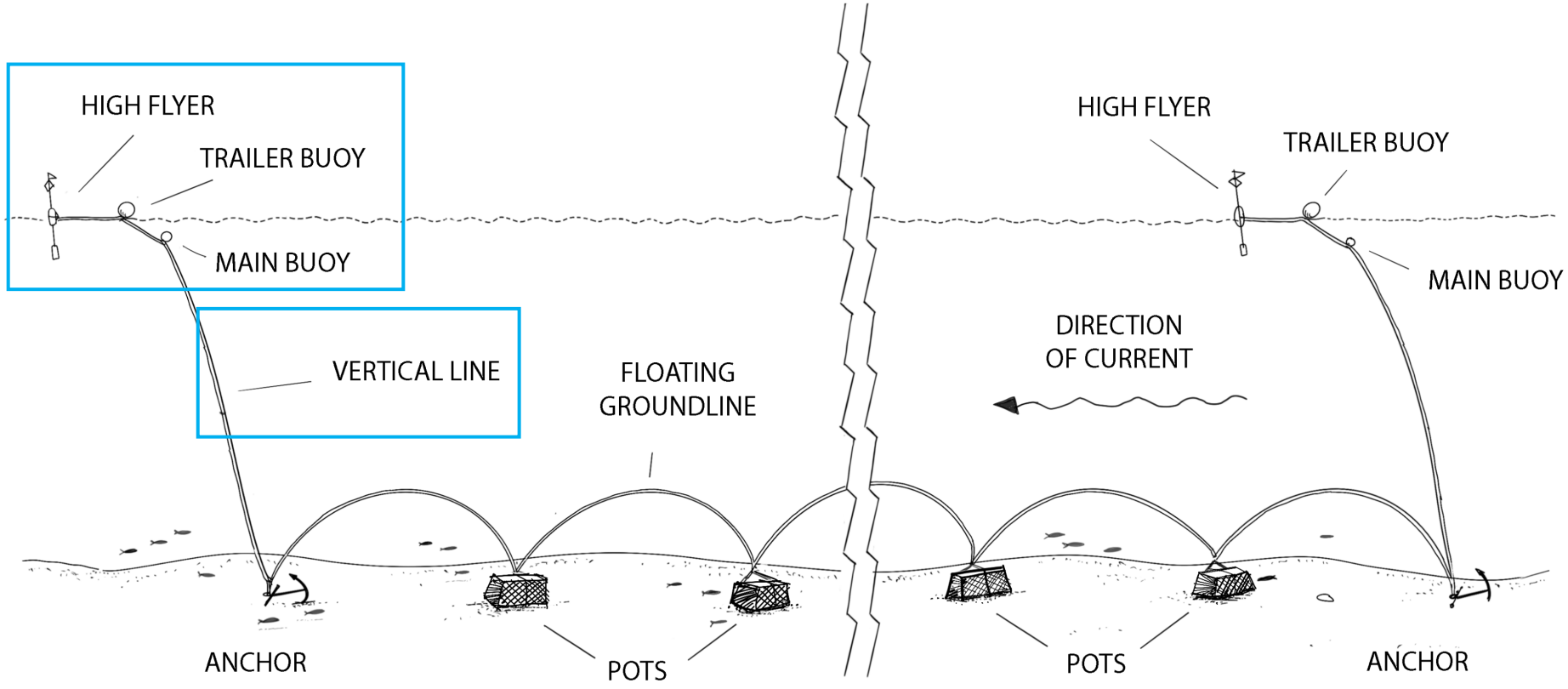
- Attachment 1: Revised Gear Marking Alternatives
- Attachment 2: Analytical Document
- Revised NMFS Report
- GAP/EC Reports
- Supplemental Public Comment

Scope of Action

- Fixed Gear: Pot/trap and bottom longline
  - Does not include other types of fixed gear (e.g. vertical HKL anchored to the bottom)
- Groundfish only- IFQ gear switchers, LEFG, Directed OA
  - Average of 303 vessels annually from 2019-2023
  - Mostly directed OA
  - Mostly longline (Table 3-1 in Attach 2)

