C.Rocky Habitat Management

1. Statewide Land Use Planning Goal 19

Oregon's land use planning is founded on nineteen Statewide Land Use Planning Goals. These goals express the state's policies on land and sea use related topics. Goals 16–19 address marine influenced environments, with Goal 19 focusing on ocean resources. In addition to addressing matters such as dumping of dredge spoils and discharge of waste products into marine waters, Land Use Planning Goal 19 frames management of rocky habitats and specifies that agency action regarding resources in the territorial sea "shall be developed and conducted to conserve the long-term values, benefits, and natural resources of the nearshore ocean and the continental shelf."

2. Agencies & Governments

a. Federal Agencies

- **U.S. Fish and Wildlife Service (USFWS)** is in charge of managing several National Wildlife Refuges and enforcing fish and wildlife laws. It is jointly responsible for enforcing the Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA) with the National Oceanic & Atmospheric Administration. The list of endangered and threatened species can be found online. National Wildlife Refuges (NWR) along the coast include the Oregon Islands NWR and Three Arch Rocks NWR which include all offshore islands in Oregon's territorial sea along with several mainland portions: Coquille and Crook Points, and Cape Meares NWR.

- **The National Oceanic and Atmospheric Administration (NOAA)** Multiple offices within NOAA have a role in coastal and rocky habitat management in Oregon. Primarily, this includes NOAA Fisheries and NOAA's Office for Coastal Management. NOAA Fisheries (also known as the National Marine Fisheries Service or NMFS) is in charge of fisheries management as well as being jointly responsible for implementation of both the ESA and the MMPA with USFWS. In Oregon's marine environments, NOAA Fisheries is the agency primarily responsible for activities related to marine mammal species and their habitats, including the Pinnipeds that rest on Oregon's rocky coast. NOAA's Office for Coastal Management (OCM) is responsible for implementation of the National Coastal Zone Management Program, providing annual funding, federal consistency authority, technical and policy assistance, as well as access to a variety of data, tools and training. In addition, the NOAA Office of Response and Restoration oversees and coordinates development of the Oregon Marine Debris Action Plan.

- **Bureau of Land Management (BLM)** owns and manages public lands throughout the state, including some that front Oregon's rocky shorelines, primarily Yaquina Head Outstanding Natural Area (YHONA).
- **U.S. Forest Service (USFS)** owns and manages public lands in national forests and grasslands throughout the state, including several large forests (Rogue River, Siskiyou and Siuslaw) within the coastal zone and one that fronts the coast (Siuslaw National Forest), home to Cape Perpetua Scenic Area and Cascade Head Scenic Research Area.
- **Environmental Protection Agency (EPA)** is responsible for developing and enforcing environmental laws to protect human health and the environment, such as the Clean Water and Clean Air Acts. The EPA also conducts environmental research to further its mission of protecting human health and the environment, as well as promoting education, volunteer efforts, and offering financial assistance to state-level environmental programs.

b. State Agencies

- **Oregon Parks and Recreation Department (OPRD)** has two main roles in managing areas within Oregon's coastal zone; the first is as a landowner. OPRD manages more than 70 parks, waysides, and other facilities along the coast that offer shoreline access. The second is the agency's statutory authority for managing Oregon's ocean shore recreation area. The "ocean shore" is defined as the land lying between extreme low tide of the Pacific Ocean and the statutory vegetation line, or the line of established upland shore vegetation, whichever is farther inland, and does not include estuaries (ORS 390.605). Within the Ocean Shore State Recreation Area, OPRD issues ocean shore alteration permits, including those for shore protective structures (e.g. riprap), natural product removal use permits, and scientific research and collection permits. OPRD developed the Ocean Shore Management Plan for this area and is responsible for protecting a variety of natural and cultural resources, managing many shoreline uses, and providing public access, recreational facilities, and recreational opportunities.
- **Oregon Department of Fish and Wildlife (ODFW)** manages fish and wildlife and their habitats. It implements fish and wildlife laws and programs (including recreational and commercial fishing rules), issues scientific collection permits, and advises other agencies on biological issues. ODFW also implements the fish and wildlife management recommendations in the rocky habitat sites designated in this strategy as well as managing other protected areas such as Marine Reserves and Marine Protected Areas.

