

# Welcome to the Local Knowledge, Traditional Knowledge, and Subsistence Taskforce meeting!

- Please remember to mute your phone or computer when you are not speaking.
- Taskforce members may choose to turn on their webcams. Members of the public are asked to leave their webcams off.
- Public testimony will be taken at the end of the day.
- For individual tech support, email [npfmc.admin@noaa.gov](mailto:npfmc.admin@noaa.gov)



# Local Knowledge, Traditional Knowledge, and Subsistence Taskforce

January 20, 2022

Co-Chairs:

Sarah Wise, [sarah.wise@noaa.gov](mailto:sarah.wise@noaa.gov)

Kate Haapala, [kate.haapala@noaa.gov](mailto:kate.haapala@noaa.gov)

# Today's agenda

1. Welcome, introductions, how are people doing?
2. Bering Sea Fishery Ecosystem Plan
3. Search engine
4. Protocol
  1. Exercise 1
5. Public comment
6. Wrap up and prepare for tomorrow







# *Welcome!*

- **Introductions**
- **Questions, comments, reflections**

## Members

- Mr. Toby Anungazuk Jr. (Golovin)
- Dr. Rachel Donkersloot (Coastal Cultures Research)
- Dr. Kate Haapala (Council staff)
- Ms. Bridget Mansfield (AKRO)
- Dr. Robert Murphy (APU)
- Ms. Darcy Peter (Woodwell Climate Research Center)
- Dr. Julie Raymond-Yakoubian (Kawerak)
- Mr. Richard Slats (Chevak)
- Mr. Simeon Swetzof (St Paul)
- Ms. Alida Trainor (ADFG Subsistence Division)
- Dr. Sarah Wise (Alaska Fisheries Science Center)