Terminology

Page 11: Define key terms related to gear marking

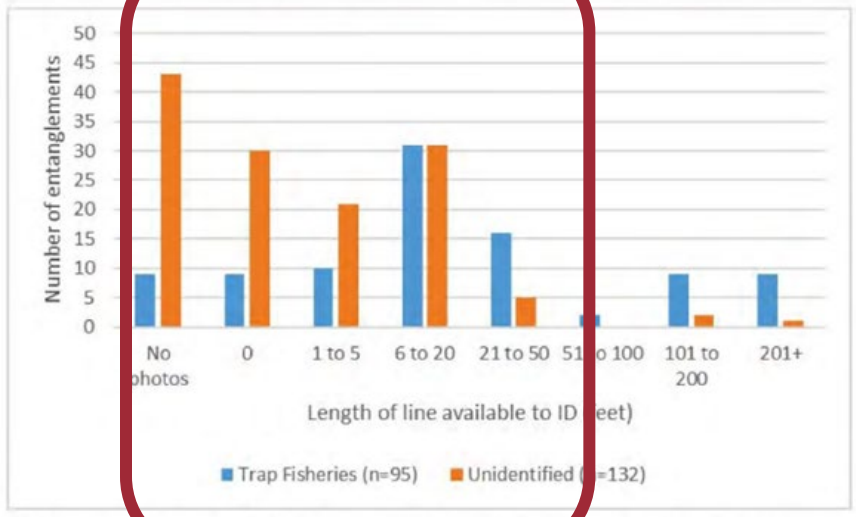


Gear Marking

Purpose

- Designed to improve NMFS' ability to identify the gear involved in an entanglement.
- No immediate direct impact on entanglement risks but help in long run.
  - Positive attributions: improve ability to target management measures more effectively
  - Negative attributions: entanglements not associated with groundfish gear

Estimated Line Available to ID



Estimates of the amount of line available to ID line marks from confirmed whale entanglements that were: (A) attributed to a pot/trap fishery vs (B) not identified to a source from 2013-2020.

NOAA FISHERIES

What Part of Gear/Line Do We See?

Area of line	Pot/trap fishery (n= 95)	Unidentified (n=132)	Total (n=227)
Top	64 (67%)	14 (11%)	78 (34%)
Upper	53 (56%)	16 (12%)	69 (30%)
Middle	27 (28%)	15 (11%)	42 (19%)
Bottom	12 (13%)	0 (0%)	12 (5%)
No photos	10 (11%)	44 (33%)	54 (24%)
Unknown	2 (2%)	24 (18%)	26 (11%)
No line	7 (7%)	26 (20%)	33 (15%)

Segment of line available to ID line marks from confirmed whale entanglements that were: (A) attributed to a pot/trap fishery vs (B) not identified to a source from 2013-2020.

Entanglements

Gear Marking Alternatives

- Buoy Marking
- Line Marking

Action alternatives are gear specific- pot and longline

Council could choose buoy marking, line marking, or both action alternatives

Buoy Marking

No Action: Fixed gear buoy must be marked with a identifying information about the owner/operator (ex. Vessel number from USCG)

Alternative 1: Gear-specific Buoy Marking

Suboption A: Gear specific large patch, shape, or letter on buoy.
Suboption B: Cattle ear tags attached to the molded eye of the buoys.

If select suboption B, Council should identify color/shape of tag. Currently propose to be static shape/color- should confirm.

Impacts of Buoy Marking

- 2013-2020: Buoys were documented ~2/3rds of entanglement reports
  - ~1/3 of the current markings were legible and could be used to identify the gear
  - Helped with identification in state Dungeness crab fishery
- Negligible expenses with buoy markings, either suboption

Line Marking

No Action: Lines are not required to be marked in any sector, for any gear authorized for use in the groundfish fishery, including pot and bottom longline gear.

Alternative 1: Gear Specific Line Marking.