- **Oregon Department of State Lands (DSL)** has jurisdiction over the submerged and submersible land of the territorial sea. DSL has both proprietary ownership and regulatory responsibilities within the territorial sea. DSL authorizes uses of the seafloor, including placement of submarine cables, installation of wave and wind energy devices and research equipment, kelp removal, and the placement of other structures. DSL also administers Oregon's removal-fill law which governs the removal, fill, and alteration of sediments, rock, and other materials comprising the submerged and submersible land underlying the territorial sea (SB 11, 1999). Additionally, DSL has rules that designate Marine Reserves and Marine Protected Areas. See Figure 3 below for jurisdictional spatial context.

- **Oregon Department of Land Conservation and Development (DLCD)** houses the Oregon Coastal Management Program (OCMP). It ensures that projects from the federal to local level are consistent with the state's federally-approved Coastal Zone Management (CZM) program, which includes the 19 statewide land use planning goals. In partnership with several other organizations, DLCD has developed Oregon's Coastal Atlas, which has information on rocky habitats and other coastal areas in Oregon. OCMP is also the main staff agency supporting the Ocean Policy Advisory Council.

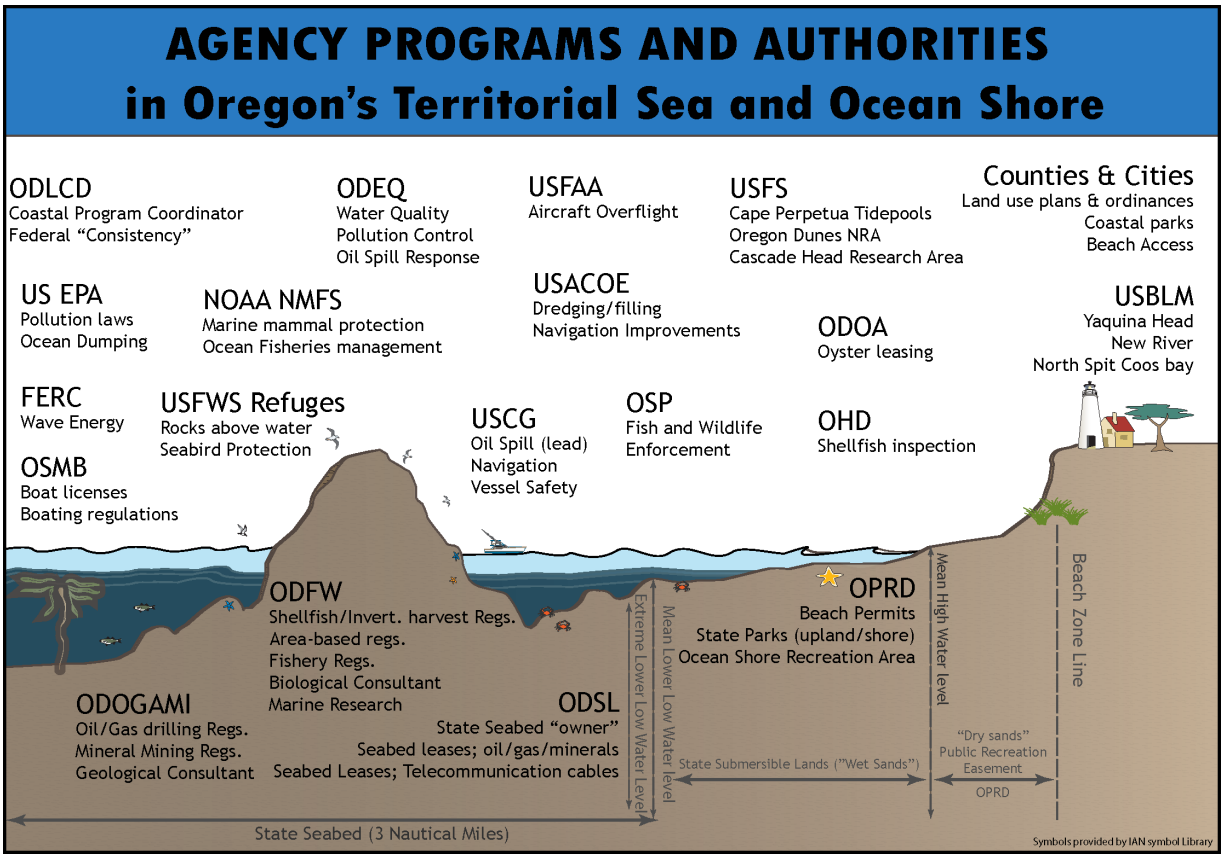

Figure 3. Regulatory responsibilities and authority in Oregon's territorial sea and ocean shore zone.

