

COASTAL PELAGIC SPECIES ESSENTIAL FISH HABITAT REVIEW: FINAL PREFERRED ALTERNATIVE

June 2023



EFH REVIEWS - OVERVIEW

- EFH is defined as “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity” (i.e., full life cycle) (50 CFR 600.10)
- “Necessary” means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem
- Guidance (NMFS Procedure 03-201-15) and EFH Regs encourage refinement of EFH designations
 - Explicitly discouraging the identification of broad geographic areas (such as the EEZ) as EFH for a single species or life stage
 - Emphasizing the need to distinguish EFH from all habitats potentially used by a species (50 CFR 600.815 (a)(1)(iv)(A))



EFH REVIEWS - OVERVIEW

- Councils and NMFS should periodically review the EFH provisions of FMPs and revise or amend EFH provisions as warranted based on available information...A complete review of all EFH information should be conducted as recommended by the Secretary, but at least once every 5 years [50 CFR 600.815(a)(10)]
- Overall objective is to ensure EFH provisions are consistent with best available information
- COP 22 describes a 2-phase process
 - Phase 1 - Evaluate available information and determine whether Phase 2 is warranted (Phase 1 Report)
 - Phase 2 - Use that information to consider changes to those EFH provisions, if warranted



EFH REVIEWS - OVERVIEW

Timeline

- April 2021: Phase 1 Report; move to Phase 2
- June 2022: Council adopted Phase 2 Action Plan
- September 2022 & January 2023: CPSMT Mtgs. Followed by additional evaluation
- April 2023: Council adopted Range of Alternatives & Preliminary Preferred Alternative
- June 2023: Final Preferred Alternatives
 - Alternatives doc
 - EFH Appendix
 - Proposed FMP language



Key Issues and Decisions

- New species/assemblage groupings
- New maps
- New EFH Appendix
 - Substantial amount of new scientific information
 - Compiles EFH info into one EFH Appendix
- Market squid spawning HAPC considered but not included in ROA
- Fishing impacts
- Non-fishing impacts



Alternatives

Alternative 1: New EFH Appendix

Alternative 1a: No Action

Alternative 1b: Adopt New EFH Appendix

- Five species/assemblage groups (see Table 1)
- Identification and Description, spatial extent, and maps
- Fishing impacts
- Non-fishing impacts and associated conservation recommendations
- Life history summaries, including prey species
- Research and Information Needs