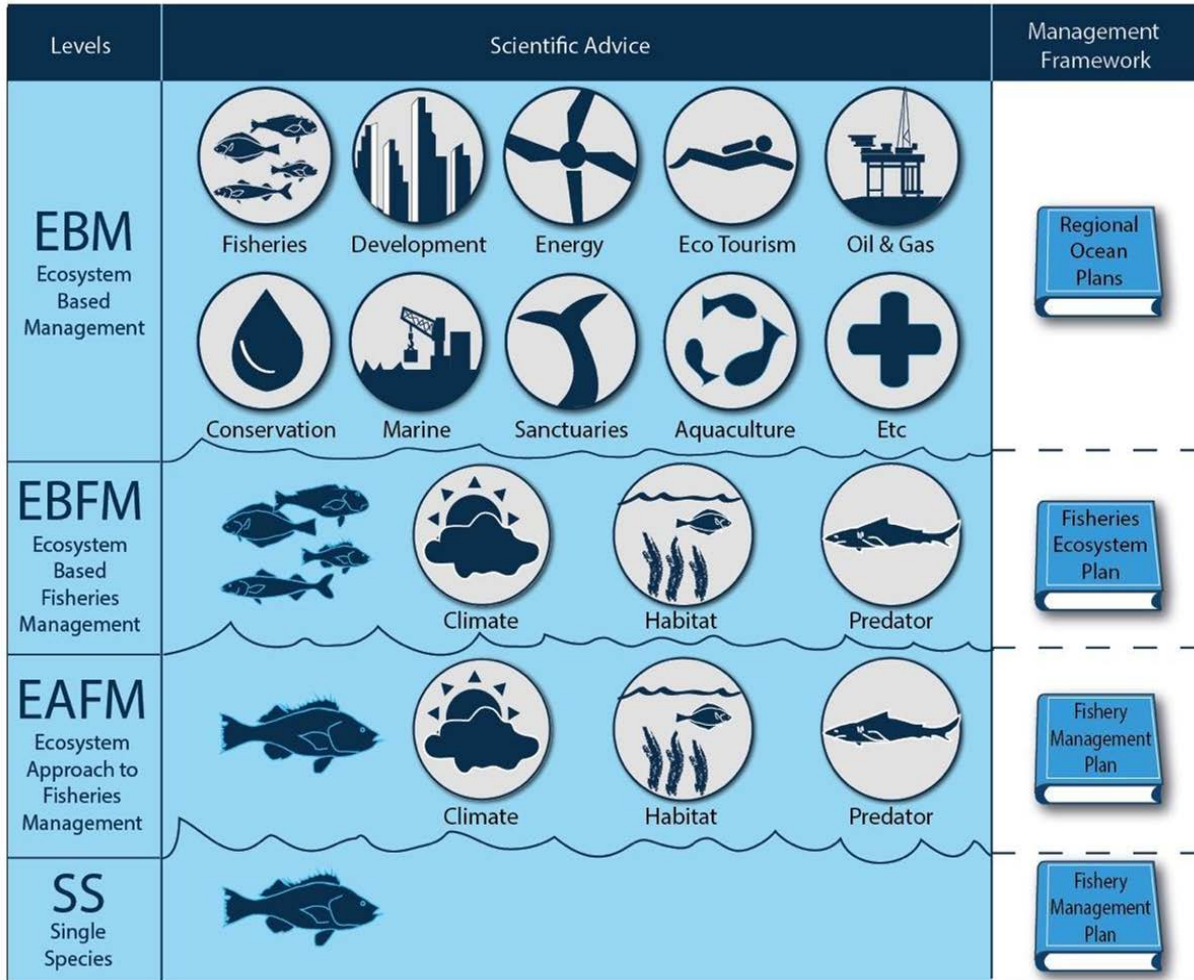
# Bering Sea Fishery Ecosystem Plan

- Strategic planning document adopted by the Council in December 2018
- Action informing but not action forcing
- Management action continues to occur through the Fishery Management Plans
- Fishery Ecosystem Plans are a method for putting ecosystem-based fishery management (EBFM) into action





# Ecosystem-based fishery management



- Considers interactions among ecological, economic, social and cultural components of a system
- Traditional fisheries management has focused on one species in isolation
- But increased understanding of ecosystem processes and interactions has driven more effective and holistic management strategies



**NOAA FISHERIES**



## Why did the Council create an FEP?

- Serve as a **communication tool** for ecosystem science and Council policy
- Create a **transparent public process** for the Council to identify ecosystem values and management responses
- Provide a **framework for strategic planning** that would guide and prioritize research, modeling, and survey needs
- **Identify connected Bering Sea ecosystem components**, and their importance for specific management questions
- Assess Council management with respect to ecosystem-based fishery management best practices, and **identify areas of success and gaps** indicating areas for improvement on a regular basis
- Provide a **framework for considering policy options** and associated opportunities, **risks, and tradeoffs** affecting FMP species and the broader Bering Sea ecosystem
- **Build resiliency of Council management strategies**, and options for responding to **changing circumstances**



# Five Action Modules approved in the FEP

*first two initiated  
by the Council in  
December 2018*

Climate change

Local, Traditional Knowledge /  
Subsistence

EBFM gap analysis

Interdisciplinary conceptual  
models

Research





# LK, TK, and subsistence action module

- Bering Sea Fishery Ecosystem Plan explicitly includes human dimensions
- Purpose of this Action Module and Taskforce is to work towards formalizing the use of LK, TK and subsistence information alongside natural and other social science
- Opportunity for the Council to operationalize plans for strengthening partnerships with LK and TK holders and subsistence harvesters

## 4.2 Develop protocols for using LK and TK in management and understanding impacts of Council decisions on subsistence use