- **Oregon Department of Environmental Quality (DEQ)** has authority for protecting water and air quality in Oregon's territorial sea, including oil spill prevention and response, and enforcing laws such as the Clean Water Act.
- **Oregon State Marine Board (OSMB)** regulates boating activity within the territorial sea.
- **Oregon State Police (OSP)** enforces fish and wildlife regulations and other state environmental laws and rules.

c. Oregon's Coastal Tribes

While many tribes have ties to areas along the Oregon Coast, federally recognized Tribal Nations within the state's coastal zone include the Confederated Tribes of Coos, Lower Umpqua & Siuslaw Indians, the Coquille Indian Tribe, the Confederated Tribes of Siletz Indians, and the Confederated Tribes of the Grand Ronde Community of Oregon. Oregon's federally recognized Tribal Nations are each their own sovereign government and may have treaty-protected gathering rights, consent decrees, and other legal mechanisms that shall be respected (in consultation with the tribes as appropriate) when making any resource management decision. Additionally, it may be appropriate to expand definitions of cultural sites to include all those that have associated traditionally used resources, such as gathering sites.

3. Rules & Regulations

Much like Oregon's diverse coastal ecosystems, the associated rules, regulations, and authorities governing the use of rocky habitat resources are also complex in nature. This section includes a brief description of the primary coastwide and site-based state and federal rules and regulations regarding Oregon's rocky habitats.

The site management goals and recommendations in Section D. should not be confused with applied agency management designations. Instead, the intent of this strategy is that agencies will work toward implementing the site management recommendations outlined in the strategy.

*An exhaustive description of all of the regulations is beyond the scope of this plan; instead, this section offers a summary of current regulations and management measures enforced within Oregon's rocky habitats with references to more detailed materials.

a. Federal Laws & Regulations

i. Threatened & Endangered Species

Endangered Species Act (16 USC §§ 1531-1543)

A number of bird and mammal species that use Oregon's rocky habitat areas, either as residents or when migrating, are protected as threatened or endangered species under federal law. The U.S. Fish and Wildlife Service: Environmental Conservation Online System[14] should be consulted for the most up-to-date list of listed species. Consultation with USFWS and NMFS should occur, as appropriate.

Federal regulations prohibit the unauthorized "taking" of any species listed by federal regulation as "threatened" or "endangered". The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct (16 USC § 1532 (19)). These federal regulations determine the protection standards for these animals or plants even when they occur in state waters. Federal regulations authorize the designation of "critical habitat" for threatened or endangered species that can have consequences for human activities within or adjacent to designated areas.

ii. National Wildlife Refuge System/National Wilderness System

National Wildlife Refuge System Administration Act (16 USC § 668dd-668ee) and Oregon Islands National Wildlife Refuge; Wilderness Act (16 USC §§ 1131-1136)

Almost all the rocks and islands along the Oregon Coast are in the Oregon Islands National Wildlife Refuge, Three Arch Rocks National Wildlife Refuge, or Cape Mears National Wildlife Refuge, and are administered by the U.S. Fish and Wildlife Service. There are extensive regulations for managing these rocks and islands under many different laws. The chief regulations of interest for rocky habitats relate to prohibiting trespass (no climbing or landing on), and harassing wildlife, whether intentional or unintentional. In addition, the operation of unmanned aircraft (e.g. drones) is illegal on refuge islands. Most rocks under National Wildlife Refuge System jurisdiction are also in the Oregon Islands Wilderness designated by the U.S. Congress.

iii. Migratory Species

Migratory Bird Treaty Act of 1918 (16 USC §§ 703-712) and the Migratory Bird Conservation Act of 1929 (16 USC § 715-715r)

Oregon's rocky coast offers habitat for many migratory bird species that are protected by federal law, including the Migratory Bird Treaty Act of 1918 and the Migratory Bird Conservation Act of 1929. Thus, these habitat areas are of interest not just to the State of Oregon or the United States, but also other nations. Federal regulations protecting migratory species are an important part of Oregon's rocky habitat management.