A. Portion of Line Marked

B. Distance of Line Marked

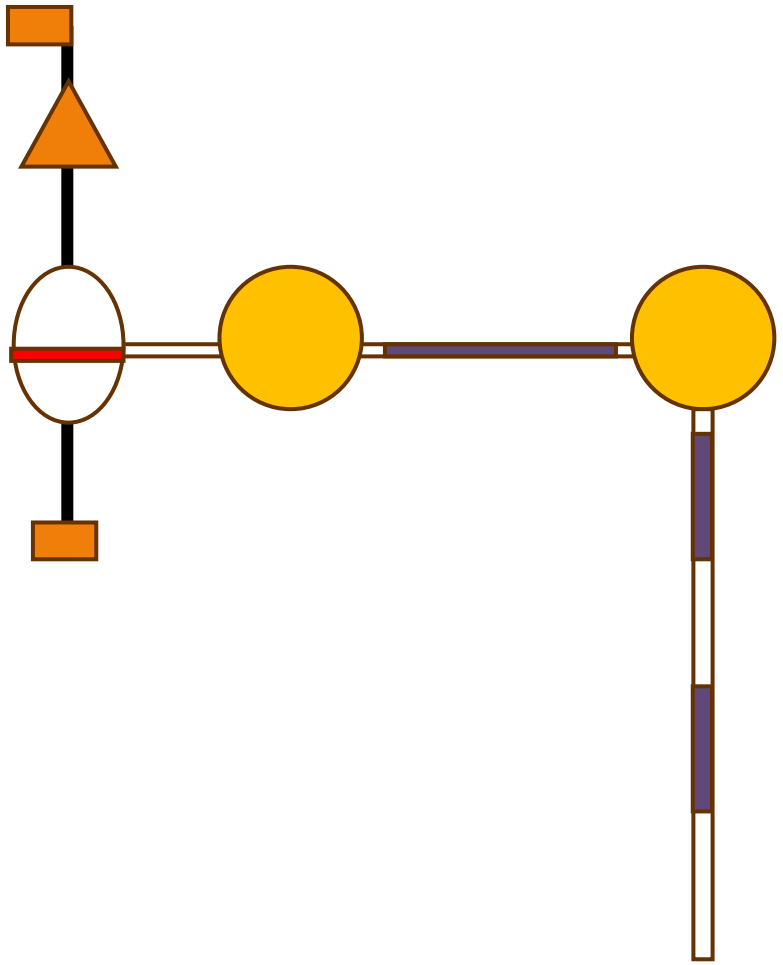
C. Method of Marking

D. Transition Period

A. Portion of Line Marked

Marking requirements apply to:

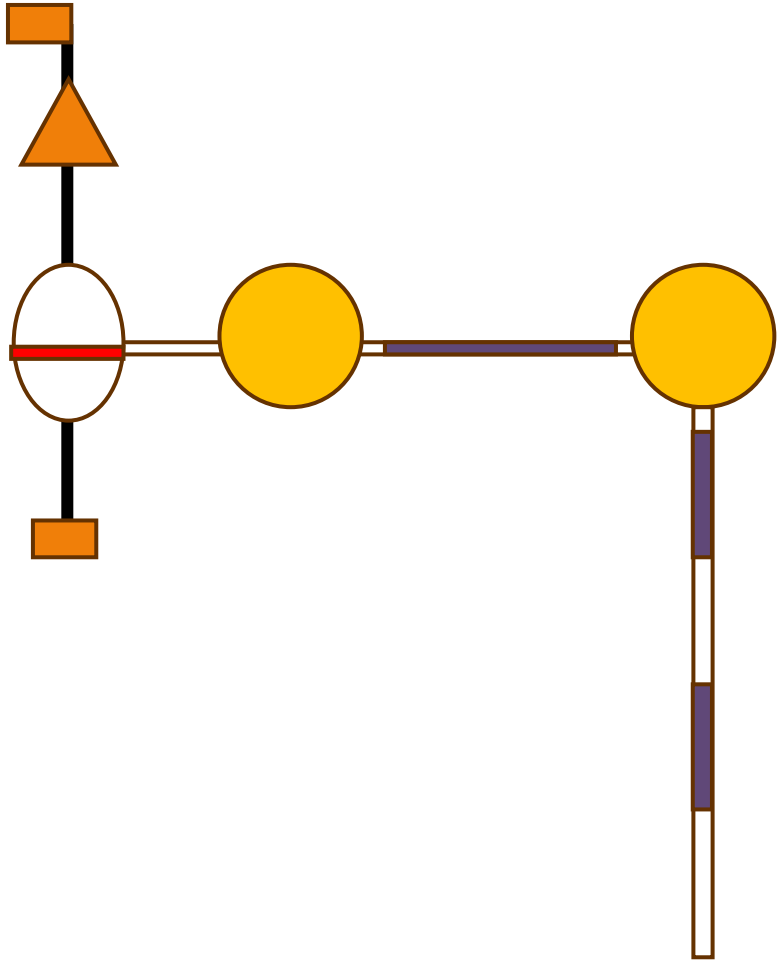
1. vertical line only
2. vertical line and surface line



B. Distance of Marking

Vertical lines marked for a specified length of the line, starting where it attaches to the main buoy closest to the ground line.