<p><b>1. Synopsis</b> <i>including how it will be accomplished</i></p>	<p>This Action Module has two parts. In Part A, methods for integrating/incorporating LK and TK into Council processes in the short- to long-term will be addressed. In Part B, a methodology will be developed for how the Council can consider potential impacts to subsistence species, habitats that support those species, and access to subsistence resources. To develop this Action Module, the Council will strengthen and broaden ties with Alaska Native organizations, organizations that are familiar with subsistence data, non-economic social scientists, and agency scientists. Through collaboration with LK, TK, and subsistence experts, a protocol will be developed to ensure Council analysts know how to review and utilize LK, TK, and subsistence information successfully in analyses.</p>
<p><b>2. Purpose</b> <i>relationship to the BS FEP's strategic objectives</i></p>	<p>This Action Module is most responsive to BS FEP Research Objective 4, which links directly to Process Objective 6. As relates to Part A, the Council is interested in strengthening relationships with bearers of LK and TK and better capturing LK and TK in Council analyses. As relates to Part B, the Council is interested in developing a process for better understanding and considering how removals from commercially important fish stocks may affect subsistence resources important to Alaska Native communities or affect resource use patterns of those communities.</p>
<p><b>3. How it will inform the Council process</b></p>	<p>This Action Module will improve Council decision-making by giving the Council access to a more complete picture of the ecosystem and the potential impacts of their actions. This Action Module aims to provide a roadmap for operationalizing LK, TK and potentially processes like Co-Production of Knowledge (CPK) in the short- to long-term, as well as formulate a method for assessing the likelihood a given Council action may affect subsistence resources or the ability of users to access those resources. This project will guide the use of subsistence data in analyses and is expected to help the Council be increasingly responsive to National Standards 2 and 8.</p>
<p><b>4. How it will be integrated in the Council process</b></p>	<p>This Action Module is meant to positively inform the overall Council process and decision-making structure. The completed work will provide a framework and data for analysts to consider ways to make better use of non-economic social science data in the form of LK and TK along with outcomes from engagement actions (e.g., CPK processes), as well as whether fishery activities or changes in regulation are likely to impact subsistence resources or patterns of subsistence use. It is anticipated that incorporating subsistence data in to the Council process would involve adding a section to future analyses. If included in the discussion paper and preliminary draft stages, it is expected that subsistence data would be considered during development of alternatives for specific actions. Impacts to subsistence resources or use will thus be considered throughout the Council process.</p>
<p><b>5. Estimate of time and staff resources</b></p>	<p>This is expected to be an ongoing process to cultivate relationships, with short- to medium-term goals including gathering existing data about specific issues. Once protocols for reviewing and using LK, TK, and subsistence use information are in a format that can be accessed and used by analysts, there may be limited commitment of Council time or staff resources to incorporate that information into analyses. Regular staff time would be required to maintain ongoing relationships and update descriptions in the BS FEP.</p>
<p><b>6. Plan for public involvement</b></p>	<p>As described above, the Council is reliant on partnering with other organizations to create an environment conducive to processes like CPK, as well as identifying and using subsistence data in analyses. It is anticipated that LK, TK, and subsistence experts would need to be actively involved on the development team for this Action Module. Outreach to partner agencies and their constituents as well as ongoing collaboration with Tribes and communities throughout the Bering Sea region will be important in verifying the data, products, and methods to use in management.</p>





# Reminder of Taskforce goals and objectives

# Reminder of Taskforce's goals

*In January 2020, the Council adopted two overarching goals:*

**Goal 1:** To create processes and protocols through which the Council can identify, analyze, and consistently incorporate TK and LK, and the social science of TK and LK, into Council decision-making processes to support the use of best available scientific information in Ecosystem-based Fishery Management (EBFM).

**Goal 2:** To create a protocol and develop recommendations through which the Council can define and incorporate subsistence information into analyses and decision-making.





# Reminder of Taskforce's objectives

*In January 2020, the Council adopted five objectives:*

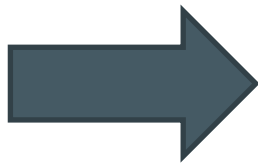
1. Identify and define sources of LK and TK, and the social science of LK and TK, to support the use of best scientific information available in Council decision-making.
1. Provide guidance and analytical protocols to the Council on how to evaluate and analyze LK and TK, and the social science of LK and TK.
1. Provide guidance on how LK and TK, and the social science of LK and TK, could be incorporated into Council decision-making processes.
1. Identify the relevant and appropriate sources of subsistence data and information to use in Council decision-making processes.
1. Provide guidance on how subsistence data and information can be incorporated into Council decision-making processes.





## PROJECT TIMELINE

		2020			2021			2022			2023		
		Jan	Apr	Nov	Jan	Apr	Nov	Jan	Apr	Nov	Jan	Apr	Nov
Workplan	Set goals and objectives	█											
	Update document with definitions		█	█									
Glossary of terms	Identify set of key terms used by LKTKS Taskforce	█	█										
	Consensus on definitions and product completion			█									
Identify Sources of LKTKS	Develop search engine for sources		█	█	█	█							
	Identify narrative sources of non published sources		█	█	█	█							
LKTKS Onramps	Initial review of potential institutional interfaces for LKTKS information		█										
	Review conceptual model for tribal engagement			█									
	Review and reach consensus on other institutional interfaces				█								
	Review, evaluate, and update with case study							█	█				
Case Study	Case study identification, Norton Sound Red King Crab		█										
	Case study development			█	█								
	Conducting case study				█	█	█						
	Results, consensus and write up								█				
LKTK Protocol Development	Identify guidelines and initial outline			█									
	Review Draft				█								
	Review Draft					█	█						
	Consensus and finalize							█	█				
Subsistence Protocol Development	Identify guidelines and					█							
	Review Draft						█						
	Review Draft							█					
	Consensus and finalize								█	█			
Final Report to Council	Draft									█			
	Review										█		
	Presentation											█	



# Search Engine Update



# Purpose

Demo the search engine

Taskforce members are encouraged to ask questions and provide feedback.

