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# 2022 EFH 5-Year Review Plan

Habitat Conservation Division, NMFS Alaska Region &  
Alaska Fisheries Science Center



# Council's EFH Roadmap - 10 Components

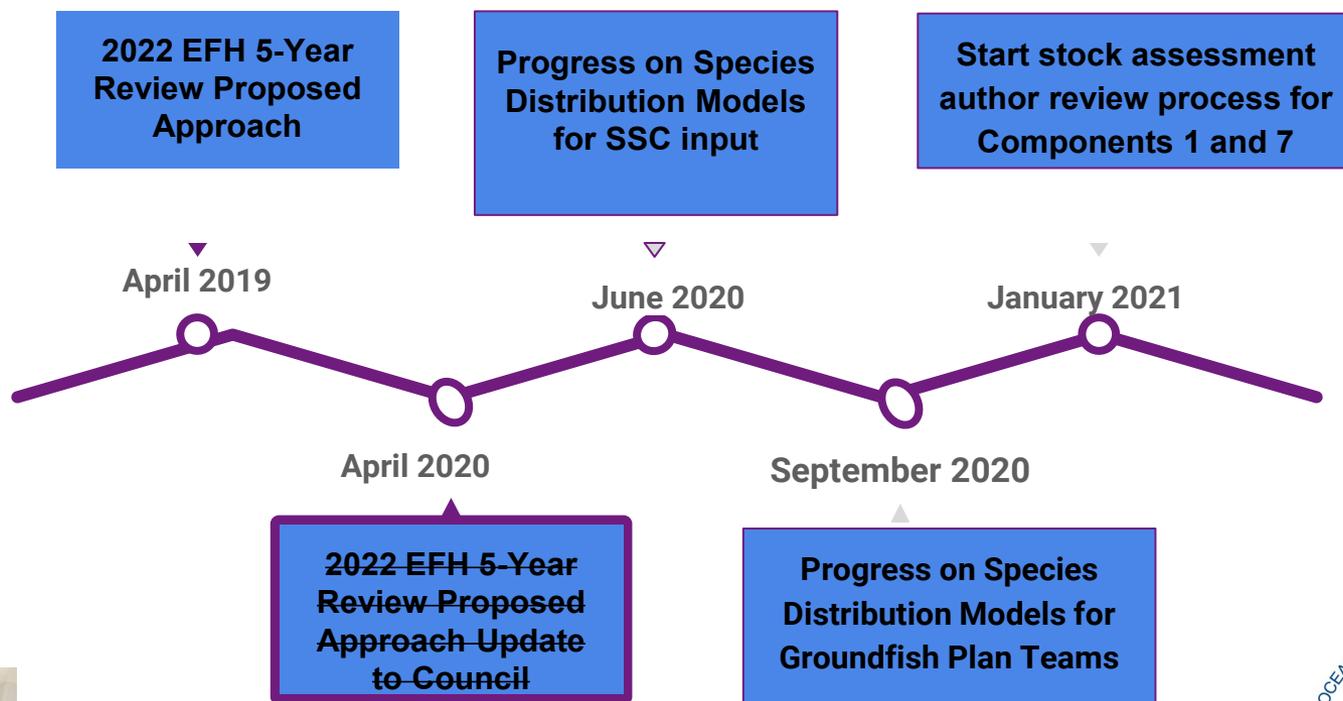
We have prioritized the six EFH components in bold:

- 1. EFH descriptions and identification (and MAPS!)**
- 2. Fishing activities that may adversely affect EFH**
3. Non-MSA fishing activities that may adversely affect EFH
- 4. Non-fishing activities that may adversely affect EFH**
5. Cumulative impacts analysis
- 6. EFH conservation and enhancement recommendations**
- 7. Prey species list and locations**
8. Habitat Areas of Particular Concern (HAPC) identification
- 9. Research and information needs**
10. *Review EFH every 5 years.*

**This information will be presented to the Council in a summary report in June 2022 (T).** If the Council chooses to update its FMPs, FMP amendments will be prepared along with the appropriate analytical documents through the normal Council process.



