OUTLINE OF PROPOSED REVISED FISHERY ECOSYSTEM PLAN CHAPTERS 4 AND 5 (EXCERPTED FROM AGENDA ITEM G.2.A, SUPPLEMENTAL EWG REPORT 1, MARCH 2020)

Chapter 4 Interacting Effects of Human Activities and Environmental Shifts within the Marine Environment

This chapter takes a broad look at how human and environmental forces may, singly or combined, have effects on Council-managed resources. For those effects that can be addressed by fishery management measures, the Council can improve and integrate the information that supports decision-making across its FMPs. Ultimately, the Council could use this FEP to inform fishery management measures to help buffer against uncertainties resulting from those effects, and to support greater long-term stability within the CCE and for its fishing communities.

[Retain and reframe Chapter 4 to move away from existing focus on cumulative effects under National Environmental Policy Act. Instead, use revised FEP goals and objectives to frame discussions of ecosystem interactions.]

4.1 Framework and Public Forum for Ecosystem Information used in Council Decision-Making

[Brief discussion of how the process that the Council uses to address Goal 1 improves awareness of the Council and public of ecosystem states: *The FEP should provide a framework and public forum to improve and integrate ecosystem information for use in decision-making.*]

4.2 Effects of Human Activities on Fish Abundance within the Ecosystem

[Retain and update discussion in existing 4.1, Changes in Fish Abundance within the Ecosystem, which is compatible with new draft Goal 2: *Conserve and manage species'* populations to achieve the greatest long-term benefits from marine fisheries and consider the tradeoffs needed to realize those benefits by taking into account the CCE's long-term historical fluctuations in species composition, predator-prey relations, and availability of harvestable surplus of targeted species.]

4.3 Effects of Fisheries Management on Ecosystem Services and the Well-being of West Coast Communities

[Retain and update discussion in existing 4.4, Changes in Fishing Community Involvement in Fisheries and Dependence on Fisheries Resources, which is compatible with new draft Goal 3: *Promote fisheries management that ensures continued ecosystem services for the well-being of West Coast communities and the nation.*]

4.4 Effects of Human Activities on Marine Habitats

[Retain, update, and consolidate text from existing 3.3.4, Human Effects on Council-Managed Species' Habitat, and 4.3, Direct and Indirect Effects of Fishing on Biophysical Habitat, which are compatible with new draft Goal 4: *Minimize the cumulative adverse effects of human activities on marine habitats to the extent practicable.*]

4.5 Effects of Fisheries on Protected Species Recovery

[Retain, reframe and update discussion in existing 4.2, Change in the Abundance of NonFish Organisms within the Ecosystem. Existing 4.2 is intended to address nonfish species broadly, but focuses on nonfish protected species. The new Section 4.5 would follow the new draft Goal 5 by explicitly focusing on fish and nonfish protected species: *Manage fisheries to support goals for protected species' recovery*.]

4.6 Effects of Climate Variability and Change

[Retain and update discussion in existing 4.1, Changes in Fish Abundance within the Ecosystem, which is compatible with new draft Goal 6: *Plan for the effects of climate variability and change on ecosystem services and consider long-term adaptation strategies.*]

Chapter 5 PFMC Policy Priorities for Ocean Resource Management

The purpose of this chapter is to provide non-Council entities with information on some of the Council's highest priority concerns for non-fishing activities within the West Coast EEZ. It is current as of the adoption of this FEP, may be modified at any time after that, and must be considered within the larger suite of Council management programs and documents. This chapter discusses species, habitat types, fisheries, and ecological functions of particular concern to, or that may strongly drive, the Council's policies for CCE resources. Unlike Chapters 2 and 4, the purpose of Chapter 5 would not be to guide future Council work, but to provide external entities with guidance on Council priorities for the CCE's status and functions. External entities that may be interested in the Council's ecosystem-based management planning process and in the Council's within the CCE, regional and national marine use planning bodies, and international fishery and ocean resource management bodies.

[Retain and update Chapter 5. Review priorities with Council for whether they reflect current Council thinking and needs.]

5.1 Species of Particular Interest to the Council

The Council has jurisdiction over fish, which the MSA defines as "finfish, mollusks, crustaceans, and all other forms of marine animal and plant life other than marine mammals and birds." NOAA and the USFWS administer recovery programs for all marine and anadromous species listed as threatened or endangered under the ESA, and administer protection programs for marine mammals under the MMPA. The USFWS manages protection programs for bird species, including seabirds, under the MBTA. The Council is concerned with the potential effects of non-fishing activities that could directly or indirectly harm or kill any of its managed species at any of their life stages, which are identified and discussed in detail in the FMPs. There are, however, some species and species

groups that are likely to be more vulnerable to the effects of non-fishing activities on their life cycles and habitats.

[Retain and update 5.1.]

5.1.1 Anadromous Species [Retain and update.]

5.1.2 Species protected through an overfished species rebuilding plan [Retain and update.]

5.1.3 Species dependent upon a fixed habitat type [Retain and update.]

5.1.4 Species and locations with tribal treaty rights to fishing [Retain and update.]

5.1.5 Internationally-managed species [Retain and update.]

5.2 Fish Habitat

Under the MSA, fishery management councils must describe and identify EFH for managed species. With regard to non-fishing activities that may affect EFH, the Council may comment on activities that may affect fishery resources under its authority, and shall comment on activities that may affect EFH of anadromous species, such as salmon. The MSA defines EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity" 16 U.S.C. §1802. That definition, in combination with the diverse life histories of the 100+ species under Council management, has necessarily resulted in a large geographic area defined as EFH for the cumulative group of Council-managed species. The Council is concerned with non-fishing activities that may affect species with strong linkages to and dependency upon fixed or particular habitat. Similarly, the Council would be concerned with non-fishing activities that have the potential to affect managed species, habitat that is itself vulnerable to long-term alteration. Each of the Council's FMPs, their EFH appendices, and applicable NEPA analyses should be consulted for assessments of the types of human activities expected to have a potential negative effect on EFH for Council-managed species.

[Retain and update 5.2.]

5.3 Fisheries

The Council manages West Coast fisheries for species within its four FMPs: CPS, groundfish, HMS, and salmon. However, participants in the Council process also participate in state, tribal, and international management processes for West Coast species outside of the FMPs. Therefore, while the Council is particularly interested in non-fishing activities that may disturb or prevent fishing activities of Council-managed fisheries, Council process participants are also concerned with non-fishing activities that may affect all fishing opportunities for West Coast fishing communities. Some fishing communities and fishing types may be more vulnerable to disturbance by non-fishing activities than others, as detailed below.

[Retain and update 5.3.]

5.3.1 Communities with a Dependency on Fishery Resources [Retain and update.]

5.3.2 Tribal Fishing Communities [Retain and update.]

5.3.3 Brief Duration Fisheries [Retain and update.]

5.3.4 Location-Constrained Fisheries [Retain and update.]

5.4.5 Internationally-managed species [Retain and update.]

5.4 Ecosystem Structure and Function

Ecosystems are in a constant state of change, and an ecosystem's structure and function will change over time regardless of the level of human intervention with that ecosystem. However, there will be some human activities that have immediate and obvious effects on an ecosystem's structure and function, such as a large-scale oil spill. And, there will be some human activities that have had, and may continue to have, increasing effects on an ecosystem's structure and function over time, such as anthropogenic sound in the oceans.

[Retain and update 5.4.]