Proposed New Species Groupings

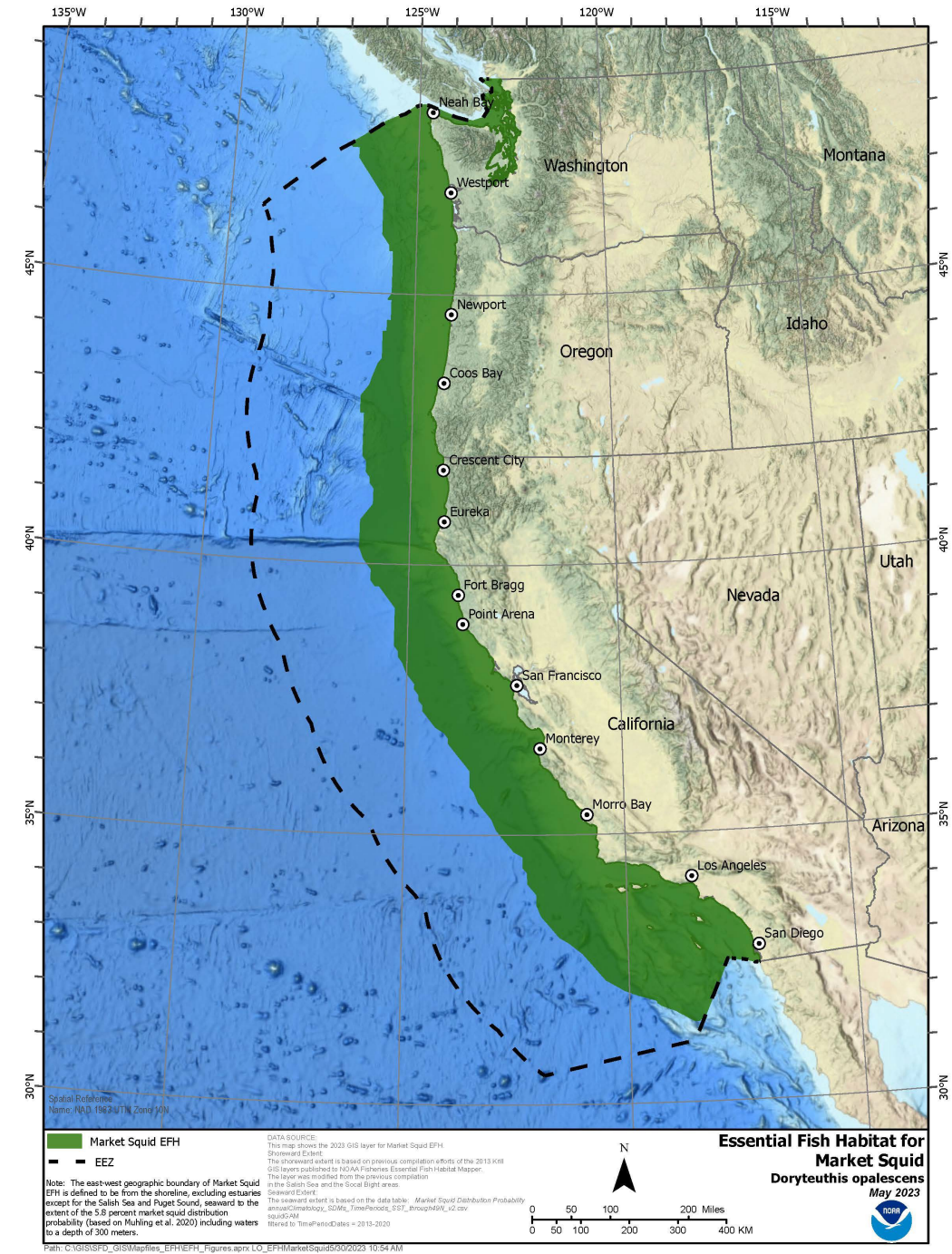
| |
|---|
| <u>Species Groupings</u> |
| Finfish |
| Sardine, P. mackerel, N. anchovy, J. mackerel |
| Market squid |
| Krill or Euphausiids (Including all species in West Coast EEZ) |
| <i>Euphausia pacifica</i> |
| <i>Thysanoessa spinifera</i> |
| Other krill (all krill in West Coast EEZ other than <i>E. pacifica</i> and <i>T. spinifera</i>) |



Market Squid

U.S. EEZ areas >5.8% distribution probability (includes Salish Sea/Puget Sound; excludes other estuaries)

- Water column to 300m depth
- Where SST is 7⁰C – 24⁰C
- Includes soft/sandy substrates 13-93m for spawning and egg capsules



Market Squid EFH
- - - EEZ

Essential Fish Habitat for Market Squid
Doryteuthis opalescens
May 2023

Note: The east-west geographic boundary of Market Squid EFH is defined to be from the shoreline, excluding estuaries except for the Salish Sea and Puget Sound, seaward to the extent of the 5.8 percent market squid distribution probability (based on Muhling et al. 2020) including waters to a depth of 300 meters.

DATA SOURCE:
This map shows the 2023 GIS layer for Market Squid EFH Shoreward Extent.
The shoreward extent is based on previous compilation efforts of the 2013 KIOIS GIS layers published by NOAA Fisheries, Essential Fish Habitat Mapper.
The layer was modified from the previous compilation in the Salish Sea and the Social Strait areas.
Shoreward Extent
This seaward extent is based on the data table: Market Squid Distribution Probability annualClimatology_SCMs_TimePeriods_SST_IncropH20N_V2.csv
sqidsEFH
Retrieved to: TimePeriodDates = 2013-2020

