

Oregon Rocky Habitat Management Strategy Site Designation Proposal Template

DISCLAIMER: All rocky habitat site designation proposals MUST be submitted online via the Rocky Habitat Web Mapping Tool (Oregon.SeaSketch.org). If you require assistance with proposal submission, please contact the Rocky Shores Coordinator, Michael Moses, at Michael.Moses@state.or.us.

All proposals must be accompanied by a map and site report which may be generated under the "My Plans" tab on the Rocky Habitat Web Mapping Tool, or you can attach your own map to the proposal form. Interested parties should also review the [Rocky Habitat Management Strategy](#) to determine the eligibility of possible site designations prior to submitting a designation proposal.

Entities in need of special accommodation should contact staff at the Oregon Coastal Management Program. Due to the depth of agency review, staff cannot guarantee when a proposal will be reviewed by OPAC or LCDC. Please note that a high volume of submissions may increase review timelines.

Have questions? Contact Andy Lanier (Andy.Lanier@state.or.us) or Michael Moses (Michael.Moses@state.or.us).

Proposed Site

Cape Lookout Marine Conservation Area - <http://seasket.ch/y0bglF2PXn>





Contact Information

Please fill out the following section with primary contact information for this proposal. Contact information will be used to provide proposal review updates and ask for questions relating to this proposal.

Name of Principle Contact

Who should be contacted with updates and questions regarding this proposal?

dawn villaescusa, President

Affiliation, agency, or organization (if applicable)

Audubon Society of Lincoln City

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General Proposal Information & Rationale

To the best of your knowledge, fill out the following section with the general site identification and rationale information for your proposed designation.

Proposal Type

Proposals may outline desired additions, deletions, or alterations to rocky habitat site designations, as outlined in the Territorial Sea Plan: Part Three.

New Site Designation (addition)

Existing Site Removal (deletion)

Alteration to Existing Site

What type of rocky habitat designation are you proposing?

Marine Research Area

Marine Garden/Education Area



X Marine Conservation Area

Proposal Rationale and Goals

Please describe the context for why this proposal is being brought forward. a) Please describe the site-specific goals for this proposal. b) What are the outcomes or metrics which could be measured to determine progress toward or achievement of these goals?

Note to reviewers: Attachment 22: CL Proposal is a pdf of the formatted proposal in its entirety for the reviewers' convenience. The text is identical to that in the proposal survey form.

The State of Oregon holds the lands, waters, and living resources within its boundaries in trust for the public and, acting through local, state, and federal laws, seeks to ensure that ocean resources, values, and benefits are conserved for the current and future generations. As part of ongoing processes to meet this goal, the Rocky Shores Management chapter (Part Three) of the Oregon Territorial Sea Plan (TSP), originally established in 1994, was recently amended. This amended Rocky habitat Management Strategy incorporates the best available science and considers the needs, concerns, and values of Oregonians balanced with the state's goals for a resilient coastal ecosystem that can provide enduring opportunities for its users. The Strategy acts as a coordinated vision for marine resources in Oregon and guides the actions of state and federal agencies that are responsible for managing coastal and ocean resources in the public trust.

The Strategy allows local community groups and individuals to submit site-based proposals for inclusion in the Strategy. Site-specific coordinated management that applies the principles of ecosystem-based management can protect ecological resources and biodiversity while allowing appropriate use.

Audubon Society of Lincoln City (ASLC) was established in 2006 as a chapter of the National Audubon Society, assigned as such to serve both Lincoln and Tillamook counties. Our core programs are Education, Citizen Science, and Conservation and our mission includes the protection and preservation of wildlife habitats on the Oregon coast. We began in 2019 to work on a campaign to seek designations for key sites in the two counties that we serve. Over the past 18 months, we have formed a core team made up of ASLC members and others, held public events such as webinars to inform and webinars to discuss, published handouts highlighting the Strategy and our proposals, visited several sites, and presented our plans to decision makers in both counties.

