CCTF Members:
Co-chair: Diana Stram (NPMFC): diana.stram@noaa.gov
Co-chair: Kirstin Holsman (NMFS- AFSC) : kirstin.holsman@noaa.gov
Lauren Divine (Aleut Community of Saint Paul Island)
Scott Goodman (Natural Resources Consultants/BS Fisheries Res. Foundation)
Jason Gasper (NMFS-Regional Office)
Mike LeVine (Ocean Conservancy)
Steve Martell (SeaState)
Brenden Raymond-Yakoubian (Sandhill Culture Craft)
Jeremy Sterling (AFSC Marine Mammal Lab)
Todd Loomis (Ocean Peace, Inc.)
The goal of the Climate Change Module is to facilitate the Council’s work towards climate-ready fisheries management that helps ensure both short- and long-term resilience for the Bering Sea.
Objective 1. Collate:
Evaluate the mechanisms and processes through which climate change information is currently included in the fishery management process, identify gaps, and help create opportunities to increase the inclusion of available information.

Objective 2. Synthesize:
Synthesize information about long-term climate change impacts and scenarios and help create pathways for inclusion of that information in the fishery management process.

Objective 3. Communicate:
Identify potential management tools and actions for consideration by the Council that could help increase resilience and adaptation to climate change impacts.
Introductions, plan for CCTF meeting outcomes

Overview reports: CEFl, Council on IRA funding, 3. ACLIM3 and ADAPT

Summary of CCTF member survey feedback on climate scenario planning workshop plans

Recommended approach for Climate Scenario Planning Workshop(s): a. Timing and location(s) for workshop(s) b. Approach

Research priorities

Future plans

eAgenda for Nov 1-2, 2024 CCTF meeting:

https://meetings.npfmc.org/Meeting/Details/3016
Introductions, plan for CCTF meeting outcomes

draft agenda CCTF nov 2023v2 - Uploaded: 10/11/2023 03:28 PM AKDT
Building a Resilient Crab Fishery ABSC2page (Jun 2023) - Uploaded: 10/27/2023 03:32 PM AKDT
Building a Resilient Crab Fishery (Nov 2023 CCTF Presentation) - Uploaded: 11/01/2023 12:32 PM AKDT

Overview reports: CEFL, Council on IRA funding, 3. ACLIM3 and ADAPT

NPFMC Climate Readiness Planning - Uploaded: 11/01/2023 12:27 PM AKDT
Holsman_CEFL_ACLIMupdate - Uploaded: 11/01/2023 12:40 PM AKDT
Staff concept for IRA funding - Uploaded: 11/01/2023 01:19 PM AKDT

Summary of CCTF member survey feedback on climate scenario planning workshop plans

CCTF workshop planning - Uploaded: 11/01/2023 12:30 PM AKDT

Recommended approach for Climate Scenario Planning Workshop(s): a. Timing and location(s) for workshop(s) b. Approach

ECSP+Scenario+Narratives_Nov+2022 - Uploaded: 11/02/2023 12:00 PM AKDT
Draft CCTF Scenarios_revised_in_meeting - Uploaded: 11/02/2023 01:14 PM AKDT

Research priorities

N035-USCH-RP-New-Submission - Uploaded: 11/01/2023 10:15 AM AKDT
N036-BenPhillips-RP-New-Submission - Uploaded: 11/01/2023 10:15 AM AKDT
N037-OceanConservancy-RP-New-Submissions - Uploaded: 11/01/2023 10:15 AM AKDT
N038-PatricLee-RP-New-Submissions - Uploaded: 11/01/2023 10:15 AM AKDT
000-ForCCTF-RP-NewSubmissions - Uploaded: 11/01/2023 03:35 PM AKDT
climate_research_priorities_2023Report - Uploaded: 11/01/2023 04:02 PM AKDT
N039-AMCC-MarissaWilson-2024 - Uploaded: 11/02/2023 01:24 PM AKDT

Future plans

CCTF_Shottwell_Climate_ESP_2023 - Uploaded: 11/02/2023 11:30 AM AKDT

eAgenda for Nov 1-2, 2024 CCTF meeting:

https://meetings.npfmc.org/Meeting/Details/3016
Additional CCTF Agenda items

- Climate related research priorities

- Ecosystem and Socio-economic Profiles (ESPs) as potential on-ramp for continued climate information in Council process
Brief review of research priorities to identify climate related priorities for FEP Team review

- Provided existing priorities to CCTF in advance filtered for identification of climate
- Public portal closed 10/31 and a list of new priorities filtered for identification (self-identified by proposer) of climate
  - Limited time to review new priorities
- CCTF provided a list from these in which at least one CCTF member indicated that it was a priority
- Given time limitations for extended discussion these priorities are not ranked and should not be considered in that context
  - Intent was to identify ones that the FEP Team may wish to consider related to climate in their review
- CCTF notes that in the next research priorities cycle the CCTF will have completed its duration therefore some other Council review body should take responsibility for identification and review of research priorities related to climate
Ecosystem Socio-economic profiles (ESPs) as potential on-ramp for continued climate information in Council process