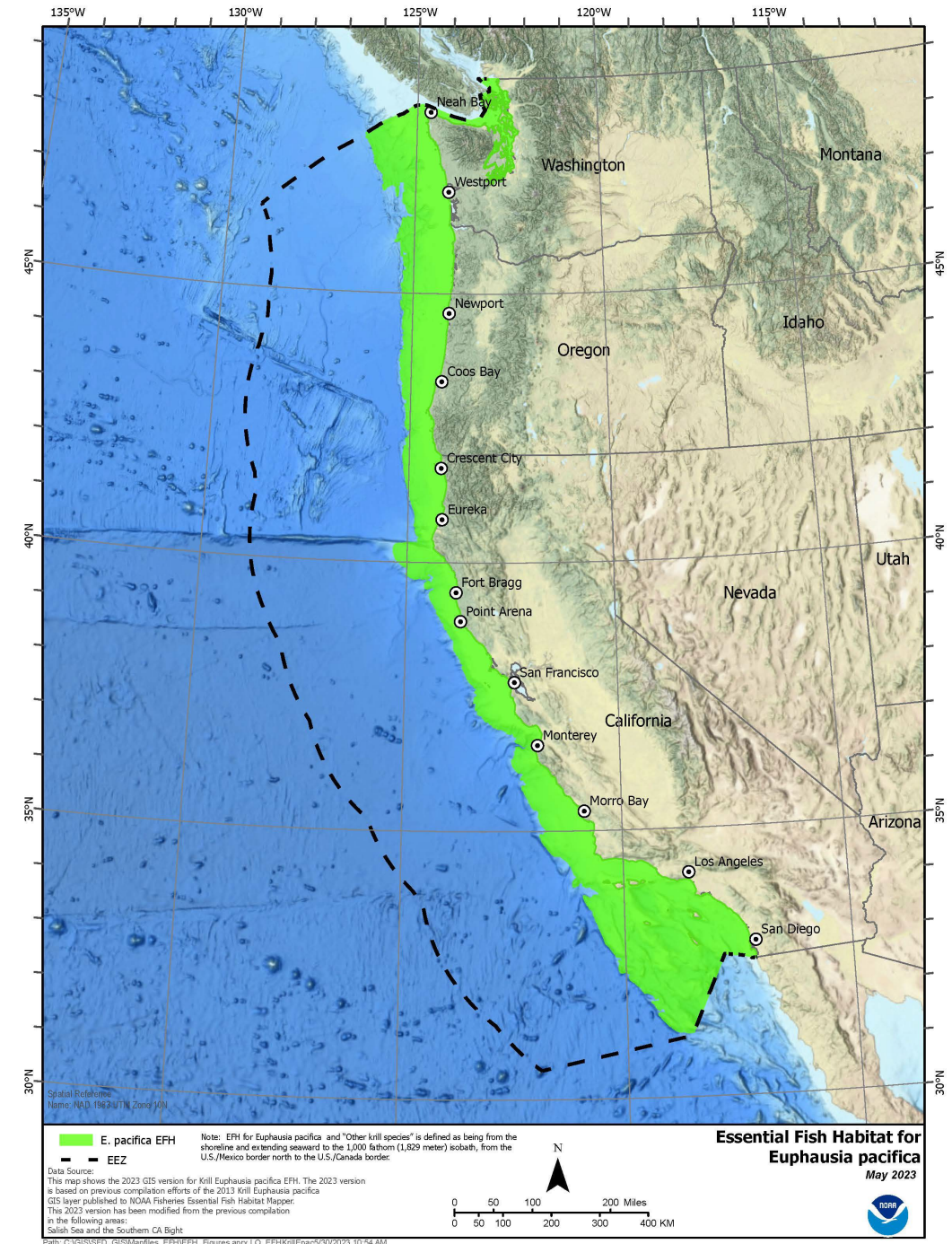
Scale: 0 50 100 200 Miles / 0 50 100 200 300 400 KM

Path: C:\GIS\SPD_GIS\Mapfiles_EFH\EFH_Figures.aprx_LO_EFHMarketSquid5/30/2023 10:54 AM