Jutting nearly two miles straight out into the Pacific Ocean, Cape Lookout's magnificent 400-foot-high basalt cliffs, old-growth Sitka Spruce forests, and nesting colonies of sea and shore birds represent an unparalleled marine ecosystem along the Oregon Coast. In 1935 State Parks Superintendent Samuel Boardman acquired 950 acres from the U.S. Lighthouse Service as the first step in establishing Cape Lookout State Park. Boardman envisioned the Cape as a natural history preserve. Except for the Cape Trail and a small parking lot that provides access to it and the Oregon Coast Trail, the Cape remains in its natural state. Campgrounds and associated facilities have been developed near the beach north of the Cape. The Cape Trail is a popular hiking destination throughout the year, especially during whale-watching season. Boardman enjoyed referring to Cape Lookout as one of Oregon's "crown jewels." Most Oregonians familiar with the coast would likely agree.

In 1975, Cape Lookout was registered as a Natural Heritage Conservation Area in the Oregon Natural Heritage Plan in recognition of its nesting colonies of seabirds and old-growth Sitka Spruce forest. The

Cape is home to the second largest nesting colony of Common Murres along the entire Oregon Coast. In 1994, the rocky habitat on the south side of the Cape was designated a Habitat Refuge, a designation that was never implemented. Now, 26 years later, the Audubon Society of Lincoln City proposes to designate the rocky habitats on both the north and south sides of Cape Lookout as a Marine Conservation Area (MCA).

Designating Cape Lookout's rocky habitats as a Marine Conservation Area will help achieve Oregon's Nearshore Strategy goal to protect rocky habitat resources in order to provide "long-term ecological, economic, and social benefits for current and future generations of Oregonians." A Marine Conservation Area designation will: 1) protect migrating and nesting seabirds on both north and south facing cliffs; 2) protect seal haulouts (places where seals rest and reproduce) during critical reproductive seasons; 3) create opportunities for the thousands of annual visitors to Cape Lookout to learn more about the area's natural resources - and how to enjoy them safely and responsibly; 4) educate recreational users such as boaters, paragliders, and drone enthusiasts about the need to keep an appropriate distance from seabird colonies during nesting season to avoid disruption and nest failure; and 5) preserve Cape Lookout in its natural state for us all to enjoy as we "lookout" to the future.

This proposal emphasizes education, stewardship, and active community engagement as mechanisms to protect rocky habitat natural resources while providing appropriate use. Site access will be maintained as consistent with the land manager's policies and directives. The proposal recommends no change to coastwide commercial and recreational fish harvest regulations. The proposal recommends closure within the plan area for some invertebrate species. Harvest of clams, Dungeness crab, red rock crab, mussels, piddocks, scallops, squid, shrimp, and sand crab will remain open subject to coastwide regulations. ODFW may identify additional invertebrate species for harvest that would be consistent with an ecosystem-based management approach. Sea urchins may be commercially harvested according to coastwide regulations. Reduction in the purple urchin population as a habitat restoration method for kelp forest should also be considered.

GOAL

Conserve, to the highest degree possible, the ecological functions and rocky habitat resources in order to provide long-term ecological, economic, and social benefits for current and future generations.

PROCESS OBJECTIVES

- 1) Engage stakeholders in adaptive management of the Cape Lookout Marine Conservation Area to achieve designation goal and objectives.
- 2) Foster cooperation and coordination among local, state, and federal resource management agencies, and Tribal Nations, to ensure ecosystem-based management principles guide management decisions for marine resources, wildlife, and habitat at Cape Lookout.
- 3) Enhance the appreciation and foster personal stewardship of Cape Lookout rocky habitats through education and interpretation with an emphasis on structured group programs.
- 4) Identify knowledge and management gaps for achieving designation goals and implement research/monitoring including community science to fill those gaps. Research and monitoring needs are defined in the Oregon Nearshore Strategy. These research and monitoring needs should be prioritized as



applicable to the Cape Lookout MCA.