[14] https://ecos.fws.gov/ecp0/reports/species-listed-by-state-report?state=OR&status=listed

iv. Marine Mammals

Marine Mammal Protection Act (16 USC §§ 1361-1407)

Several species of marine mammals make Oregon's rocky coast their home for all or part of the year. All these mammals are protected by the Marine Mammal Protection Act. Under this law it is unlawful to "take" a marine mammal; this means that it is unlawful to harass, hunt, capture, or kill, or attempt to do these things to any marine mammal (16 USC § 1362 (13)).

b. Coastwide Rules & Regulations

i. Marine Fish & Invertebrate Harvest

The ultimate goal of managing fish and invertebrate harvest is to allow for public use and enjoyment of these resources while ensuring their long-term sustainability. Oregon Department of Fish and Wildlife (ODFW) manages marine fish and invertebrates through a program of harvest or take regulations, area closures, collection of research and monitoring data to determine species or habitat status, and recommending habitat protections to permitting or land management agencies. This section provides a general summary of the regulatory aspects of management that were in place as of May 2020. Refer to OAR chapter 635 for a full listing of the regulations.

Managing species harvest employs multiple layers of regulations tailored to the purpose, species, and area of harvest. Separate sets of regulations apply to sport (recreational) harvest, commercial harvest, and take for scientific or educational purposes. ODFW draws on a suite of tools to accomplish management goals including license and permit requirements, limiting participation in fisheries, restrictions on harvest gear or methods, limits on catch (annual or seasonal quotas, trip limits, daily bag limits, etc.), size or sex restrictions, seasonal closures, and area closures. ODFW applies these tools singularly or in combination depending on the species, area, fishery, and many other factors. For some species, harvest regulations may remain constant for years, while for others, regulations change on an annual or shorter timeframe.

Sport Harvest of Marine Fish and Invertebrates

Marine sport fishery regulations apply to the Pacific Ocean, coastal bays, and beaches. An angling (fishing) license is required to take and land marine fish, including halibut, lingcod, rockfish, flounder, surfperch, greenling, cabezon, sole, salmon, and others. Special tags are required for some species. A shellfish license is required for recreational harvest of shellfish and other marine invertebrates.

Management of sport harvest in Oregon’s rocky habitats relies primarily on the rules and regulations placed on daily catch limits (bag limits), type of equipment or harvest method used, seasons, and area closures. ODFW’s Oregon Sport Fishing Regulations

and supplemental materials, available at license sales locations or on the ODFW website, provide details of the regulations.

Commercial Harvest of Marine Fish and Invertebrates

Commercial fisheries management employs a wide array of regulations, many of which are specific to the individual fishery. Commercial fisheries most likely to occur in Oregon's rocky intertidal and adjacent subtidal areas include intertidal invertebrate harvest, subtidal harvest of urchins and other invertebrates, harvest of nearshore fish species, and a sporadic and small-scale harvest of fish in intertidal areas for the aquarium trade.

Harvest of intertidal invertebrates requires a Commercial Shellfish Harvest Permit or Intertidal Animal Harvest Permit, in addition to other licenses that are required of a commercial fisher. These permits contain standard language indicating areas closed to commercial harvest, and ODFW has the authority to place additional requirements on the permit concerning allowable species, seasons, harvest areas, catch limits, and harvest gear and techniques.

Management of subtidal fisheries varies by species. For invertebrates, species such as urchins, Dungeness crab, and pink shrimp are controlled with longstanding limited entry systems along with a myriad of other regulations. Commercial urchin harvest is not allowed in waters shallower than 10 feet, so there is no commercial urchin harvest in rocky intertidal areas. There are also seasonal urchin harvest closures on Orford Reef and around Pyramid Rock on Rogue Reef. Harvest of subtidal invertebrate species not regulated with a limited entry program or other specific regulations are subject to the Commercial Shellfish Harvest Permit described above. Management of fish species caught in subtidal environments includes a complex array for regulations set both regionally by the Pacific Fishery Management Council and by the West Coast states.

ii. Marine Plant Harvest

Structure-forming plants and algae provide shelter and food for the diversity of unique and economically important organisms that live in Oregon's submerged rocky habitats. Marine aquatic vegetation in these areas is critical to the success of the ecosystem, yet sensitive to pollution, trampling, warming, overgrazing, eutrophication, and ocean acidification, among other effects.