The search engine tool is living, meaning it can be modified, added to, etc.

*Goal is to have this tool go live after our meeting.*

# Background

- *How can the Taskforce develop processes for identifying and defining sources of LK, TK, the social science of LK and TK, and subsistence information?*
- Purpose is to provide a resource to analytical staff, researchers, decision-makers and the public to more easily identify sources of LK, TK, the social science of LK and TK and subsistence
- Identified hundreds of sources of published or publicly available papers and reports related to LK, TK, or subsistence relevant to fisheries management and the North Pacific

*When the fish come, we go fishing:*  
Local Ecological Knowledge  
of Non-Salmon Fish Used for Subsistence  
in the Bering Strait Region



Subsistence Use and Knowledge of  
Salmon in Barrow and Nuiqsut, Alaska

Principal Investigator  
Courtney Carothers  
School of Fisheries and Ocean Sciences  
University of Alaska Fairbanks

Graduate Student Researchers  
Shelley Cotton, Katie Moerlein





Find the search engine here: <https://lktks.npfmc.org/>



Additional suggestions for sources of local knowledge (LK), traditional knowledge (TK), the social science of LK and TK, as well as information about the subsistence way of life can be sent to [npfmc.lktks@gmail.com](mailto:npfmc.lktks@gmail.com)

All fields

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Title

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Author

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Year From  Year To

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Keywords

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Groups

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Methods

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Species

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Region

Title ↑	Author	Year	Link
Kusquqvagmiut Neqait: Fish and Food of the People of the Kuskokwim	Fienup-Riordan, Ann, Alice Rearden, and Marie Meade	2019	▼
Nunamta Ellamta-Ilu Ayuqucia/What Our Land and World are Like: Lower Yukon History and Oral Traditions	Rearden, Alice	2014	▼
'Always Taught Not to Waste': Traditional Knowledge and Norton Sound/Bering Strait Salmon Populations. 2015 Arctic-Yukon-Kuskokwim Sustainable Salmon Initiative Project 1333 Final Product.	Kawerak, Inc., Brenden Raymond-Yakoubian, and Julie Raymond-Yakoubian	2015	<a href="#">Link</a> ▼
'We Monitor by Living Here': Actualization of a Social-Ecological Monitoring Program Grounded in Gitga'at Harvesters' Observations and Knowledge	Thompson, Kim-Ly	2018	<a href="#">Link</a> ▼
'What are you going to do, Protest the Wind?': Community Perceptions of Emergent and Worsening Coastal Erosion from the Remote Bering Sea Community of St. Paul, Alaska	Tran, Jessica, Lauren M. Divine, and Leanna R. Heffner	2020	<a href="#">Link</a> ▼
"A Bitter Taste of Fish: The Temporality of Salmon, Settler Colonialism, and the Work of Well-Being in a Yupiaq Fishing Village	Voinot-Baron, William	2020	<a href="#">Link</a> ▼
"A Preliminary Baseline Study of Subsistence Resource Utilization in the Pribilof Islands	Veltre, Douglas W., and Mary J. Veltre	1981	<a href="#">Link</a> ▼
"Alaska Native Subsistence: A Matter of Cultural Survival	Thornton, Thomas F	1998	<a href="#">Link</a> ▼
"Norton Sound Winter Red King Crab Studies, 2000	Brennan, Elisabeth L	2000	<a href="#">Link</a> ▼
"The Last Cowboys: Keeping Open Access in the Aleut Groundfish Fishery of the Gulf of Alaska	Reedy-Maschner, Katherine	2019	<a href="#">Link</a> ▼

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# *Taskforce notes*



# *Protocol*



# Purpose

Re-introduce the protocol

What is the plan moving  
forward?