RESOURCE OBJECTIVES

- 1) Promote a better understanding of the biodiversity, population trends, and the physical, biological, and chemical interactions for intertidal habitats within the MCA, especially those located at the southern shoulder of Cape Lookout.
- 2) Maintain the spatial area of kelp beds within the mid to upper range of natural inter-annual variability.
- 3) Maintain or improve the ecological integrity of kelp beds as measured by habitat complexity, species biodiversity, and population structure of keystone and other Nearshore Strategy species. Note: This is a long-term objective. Funding and other resources may limit short-term monitoring capabilities to document progress towards this objective.
- 4) Avoid human disturbance of seabird colonies and Black Oystercatchers utilizing rocky habitat during nesting season (April - August).
- 5) Maintain access to rocky habitats where feasible and consistent with land manager goals and objectives. Provide a safe environment for all ages participating in organized experiential learning programs focused on the southern shoulder of Cape Lookout.
- 6) Avoid human disturbance of pinnipeds at haulout areas.

METRICS FOR EVALUATING PROGRESS TOWARDS GOAL AND OBJECTIVES:

The goal and objectives for this designation will be met through the implementation of the site-specific management recommendations contained in this proposal as well as the policies stated in the Rocky Habitat Management Strategy. Each of the management recommendations included in this proposal includes specific and measurable metrics for evaluation. Those evaluation metrics are summarized by category.

EDUCATION: Documenting the inclusion of educational curriculum and activities oriented toward the understanding and appreciation of rocky habitat within programming at the State Park and Camp Meriweather, use of social media such as the Audubon Society of Lincoln City (ASLC) Facebook page, installation of signage, and informing boaters and drone operators how to avoid disturbing wildlife.

PROTECTION: The need and effectiveness of adaptive management measures, stewardship observation records, distribution rates of flyers on boater/wildlife interactions, trends in seabird counts within colonies, implementation of invasive species monitoring, and response.

STEWARDSHIP: Volunteer stewards per year, training records for stewards, outcomes from reported enforcement needs, participation levels, and success of community science projects. CoastWatch has well-established protocols and data systems to support coastal stewardship.

CLIMATE CHANGE AND RESILIENCY: The evaluation of site-specific and regional efforts to build in climate change considerations and resiliency will rely on concepts and measures identified in the

Climate Change Adaptation Framework (see recommendation R4.)

MONITORING AND RESEARCH: Progress towards achieving goals and objectives will be documented by participation levels and adequacy of data to support adaptive and holistic management decisions. Community science monitoring is a component of this proposal. A monitoring feasibility study will be completed within two years of designation. Regional collaboration on research and monitoring needs will benefit rocky habitat at this site as well as coastwide.

Community engagement is an essential component of ecosystem-based management and is self-evident in the goal for this designation. The single most important factor for the success of marine protected areas is community engagement [Partnership for Interdisciplinary Studies of Coastal Oceans and University of Nice Sophia Antipolis. 2016. The Science of Marine Protected Areas (3rd edition, Mediterranean). www.piscoweb.org. 22 pages]. A key community engagement action identified in this proposal is the commitment of ASLC to host a biennial State of the Cape meeting. This meeting is an ideal platform to foster collaboration of community, agencies, Tribal Nations, and interested organizations in routinely evaluating progress toward achieving the designation goals and objectives.

Please refer to the management recommendations stated in other sections of this proposal for additional detail.