The removal of natural products, including plants, from the Ocean Shore State Recreation Area (otherwise known as the "ocean shore", the area between extreme low tide and the line of vegetation) is prohibited by law except in compliance with regulations of the Oregon Parks and Recreation Department (OPRD) (ORS 390.705).

There are no permits required for the souvenir collection of marine plants on the ocean shore; however, OPRD has rules that apply to collection and that define and restrict

souvenir collection in protected areas (OAR 736-021-0090; 736-029-0010). Commercial harvest on the ocean shore is uncommon and regulated under ocean shore alteration permit requirements outlined by ORS 390.725 and OAR chapter 736, division 20. Below extreme low tide, removal of marine plants is regulated under ORS chapter 274, and administered by the Department of State Lands (DSL). Individuals may harvest up to 2000 pounds of wet kelp per year for personal consumption from submerged lands (below extreme low tide) within the territorial sea without a lease from DSL (ORS 274.895).

iii. Rocky Shoreline Access

The ocean shore is, by law, a public recreation area managed by the Oregon Parks and Recreation Department (OPRD) who is charged with preserving and maintaining the public's free and uninterrupted use of Oregon's shoreline (OAR 736-021). In addition, OPRD is mandated to manage the ocean shore for the preservation and protection of recreational uses and natural resources. OPRD has the legislative authority to regulate certain activities and "improvements" within its jurisdiction between extreme low tide and the line of vegetation. Such regulation of uses or activities may result in certain restrictions in response to safety or resource concerns. These regulations may restrict construction of shoreline protection structures, beach accesses, pipelines and conduits, signage, removal of natural products, and other issues that may have an impact on the ocean shore (OAR chapter 736).

c. Site-Based Regulations

i. State Site Designations (Rocky Habitat Management Strategy Designations)

The Rocky Habitat Management Strategy is intentionally flexible to allow site designations to be adaptive to change. Due to the adaptive nature of the strategy, a static list of designations is not appropriate for incorporation into the text of the strategy as they may go out of date before the full plan needs to be updated. Rather, Appendix E provides a map of the currently designated sites along with text descriptions of their management. For historical context, an overview of the original 1994 recommended designations as well as the implemented designations as of May 2021 are available in Appendix F.

d. Scientific & Educational Permitting

Oregon Department of Fish and Wildlife (ODFW) and Oregon Parks and Recreation Department (OPRD) administer permitting programs for scientific research and education programs proposing projects in rocky habitat areas. ODFW scientific research permits are required for any project proposing the take of marine organisms for scientific or educational purposes. An OPRD permit is necessary for any project proposed to take

place on lands owned and managed by the department and is required for activities pertaining to natural and cultural resources involving the collection and take of organisms. Take can include actions that cause mortality of the organism, capture and release (regardless of whether or not there is mortality), and tagging and release. In some cases, observation of organisms can also require the take permit, but this applies mostly to wildlife or listed threatened or endangered animals where observational studies can disturb the organisms.

Both programs require permittees to submit documentation prior to the beginning and after the conclusion of projects. Departmental websites should be consulted for a full description of permitting rules and requirements.

Additional permits may be required by state or federal agencies based on the proposed activity and location. Users are encouraged to contact local site authorities to determine appropriate permitting.

e. Rapid Response

The dynamic and unique features that make the Oregon Coast most memorable also present many challenges to managing disaster and threat response. An extreme wave climate and low accessibility can hamper response attempts, while the interconnectivity of marine ecosystems allows for accelerated spread of potential issues. Due to the inherent complexity of these ecosystems, this strategy recognizes that no single plan or method may be appropriate for responding to all events. Therefore, the best response to sudden and unforeseen events is agency and stakeholder coordination. Individual response plans for imminent threats and impacts to rocky habitats should occur in a timely manner once recognized[15].

Two key factors to successful threat mitigation is early detection and rapid deployment of response efforts. Sustained monitoring should follow these efforts to track the threat and any recovery or changes that may have occurred in the environment. Foreseeable threats to rocky habitats should be discussed and preemptively planned for by agencies. Early detection can greatly reduce the overall damage caused by a threat and potential cost in combatting it.