Euphausia pacifica

West Coast EEZ to 1000fm isobath, to 400m depth

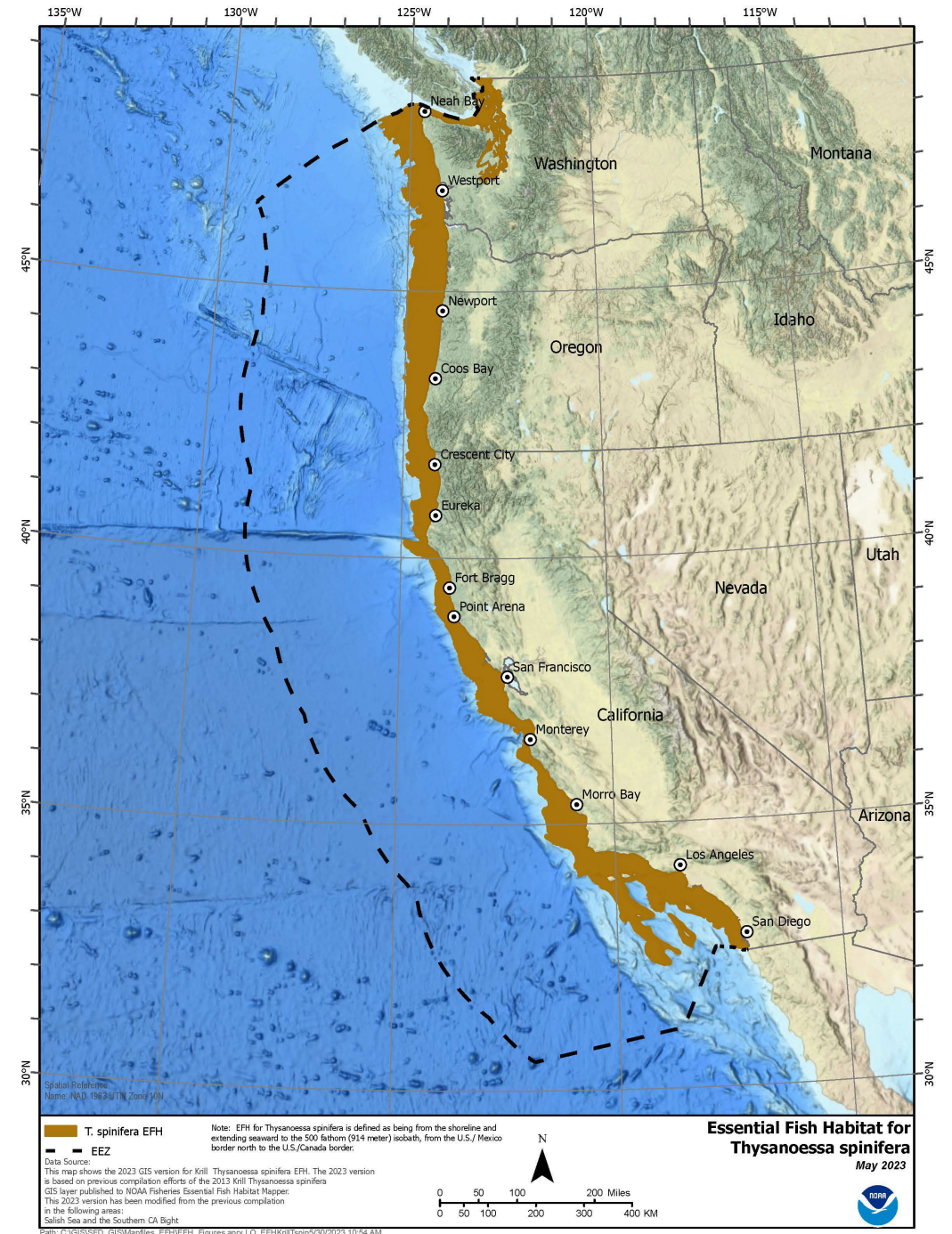
- Pelagic
- Associated with shelf break, canyons, seamounts
- Includes Salish Sea/Puget Sound; excludes other estuaries