SITE-SPECIFIC MANAGEMENT RECOMMENDATIONS

The development of the objectives and management recommendations within this proposal gave thoughtful consideration of what is realistic and achievable given anticipated budget constraints and availability of other resources. Many of the actions supporting management recommendations can be achieved through volunteer efforts with minimal monetary investment required. Other recommendations may already be within the existing capacity and scope of work for agencies. Some specific actions for implementing the management recommendations are identified as actions that ASLC, as the primary proponent, will be responsible for. Where feasible, timelines are included for these metrics. The proponents of this proposal recognize that implementation of some management recommendations may require considerable resources well beyond the capability of ASLC or other community stakeholders. Recommendations that may require state and federal agency involvement beyond current existing capacity are considered long-term management recommendations. While their implementation may be postponed until future funding sources are secured, it is important to identify these management needs to guide future planning and management direction.

RECOMMENDATION (R1): Work cooperatively with educators, institutions, organizations, and media services to expand public awareness of the Rocky Habitat Management Strategy and the Cape Lookout Marine Conservation Area through electronic social media, school outdoor education curriculums, and interpretive opportunities. Engage the public in awareness of issues facing rocky habitats and proper stewardship.

Rationale: Oregon's coastal rocky habitat is one of the richest ecological systems in the world, home to thousands of species in a multitude of habitat types. An informed public is more apt to be better stewards and advocate for funds to implement necessary management actions to achieve Rocky Habitat Management Strategy goals and objectives. Increased public awareness will foster stakeholder involvement in an ecosystem-based management approach for newly designated sites. While public access to the shoreline is an iconic value for Oregonians, we are loving some habitats to death through

uninformed and unintentional misuse. Education should emphasize proper tidepool etiquette, measures to protect wildlife, and the ecology of rocky habitats.

Opportunities for onsite education on rocky habitat exists at both the Camp Meriweather facilities and the State Park core use area. Defining the range of future educational activities oriented toward rocky habitat and participation levels is subject to coordination and planning once the Marine Conservation Area is designated. The camp program draws participants from 20 states as well as throughout Oregon. In recent years, the Tillamook County Outdoor School has been conducting programs out of the camp with more than 1,000 students per year involved in experiential environmental education. Tidepool walks at the intertidal boulder habitat at the southern shoulder of the cape are part of these learning activities. Efforts to date to discuss the proposal for Cape Lookout with the Tillamook County Outdoor School have not been successful due to time limitations and Covid-19 constraints. ASLC is committed to working with other interested organizations to integrate learning opportunities on rocky habitat and how to responsibly interact with rocky habitat resources into ongoing programming at the camp. Additional education opportunities potentially include scheduling Audubon Days or other programming at Cape Lookout to celebrate and share information about seabird colonies, intertidal habitats, and the ecological importance of kelp forests. Onsite learning programs will be designed to integrate well with the camp and State Park management plans.

Metrics for Evaluation: 1) Documentation of programming oriented toward rocky habitat and other natural resources of the cape. Demographics and numbers on participation in programs. Activities are subject to Covid-19 limitations for at least the short term.

2) ASLC will promote appropriate use and enjoyment of rocky habitat through our Facebook page “My Favorite Rocky Habitat” (<https://www.facebook.com/groups/myfavoriterockyhabitat>)

3) Publish at least one feature article per year in the ASLC newsletter or website focused on the natural resources, use, and enjoyment of the Cape Lookout Marine Conservation Area.

4) ASLC will host a biennial summit meeting on the State of Cape Lookout MCA with participation encouraged from community members, agencies, and Tribal Nations.

5) Explore opportunities for interpretive programs at Cape Lookout State Park.

Potential Cooperators: Cape Lookout State Park, state and federal natural resource agencies, youth activity and education organizations, universities, community colleges, Oregon Sea Grant, Oregon Coast Aquarium, and Hatfield Marine Science Center. ASLC has indicated our willingness to support, as feasible through information and volunteer contribution, the experiential outdoor learning activities offered by site-based agencies and organizations. ASLC can provide expertise on tidepool ecology and etiquette, birding, and intertidal rocky habitat ecology. By listing other potential partners, it does not imply a commitment or endorsement of this proposal.