1. At least top 5 fm
2. At least top 20 fm
3. At least top 50 fm

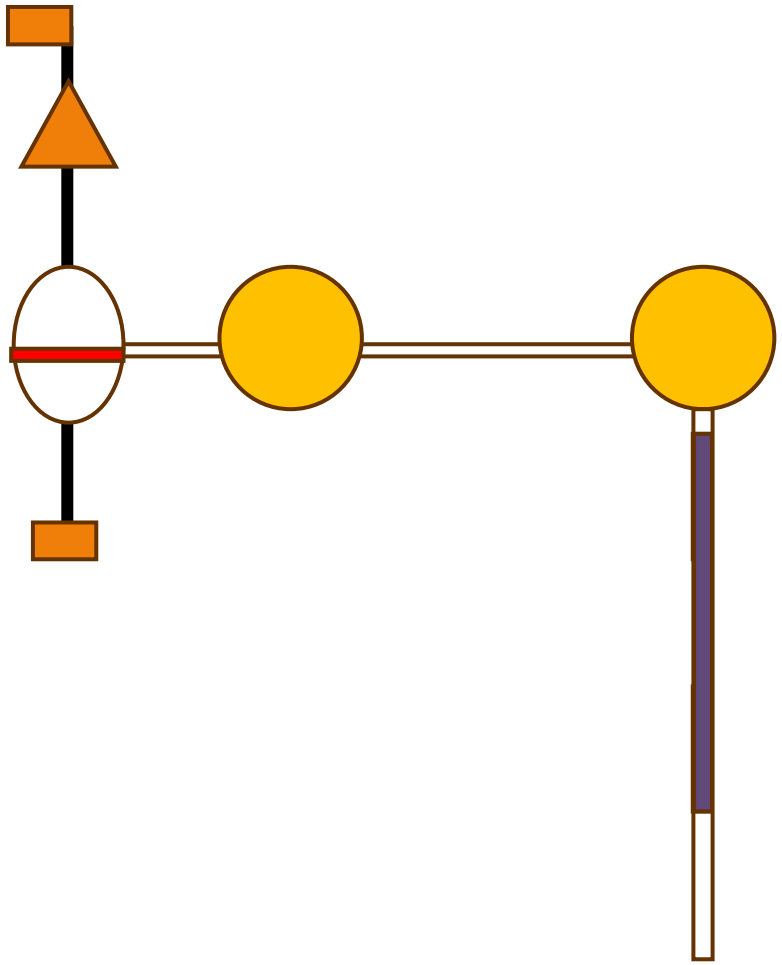


C. Method of Marking

Line marking would be via :

1. Manufactured.
2. Temporary markings – At least 12 inch mark, at specific intervals from the main buoy.
    a. no more than 5 fm unmarked line between marks
    b. no more than 10 fm
    c. no more than 20 fm
    d. no more than 50 fm

NOTE: The surface line (if chosen) would be marked with a mark of at least 36 inches in the first 2 fm.



Impacts of Line Marking

- Combination of options= cost
- Manufactured Line: $250-300 for 200 fm coil
- Temporary markings: More marks=more cost
  - Higher operational cost
  - Could be implemented quicker as materials likely more readily available

Portion of Line Marked (A)	Distance of Marking (B, fm of line)		
	5	20	50
A1: Vertical Line Only	20	5	2
A2: Vertical Line & Surface Line (0.5 fm/line)	18	4	1

D. Transition Period

1. No transition; manufactured line required upon implementation. (Not compatible with C2)
2. 5- year transition period.
3. 10-year transition period.
4. Temporary markings and manufactured line meet marking requirements indefinitely.

Groundfish Fixed Gear- Multiple Gear Type

- Majority of vessels utilize one gear type- but some utilize both gear types (Table 3-1)
- Both within sector and across sectors (LEFG/OA or IFQ/LEFG)- ~10% of total (Table 3-2)
  - LEFG to other sectors due to flexibility in gear
  - Could see change in future with LEFG follow on action to change endorsement flexibility
- Vessels would be subject to having multiple marking schemes
  - Increased complexity and costs

Cumulative Impacts with State Fisheries

- Avg of 34.6 percent of fixed gear vessels crossover into state Dungeness crab fisheries
- Dungeness crab fishery
  - Seasonal buoy tag (changing color/shape) by state
  - Distinct two-color marking scheme for lines proposed each state
- Vessels could need GF markings, crab markings, or other state fishery markings.
  - May be few participants- but impacts could be substantial