Thysanoessa spinifera

West Coast EEZ to 500m isobath; to 100m depth

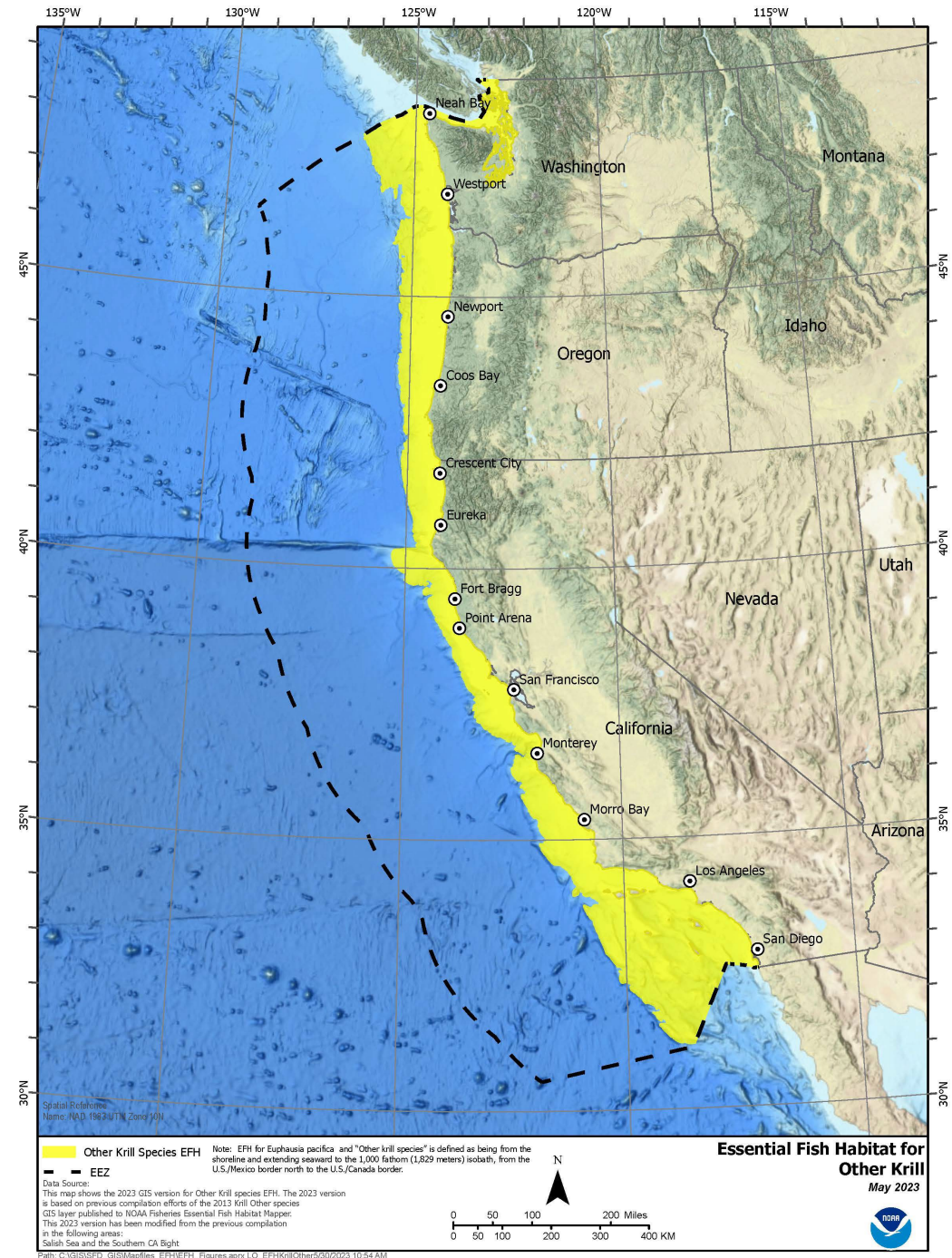
- Pelagic
- Associated with shelf break, canyons, seamounts
- Includes Salish Sea/Puget Sound; excludes other estuaries



Other Krill

West Coast EEZ to 1000fm isobath, to 400m depth

- Pelagic
- Associated with shelf break, canyons, seamounts
- Limited information on individual krill species
- Includes Salish Sea/Puget Sound; excludes other estuaries



Fishing Impacts

Few potential impacts:

- Prey removal
- Potential impacts to benthic habitats
- Conclusion: no more than minimal or temporary impacts to CPS EFH from fishing activities or gear



Non-Fishing Impacts

Currently in CPS FMP

- Dredging
- Dredge material disposal/fill
- Oil and gas exploration
- Water intake
- Aquaculture
- Wastewater discharge
- Discharge of oil/hazardous substances
- Coastal development impacts

Kiffney et al. 2022

- Climate change
- Upland and urban development
- Road construction and operation
- Stormwater and urban runoff
- Silviculture

- Dam operations and removal
- Mineral mining
- Oil extraction, shipping, and production
- Energy-related activities (wave/tidal, OSW, cables & pipelines, LNG)
- Agriculture and grazing
- Shoreline and bank stabilization
- Marine and freshwater transportation
- Coastal development
- Dredging
- Aquaculture
- Overwater structures
- Water intake and discharge facilities
- Pile driving and removal
- Noise pollution



Summary of Proposed Modifications

- Refined species/assemblages
 - Market squid EFH pulled out of finfish complex
- Updated non-fishing impacts and conservation measures
- Updated life history summaries and references
- Consolidate EFH info into new FMP Appendix
- Research and information needs
- *No substantial changes to Krill EFH, finfish EFH, fishing impacts and conservation measures*



Council Action

- 1) Adopt Final Preferred Alternative
 - EFH Appendix
 - FMP language
- 2) Provide additional guidance



Thank You:

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Questions?