RECOMMENDATION (R2): Provide educational opportunities through signage at the Cape Lookout south parking lot and the north day-use area describing the ecology of rocky habitats and unique rocky habitat features at Cape Lookout. Signage should be consistent with the natural character of the landscape. Provide education but do not encourage additional use of rocky habitat.

Rationale: Education is an essential component of encouraging visitors to protect and enjoy birds and

other wildlife. Increased awareness promotes the Rocky Habitat Strategy and good stewardship of designated sites. It also enriches the experience of visitors. Oregon Parks and Recreation Department (OPRD) survey data (Bergerson, 2019) show that 62% of users were “least satisfied” by the amount of information and education available at parks along the central Oregon coast. Any signage projects at Cape Lookout are contingent upon coordination and support of the Cape Lookout State Park.

Metrics for Evaluation: Within one year of designation, seek funding and other grants for signage. Within four years of designation, signage is anticipated to be installed with a supporting maintenance agreement.

Potential Cooperators: ASLC, OPRD

RECOMMENDATION (R3): Work cooperatively with Camp Meriweather, OPRD, State agencies, Friends of Netarts Bay WEBS neighborhood group, and other interested organizations to implement a volunteer stewardship program for the Cape Lookout MCA. With appropriate training and data management tools, these volunteer stewards will: educate the public on appropriate use and enjoyment of rocky habitats, encourage good tidepool etiquette, document site uses, document natural resource conditions, and report any observed enforcement concerns. Stewardship programs may be seasonal dependent on programming for Camp Meriweather.

Rationale: Fostering personal stewardship is an objective of the Rocky Habitat Management Strategy. The Strategy provides policies and direction for strong, site-based management. Stewardship is an important component of site-based management. There are relatively few nearby residences as a source for volunteer stewards. While the northern end of the rocky habitat is readily accessible, the access to the intertidal habitat on the south side of the cape requires a strenuous hike or direct access for those participating in programs at Camp Meriwether. Therefore, stewardship emphasizing participation at one of the many programs operated out of Camp Meriwether has a higher potential for successfully recruiting stewards. This opportunity will help protect the rocky habitats through education. Perhaps even more importantly, it will instill a deeper appreciation of rocky habitat and the fascinating array of species dependent on these habitats. That appreciation will propagate throughout the state as camp participants return home and share their newfound appreciation.

Metrics for Evaluation: Document the number of person-days per year participating in the program.

Potential Partners: ASLC, youth activity and education organizations, OPRD, Friends of Netarts Bay WEBS neighborhood group

RECOMMENDATION (R4): Promote the use of climate change information in management decision-making and policy development in statewide, regional, and global arenas. Build climate resilience and climate change adaptation into decision-making to maximize the long-term benefits of today’s public investment in natural resource management.

Rationale: Our understanding of climate change continues to broaden and deepen, as we discover the multitude of climate change symptoms and explore predictions of future impacts. Symptoms include those that have been in the public awareness for decades (e.g. warming temperatures) as well as newly identified phenomena such as ocean acidification, which was first recognized in 2003. Many (or arguably most) natural resource management tools do not explicitly incorporate climate change information; at best, management tools include methods for addressing scientific uncertainty, which may indirectly

account for some degree of climate change uncertainty, but not all of it. Decisions made today on natural resource issues - made in a vacuum relative to climate change adaptation information - likely will not stand the test of time. Poor decisions today, assuming a static environment, will likely lead to ineffective natural resource management and negative impacts on economies that rely on resource availability for harvest, tourism, or other purposes.

Metrics for Evaluation: At the direction of the Governor, DLCD is coordinating the State of Oregon's work on the Oregon Climate Change Adaptation Framework. This framework explores the impacts of climate change in Oregon and identifies how state agencies can effectively respond to them. The Climate Change Adaptation Framework provides metrics and processes for evaluating response to climate change. Evaluation specific to Cape Lookout is the review of management plans for inclusion of how climate change is addressed in site research, monitoring, and natural resource protection. A review can be part of the biennial State of the Cape meeting.