Considerations and Clarifications

Staff Proposed Clarifications

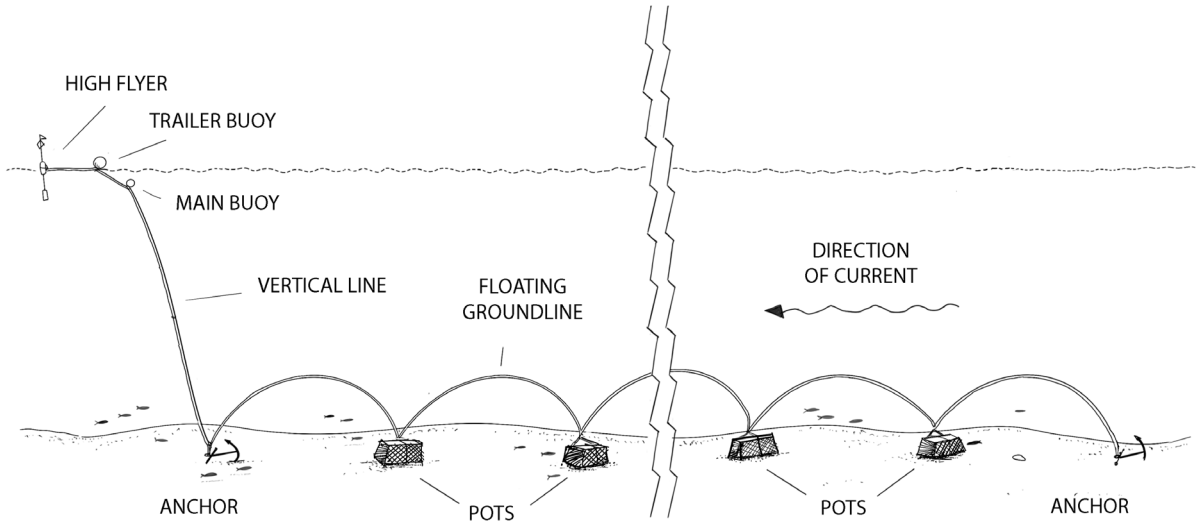
1. Temporary marks= min of 12 inch marks
2. Surface line mark would be 36 inches w/in 1st 2 fm of the main buoy.

Questions for Council Consideration Prior to Final Action (scheduled in June)

1. If buoy tags in PPA- what color/shape of buoy tags would be applied for each groundfish gear?
2. What color scheme for line marking would be applied for each groundfish gear? Would it be a single or dual color scheme?

Entanglement Risk Reduction Measures

Surface Gear Limitation



No Action: Fixed gear vessels are required to use surface gear (buoys and flag poles) attached at each terminal end of the groundline.

Alternative 1: Fixed gear vessels are only required to use surface gear (buoys and flags) attached on one terminal end of the groundline.

Impacts of Surface Gear Limitation

Benefits

- Reduce # of vertical lines in water- uncertain
- Estimated 10-30% reduction annually depending on change in behavior (based on retrospective analysis of 2019-2023)
- Potential cost savings by having fewer vertical lines to operate/replace

Costs

- Potential for gear conflicts with trawl vessels
  - Trawl vessels may be more at risk to trawl through where the set was laid with only one end of set marked
  - Sharing location information could help- decreasing risk of gear conflict
- Enforcement
  - Challenges with enforcing closed areas- not quantifiable in terms of cost

Surface Line Length Restriction

No Action: No limitations on the length of surface line for fixed gears.

Alternative 1: Limit the amount of surface line permitted for fixed gears to a maximum length of:

Suboption a: no more than 5 fathoms

Suboption b: no more than 10 fathoms

Impacts

- Negligible costs to industry under either option.
  - May economically benefit fishery participants over the long term by reducing the costs to maintain and replace fixed gear surface line.

- Alternative 1 would likely be beneficial to protected species.
  - Generally the top or upper part of the line that is entangled.

Other Items

Escape Panel Regulations

No Action: No changes to escape panel regulations.

Alternative 1: Add clarification to escape panel regulations to prohibit panel placement at bottom of pot, with exception for slinky pots (which do not have a bottom).

- Administrative action to specify placement of the escape panel in the West Coast regulations and provide clarity for slinky pots- which do not have a standard “bottom” to the pot.
- Align West Coast regulations with Alaska regulations.
- No expected costs to industry under this alternative.

Best Practices Guide

- Not an official alternative.
- BPG could include information about:
  - Methods and techniques that would be difficult to regulate, but important to fishery participants
  - Times and areas of known higher whale abundance
  - Measures in the current suite of alternatives that are not adopted under final action

Impacts
- Future benefits to industry if result in lower entanglement risk and no need for new mitigation measures
- Indirectly benefit protected species by reducing risk for entanglements.

Council Action

Adopt a Preliminary Preferred Alternative