# Background

*Reflecting the Taskforce's goals as adopted by the Council in January 2020:*

- The protocol provides guidance for identifying, analyzing, and incorporating LK, TK, the social science of LK and TK, and Subsistence expertise and information into the decision-making process
  - o Main element of our work
  - o The Council could choose to adopt this protocol to inform its decision-making process



# Reminder of the guidelines

*In March 2020, the Taskforce agreed on the following seven guidelines:*

1. Understand key concepts and definitions related to LK, TK, and subsistence.
2. Recognize and respect the role of multiple knowledge systems
3. Accessing and using sources of LK, TK, the social science of LK and TK, and subsistence information.
4. Engage in early and frequent communication with all relevant entities
5. Acknowledge difference in opportunities for capacity among relevant entities.
6. Be aware of and adhere to the protocols that entities have established for sharing information and making decisions.
7. Ensure appropriate capacity for accessing and using LK, TK, the social science of LK and TK, and subsistence information.



# Purpose of the guidelines

*Seven high-level guidelines that are action-informing and intended to:*

1. **Improve understandings** of LK, TK, and subsistence information based on the subsistence way of life.
  1. Provide foundational information on the role of LK and TK in Federal fishery management.
2. **Provide guidance** to analytical staff and researchers engaging with diverse forms of knowledge and knowledge holders in analytical or research efforts:
  1. **Establish principles of engagement** with LK and TK experts, communities, Tribes, and other relevant entities on issues related to LK and TK.
3. **Provide analytical guidance to more richly, accurately, and systematically include** LK, TK, the social science of LK and TK, and subsistence information into the Council's decision-making process.



# Setting the stage

- No one component of this protocol should be separated from the whole.
- Cultural sensitivity and awareness are at the core of this work.
- The protocol is intentionally broad in its scope, covering the entirety of the Council's process so it can be useful to all the key entities in the Council's process (i.e., staff, Council members, Alaska Fisheries Science Center staff, Regional Office staff, and more).
- The protocol is specific to the Bering Sea region and fisheries management.
  - While certain elements might be of use in other management contexts, the Taskforce would caution against wholesale application to other decision-making contexts.
- The protocol is action-informing.
  - By "action-informing" we mean the guidelines and associated content are intended to inform Council members, staff, and others working in this process and not regulate or mandate Council action.





# What are we working on?

At this meeting, the purpose of our work related to the protocol is to:

1. Continue to get **input, ideas, and feedback** regarding the protocol's main content, structure, gaps, etc.
  - a. It is critical that the diverse perspectives of this Taskforce are included
  
1. Protocol 'exercises'

*Moving forward:*

1. Fall 2022 meeting, revisit updated protocol based on input from this meeting.
2. January 2023 meeting, review final protocol



# Key concepts



# *Taskforce notes or questions*





# *Exercise 1*





# Description

In breakout groups, all meeting participants will have a chance to discuss their thoughts about the draft protocol. This is meant to be a high-level exercise that starts our thinking and discussion about the major points of consideration for the protocol.

1. What are the most important points for this protocol to convey?
2. What are the key gaps or missing pieces of content?

*(Breakout groups can focus on other key questions or ideas that emerge within the group as well.)*



# How it'll work

- Breakout groups will have 20 minutes for members to share their thoughts on the guiding questions or the protocol.
- Then, one member of each breakout will report back to the entire group.
- Members of the public are encouraged to participate, but it is not mandatory.
  - Another pathway to participate, provide ideas outside of formal public comment.
- During the afternoon break, Sarah and Kate will pull together key themes which will guide the start of our discussion tomorrow.



# *Breakout notes*



# Synthesis of Key Themes





# Plan to start Day 2

- The purpose of the first exercise tomorrow is to address the key themes that were identified during Exercise 1 today.
- In breakout groups, people will have a chance to brainstorm the categories/ways of addressing the key themes or gaps for approximately 20 minutes.
  - Taskforce members who volunteered to think about the key themes will share first in that part of the discussion to get ideas flowing.
- Then, each group will report back to everyone the main points and themes from their conversations.
- Sarah and I will keep track of these ideas in our notes, and we can revisit at the end of the meeting for work/pathways going forward.





# Questions?

Kate Haapala

[Kate.Haapala@noaa.gov](mailto:Kate.Haapala@noaa.gov)

Sarah Wise

[Sarah.Wise@noaa.gov](mailto:Sarah.Wise@noaa.gov)