Potential Cooperators: State and federal natural resource agencies, Tribal Nations, university scientists, non-governmental organizations, and the fishing industry.

RECOMMENDATION (R5): Develop and implement research and monitoring efforts to understand, track, and work toward predicting the effects of climate change and increased carbon dioxide on Oregon's rocky habitat species and ecosystems. Focus research toward species and ecosystems most at risk, and foster collaboration between scientists and managers to optimize research outcomes for use in management. Complement agency efforts with community science monitoring for climate change effects including ocean acidification and hypoxia. Climate change decisions should be considered at multiple scales, site-specific, regional, and statewide.

Rationale: Oregon's territorial sea is already experiencing effects of climate change and increased carbon dioxide, including ocean acidification, hypoxia, other changes in water chemistry, warming ocean temperature, changes in upwelling, and species populations shifts within rocky habitats. Intertidal habitat within the Cape Lookout designation site is predicted to lose more than 50% of its spatial extent with a 1.5m sea-level rise scenario. The explosion of purple sea urchin populations and associated decline in kelp forests is, in part, a consequence of warmer ocean temperatures. Recreational SCUBA divers have noted significant increases in purple urchin abundance and a decline in kelp for the subtidal kelp beds along the south side of Cape Lookout (pers. Comm. December 9, 2020 public webinar). A meaningful response to address climate change impacts at either a local or regional scale requires coordinated management. Desired outcomes are to increase ecosystem and community resilience and sustainability of designated sites. Rising sea level and greater storm intensity are already exacerbating beach erosion on the north side of the cape, which poses a threat to state park infrastructure.

The implementation of the community science component of the recommendation can build upon existing programs. One example is the Oregon Coastal Management Program's king tides photo initiative: <https://www.oregon.gov/LCD/OCMP/Pages/Citizen-Science.aspx#:~:text=Oregon%20King%20Tides%20Photo%20Initiative,is%20closest%20to%20the%20sun.>

Metrics for Evaluation: This recommendation including metrics for evaluation is best applied at a coastwide scale (Oregon or west coast). Implementation is subject to agency funding and allocation of both agency and academic resources. The applications of this recommendation specific to Cape Lookout Complex MCA will be evaluated at the biennial summit meeting on the State of Cape Lookout Complex



MCA (R1).

Potential Cooperators: State and federal agencies, Tribal Nations, universities, commercial fishing interests, local governments, community scientists, and non-governmental organizations.

RECOMMENDATION (R6): Evaluate the feasibility, protocols, funding mechanisms, and support to implement a biological monitoring program that will provide a better understanding of trends in biodiversity and/or key species abundance for accessible intertidal rocky habitat. Implement a monitoring program, if feasible, that engages community science in monitoring.

Rationale: According to the Oregon Conservation Strategy, investments in conservation should be strategic, effective, and accountable. The success of these investments can be measured by (1) assessing existing conditions, (2) identifying desired conditions, and (3) measuring change over time. Nearshore resources are still poorly understood relative to the state's other natural resources. Monitoring provides information that provides a scientific foundation for adaptive management. Despite many ongoing programs, nearshore resources are still poorly understood relative to the state's other natural resources (Nearshore Strategy, 2016). While monitoring to better understand trends in ecosystem health and biodiversity of rocky habitats is desirable, funding availability to expand state implemented nearshore monitoring programs to be inclusive of the proposed Cape Lookout MCA are at best uncertain. There are; however, many successful community science led intertidal monitoring programs to consider as models when evaluating the potential for biological monitoring at Cape Lookout. Trained members of the public including those without a scientific background, e.g., Oregon Shores' CoastWatch program (<https://oregonshores.org/coastwatch>) have provided relatively low cost options for monitoring. One example is sea star monitoring. For several years, the CoastWatch program of the Oregon Shores Conservation Coalition has been counting sea stars and looking for signs of illness. The data collected can be used to help researchers understand the cause of sea star wasting syndrome and how it changes with time and location. LiMPETS (Long-term Monitoring Program and Experiential Training for Students) is a community science program for students, educators, and volunteer groups. Community scientists monitor the coastal ecosystems of California's national marine sanctuaries (<https://limpets.org/what-is-limpets/>).