# Timeline - Work to date



# 1. EFH Descriptions and Identification

**For the 2022 EFH Review, studies that have modernized the SDM approach of the 2017 Review with new data, methods, and tools will provide new EFH maps.**

- We presented these studies, including data, methods, and preliminary results examples to SSC in June 2020.
- SSC provided input to strengthen this work that the studies have taken into account.
- SSC input and response is provided in the document starting on page 5.
- The body of new component 1 information in development is innovative and inclusive of many contributors that are developing new EFH information for Council managed species in the Gulf of Alaska, Bering Sea, Aleutian Islands, and Arctic.
- This work has potential to update the EFH descriptions and maps through new and best available science, leading to new and revised
  - Level 2 (habitat-related density or abundance) and
  - Level 3 (habitat-related vital rates).



# 1. EFH Descriptions and Identification

**For the 2022 EFH Review, studies that have modernized the species distribution modeling approach from the 2017 Review with new data, methods, and tools will provide:**

- New EFH Level 2 and 3 descriptions and maps for life stages of groundfish in the Gulf of Alaska, Bering Sea, and Aleutian Islands for the *GOA and BSAI FMPs*.
- New EFH Level 2 descriptions and maps for life stages of crabs in the Bering Sea and Aleutian Islands for the *Crab FMP*.
- New EFH Level 2 and 3 descriptions and maps for pelagic early life history stages of sablefish and Pacific cod in the Gulf of Alaska for the *GOA FMP*.
- New EFH Level 2 and 3 descriptions and maps for Arctic cod, saffron cod, and snow crab life history stages for the *Arctic FMP*.



## 2. Fishing Activities that may affect EFH

At the conclusion of the 2017 EFH 5-year Review, the SSC provided several recommendations related to the Fishing Effects (FE) model. In response:

- Output from the FE model is included as an indicator (habitat disturbed) in yearly Ecosystem Status Reports
- A sensitivity analysis is now available as a standard FE output
- Core EFH (CEA) maps will be available to the public
- Updated gear descriptions, gear impact, and recovery parameters
- *A seascape scale habitat model to support management of fishing impacts on benthic ecosystems* (Smeltz et al. 2019)

### For the 2022 EFH Review

- Run the FE model using updated fishing effort data and metrics.
- Stock assessment authors will examine trends in life history parameters and the amount of disturbed habitat in the CEA for each species using the 2017 FE assessment methodology to investigate the potential relationships between fishing effects and stock production.



## 4. Non-Fishing Activities that may affect EFH

*Impacts to Essential Fish Habitat from Non-Fishing Activities in Alaska: A Document Helping Mitigate and Reduce Impacts to EFH*

### The What

- This document represents the current understanding of how anthropogenic influences impact EFH.
- Substantially revise sections - Climate Change, Mining.
- Add several sections - Hydropower, Aquaculture, Vessel Scuttles.



### The How

- Update all sections with current references/research that improve understating of impacts to EFH, and/or support **conservation recommendations**.
- The HCD review team is made of subject matter experts working in chapter groups to review, write and edit these updates.



# 7. Prey Species Habitat

## Review and Update FMP Information

- Prey species are an important component of feeding habitat
- Review is focused on identifying prey species data gaps to target information development (e.g., nearshore prey species habitat)
- Stock assessment authors will have the opportunity to review and recommend revisions to prey species habitat information in the FMPs
- Improving prey habitat information in the FMPs will allow NMFS to make better informed habitat conservation recommendations in EFH consultations
- A framework for incorporating prey species habitat information in stock assessments (e.g., Ecosystem and Socioeconomic Profiles) as with component 1.