Oregon's rocky coast is not unaccustomed to expeditious onsets of threats. For example, in 2013, an outbreak of sea star wasting syndrome substantially impacted sea star populations in Oregon and along the West Coast. The impacts of this sudden decline in sea star populations has led to considerable and persistent impacts to the rocky intertidal ecosystems along the West Coast that are still being studied and

[15] Agency action prior to rapid response planning may be required to assure immediate safety of life and resources.

actively monitored by a number of institutions. More commonly, threats include the sudden onset of marine debris washing ashore into intertidal areas. In these instances, a more general plan may be created to determine appropriate removal and jurisdiction in accordance relevant action plans.

i. Oil Spill Response Planning for Oregon's Coastal Rocky Habitats

Oil spill response planning in Oregon is the responsibility of both the Oregon Department of Environmental Quality (DEQ) and facilities that store, transport, or process large amounts of petroleum related products. Vessels and facilities have their own plans for stopping spills before they can spread. Oregon DEQ regulates these facility plans and also develops plans for areas that contain many potential sources of oil spills or that are especially vulnerable to harm from oil spills. The Oregon Coast is one such area. Updated oil spill response plans released by DEQ in 2019 provide new strategies for the containment and collection of spilled oil in the Oregon coastal region. These strategies intend to keep oil away from sensitive natural, cultural, historic, and socioeconomic resources. Where possible, these oil spill response plans for the coast will include strategies to protect rocky habitat areas for the species that live there and the people who visit them. These plans include information for notifying resource managers and affected facilities when spills happen. View DEQ web resources[16] for more information on DEQ's work to update the coastal oil spill response plans.

ii. Boating/Closure Areas

The State Marine Board has authority to adopt regulations for boating activity in state waters. The Marine Board has adopted regulations (OAR 250-20-309) to establish a seasonal boating closure around Three Arch Rocks to protect wildlife.

f. Ecosystem-Based Management

This strategy intends management to be adaptable to changing information and conditions with the goal of maintaining long-term ecosystem viability and sustainability. To do this, management prescriptions shall be applied following principles of ecosystem-based management (EBM). Although EBM is an ever-evolving concept, the general principles and takeaways have been agreed upon since the 1970s. This transdisciplinary framework considers ecosystem connections, coupled social-ecological influence, system uncertainty, adaptive and integrative management, stakeholder involvement, and sustainability, all using the integration of scientific

[16] https://arcg.is/0XWemL

knowledge and appropriate monitoring with a precautionary approach.[17] More broadly, EBM is a holistic management approach informed by science and monitoring, which managers use to better consider the tradeoffs in resource uses and protections in order to sustain biodiversity and productivity in a system[18]. The adaptive component of EBM is comprised of a suite of flexible strategies and tools that can be applied where uncertainty exists. This management structure can be altered based on the intricacies of an issue.

This plan contains no direct prescriptions for applying EBM into the management of rocky habitat resources. Instead, the key principles and elements of EBM have been woven into each section of the Rocky Habitat Management Strategy, as additional scientific knowledge and monitoring takes place, agencies shall incorporate best practices into site-based management prescriptions and actions. Additionally, this strategy supports:

a) Continued updates to and refinement of the coastwide rocky habitat resource inventory using information from ongoing scientific research and monitoring;

b) Regional communication and collaboration with coastal partners including California, Washington, British Columbia, and Alaska in order to appropriately manage and understand larger ecosystem events and trends;

c) Ongoing inventory and monitoring of rocky habitat ecosystems and species to quickly account for variations and adapt management accordingly;

d) Increasing understanding of rocky habitat ecosystems through scientific study and gathering of local ecological knowledge;

e) Incorporation and growth of monitoring activities to support best management measures for ecosystem sustainability and use. Scientific study and monitoring should be implemented through a diversity of forms based on level of information, cost, and frequency of need.

Oregon's rocky habitat environment lends itself well to EBM due to its inherent complexities, vulnerabilities, and interconnection with land, sea, and society. Without the use of an applied and adaptable management system, rocky habitats cannot be properly managed and sustained for current and future generations.

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[17] Long, R. D., Charles, A., & Stephenson, R. L. (2015). Key principles of marine ecosystem-based management. *Marine Policy*, *57*, 53-60.

[18] National Oceanic and Atmospheric Administration (NOAA), Ecosystem-Based Management Core Characteristics; https://ecosystems.noaa.gov/EBM101/WhatisEcosystem-BasedManagement.aspx