Metrics for Evaluation: Feasibility study completed within two years of designation.

Potential Cooperators: OPRD, Oregon Department of Fish and Wildlife (ODFW), programming at Camp Meriwether, non-governmental organizations, and university scientists, students, and members of the general public.

RECOMMENDATION (R7) Incorporate management of rocky habitats into the Cape Lookout State Park Comprehensive Plan.

Rationale: The Comprehensive Plan for the park serves as the guiding document for future recreational uses and development and protection and management of park resources at Cape Lookout State Park. It describes the vision for the park's future, the planning purpose and process, current conditions in the park, recreation demand, opportunities and constraints that affect resource protection and recreation development, issues concerning public use and management, values and goals guiding management and development, strategies for managing natural, cultural and scenic resources, and recreation development concepts. The State Park serves as the gateway for the majority of users to access rocky habitat at Cape Lookout. The success and true value of a Marine Conservation Area at Cape Lookout are

dependent upon and benefits from integration with the natural resources and recreation opportunities available within the State Park. In addition to the State Park, OPRD owns and has statutory authority for the intertidal habitat. Coordination among all the agencies with managing authority for rocky habitat within the plan area is vital. It is acknowledged that the rocky habitat plan area is not entirely within the boundaries of Cape Lookout State Park, which may affect the extent management of rocky habitat can be incorporated into the Comprehensive Plan.

Metrics for Evaluation: Evaluation criteria are subject to further review and discussions with Cape Lookout State Park. Pending park concurrence on this recommendation, completion of this recommendation may be scheduled with the next major revision of the park's Comprehensive Plan.

Potential Cooperators: OPRD, Ocean Policy Advisory Committee (OPAC), Land and Conservation Development Commission (LCDC)

RECOMMENDATION (R8): Communicate and collaborate with regional (west coast) agencies, researchers, and other entities focused on the management of rocky habitats to understand regional ecosystem trends.

Rationale: This Marine Conservation Area designation will increase the understanding of ecological trends within rocky habitats at Cape Lookout as well as inform assessments of regional trends for intertidal and subtidal ecosystems. Ecosystem-based management needs to happen at multiple geographic scales (site-specific and regional). Natural temporal variation in rocky intertidal systems can be quite high, and can occur on the scale of months (seasonal), years, and even decades, so long-term monitoring at multiple geographic scales is essential for separating natural change from human-induced. Sharing data, monitoring methods, and management practices among all rocky habitat designations within Oregon and a wider regional audience leads to more effective management. Identifying ecosystem regional trends provides greater opportunity for managers to implement adaptive management practices that are responsive to changing conditions.

Metrics for Evaluation: The Multi-Agency Rocky Intertidal Network (MARINe), is a regional consortium of government and non-government entities established to standardize the collection of rocky intertidal data throughout the Pacific coast. Monitoring methods and metrics for evaluating regional trends can be developed through collaboration of cooperators to be consistent with regional databases.

Potential Cooperators: ODFW, Washington Department of Fish and Wildlife (WDFW), California Department of Fish and Game (CDFG), Hatfield Marine Science Center, Oregon State University (OSU), Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO).

RECOMMENDATION (R9): Coordination between managing agencies and researchers to develop rapid qualitative survey methods for early identification and management responses to invasive species. Implement at a coastwide scale among all rocky habitat designations.