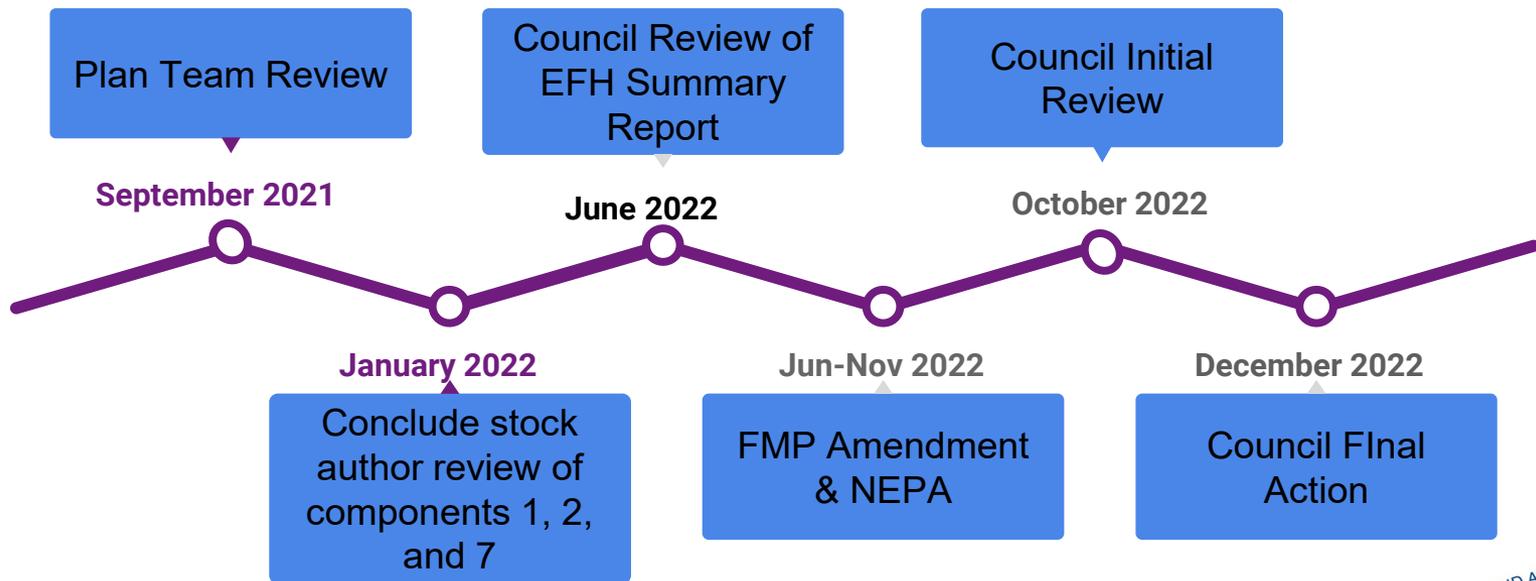
## 9. Research and Information Needs

### Intended timeline to update the *Alaska EFH Research Plan*

- Habitat and Ecological Processes Research (HEPR) plans to lead a process to develop a new Alaska EFH Research Plan for 2023-2027.
- HEPR envisions inviting two participants from the AKRO and four from the AFSC with input from AFSC and AKRO.
- Write plan in 2022, intended by Oct. 2022 (for potential feedback from Council), and published as a Tech. Memo in 2023.
- We envision revisiting 5 long-term research goals, and identifying new emphasis areas.



# Timeline - Future Planning



# Council Action

We are seeking input on the components currently prioritized for review and revision:

- Develop and present new data, methods, SDM, maps, and habitat information (component 1);
- Run Fishing Effects model with updated fishing data and new maps (component 2);
- Update EFH conservation recommendations and analysis for non-fishing impacts to EFH (components 4 and 6);
- Refine prey habitat information in the groundfish FMPs (component 7);
- Update research priorities and information needs (component 9).

The Council may wish to identify priorities for HAPC consideration and request proposals for specific sites for HAPC inclusion (component 8).