Climate Readiness

1. Focus: use climate vulnerability assessments to determine which stocks are priorities for conducting an ESP
2. Synthesize: identify thresholds and bottlenecks that may influence survival in a changing climate
3. Analyze: create projections using ocean models to make selected indicators climate informed
4. Communicate: include new graphics and measures in standard reporting template to convey climate readiness
Introductions, plan for CCTF meeting outcomes

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Timeline of multiple Council actions

- **2023**
  - Nov: CCTF meeting on workshop planning
  - Dec: Council review/approve workshops
  - Dec: IRA workplan links CCTF work with climate strategy

- **2024**
  - Feb: SSC discusses case studies for SCS8
  - Feb: Council refines PEIS alternatives (T)
  - Apr: SSC workshop on social/econ considerations in TAC setting using sablefish as case study
  - May: (T) CCTF workshop(s)

- **2025**
  - Oct: CCTF final report to Council
  - Oct: Council reviews PEIS scoping comments, CCTF input, SCS8 recs, and initiates next steps

End 2024 and beyond: Staff develop analyses in support of Council actions
CCTF recommended CSW approach: goal

Synthesize and summarize the critical needs, resources, and process to develop and maintain a robust and inclusive decision-making process to respond to climate change effects in the North Pacific. The workshop will be focused on regional management process:

- Think broadly about potential solutions and tools within the existing process (incremental) but also beyond existing approaches (transformational); and
- Identify the bigger picture changes that could be effective to address large climate impacts and changes.

The workshop format will include: (a) a combination of interactive breakout sessions with scenario planning exercises designed to explore a suite of potential and plausible ‘what if’s’ in order to identify key needs, tools, information sources, opportunities and risks; (b) facilitated discussion sessions designed to support meaningful information exchange between attendees; and (c) structured format that enables cross-pollination of expertise, experiences, and perspectives in solution explorations.
“what if” scenarios and case studies to help inform climate change planning and response.

The focus of future scenarios would be for planning rather than predicting, i.e., they will provide the scope for potential future changes that may occur next year, ten years from now, or 20+ years from now.

Discussions around these changes and potential future scenarios will help identify near term actions, step-by-step approaches, and long-term investments in information, tools, and management innovations needed to increase resilience to climate change for different fisheries and marine dependent communities of place and practice.
Draft Climate Change planning Scenarios

Scenario planning is used to help prepare for the possible futures and potential challenges that may arise. Scenarios are intended to be plausible descriptions of possible future states, useful for exploring 'what if's'. Scenarios are not policy prescriptive regarding desired future states.
Draft Climate Change planning Scenarios

1. Advancements of adaptive EBM, to max. the “triple bottom line” of community wellbeing, ecological productivity, & $$

2. Middle Road
   - Increased focus on near term yield; less investment in surveys, tech., & innovation
   - Innovation & tech. allow harvest near MSY or MEY; there is movement away from EBM towards individual sp. MSY

3. 4. Strong interest in EBM & social targets but lower effectiveness of (& confidence in) management

5. Low predictability (climate, ecosystem, markets)

High predictability (climate, ecosystem, markets)

Note: Scenario planning is used to help prepare for the possible futures and potential challenges that may arise. Scenarios are intended to be plausible descriptions of possible future states, useful for exploring ‘what if’s’. Scenarios are not policy prescriptive regarding desired future states.
Outcomes & deliverables may include but are not limited to:

1. Identification of existing and potential climate change-related adaptations and responses, and key risks, barriers, and traps, as well as potential solutions across financial, social, and policy realms.

2. Synthesis of potential tools and resources to support resilient fisheries, fishing communities, and fisheries management through the Council process, such as:
   - Tactical and strategic measures/actions, both near-term and long-term,
   - Feasible tools, incremental changes as well as larger/long-term recommendations and potential innovations,
   - Climate-informed tools and approaches, needs, and limits.

3. Identification of the critical gaps in the information, tools, and processes to support effective responses and robust planning.

4. Summary of recommendations and opportunities that may inform ongoing and future Council actions and policies under a changing climate.
CCTF meeting February 26th, 2024 (virtual) to finalize plans and agenda for CSW

End of CCTF report (staff suggestions slide to follow)

Thank you!!!
Council staff suggestions for Climate Scenario Workshop

- Workshop held in conjunction with the June Council meeting in Kodiak (Not May in Anchorage as proposed by CCTF)

- Align scope and timing with current Council activities and initiatives (e.g., IRA funding, PEIS NOI, SCS8 preparation)

- 2 day (rather than CCTF suggested 3) workshop

- Report from workshop to represent final output from the CCTF

- Suggest that mid-mtg (i.e. June 5-6) to allow for the participation of SSC, AP, Council and stakeholders

- Virtual participation possible but may be in listen-only mode with public comment period