Rationale: Available information indicates large scale invasive species problems are occurring in marine coastal systems in Oregon as well as for other coastal states and provinces. There is a general lack of information, which is not indicative that invasive species problems are a minor concern. Once a species is introduced it can affect food webs, introduce toxins, alter habitats, and out-compete native species. Early detection and quick management response to invasive species problems are cost-effective and can treat the problem before an invasive species becomes well established. A network of designation sites

along the coast can serve as a living laboratory for early detection of invasive species problems. Implementation is viewed as a long-term goal.

Metrics for Evaluation: ASLC will advocate that a management approach to invasive species be incorporated into the Rocky Habitat Management Strategy.

Potential Cooperators: ODFW, OPRD, Department of State Lands (DSL), OPAC, PISCO, research institutions.

RECOMMENDATION (R10): Encourage and support community science programs through cooperation among managing agencies, researchers, and non-governmental organizations to identify and implement monitoring programs that help fill information gaps for the Cape Lookout Marine Conservation Area (MCA). Develop and implement at least one additional community science project within the first two years of designation.

Rationale: Community science allows monitoring to operate on a large-scale, ongoing basis, which provides scientists with large and diverse data sets that might have been otherwise unavailable. Volunteer efforts of community scientists allow rapid scaling for relatively little capital. Additionally, it provides opportunities for two-way engagement between the public and scientists, which can lead to increased site stewardship and provide linkages between the community and the Marine Conservation Area. Pending funding for program development and management, community science projects may be oriented towards a rotating group of youth participating in environmental education programs at the nearby Camp Meriweather. The scope and feasibility of a community science program is subject to funding and expertise needed to establish a program. Audubon has successfully initiated several community science programs.

Metrics for Evaluation: At least one local community science project within the first two years of designation. Adequate participation for programs to be effective.

Potential Cooperators: Audubon Society of Lincoln City (ASLC), Camp Meriweather, Tillamook County Outdoor School, surfriders, schools, community colleges, and Hatfield Marine Science Center.

RECOMMENDATION (R11): Provide education on how to avoid wildlife disturbance when operating drones. Educational strategies include onsite volunteer stewards, social media, and signage.

Rationale: Drones, unmanned aerial vehicles (UAVs), or remotely piloted aircraft (RPAs) are relatively new components of human airspace use; however, they are increasingly used worldwide by laypeople and for ecological research. Drones are flown at low altitudes above ground level where most flying species live (Dolbeer 2006). However, there is little debate on their possible effects on wildlife (Hayes et al. 2014), and this has prompted recommendations for the study and minimization of drone disturbances to wildlife. (Lambertucci et al. 2015). Scientific literature on the subject is sparse, but it suggests that behavioral responses of wildlife to drones exist. Moreover, there may be other unmeasured effects on disturbed animals (e.g., physiological, abandoning nests, disruption of feeding, fitness). ASLC members and local coastal stewards have observed disturbances of seabirds. Proper use of drones operated at altitudes and distances that do not disturb nesting seabirds have potential benefits for counting and monitoring seabird populations. A SLC will take the lead on flyer design and distribution but will require funding for production.



Metrics for Evaluation: Volunteer stewards routinely note observed recreational use including drone operation. Direct observation of disturbance incidents is unlikely due to the dispersed use as well as site geography being cliffs. Park staff and staff at Camp Meriweather can be periodically queried as to the frequency of observing drones being operated at the cape although the operation of a drone is not indicative of disturbances, and hopefully better-informed operators will avoid disturbance. The US Fish and Wildlife Service (USFWS) conducts annual coastwide surveys of shore nesting seabirds. While species diversity and abundance are affected by multiple abiotic and biotic factors, trends may suggest the effectiveness of informing users how to avoid wildlife disturbances.

Potential Cooperators: ASLC, Portland Audubon, local tourist commissions, and Oregon Coast Aquarium, USFWS.

RECOMMENDATION (R12): Make digital and printed materials available at Garibaldi harbor and boat launches to inform watercraft operators on appropriate precautions to avoid disturbing seabirds during nesting season and pinnipeds at haulouts.

Rationale: Education is an essential component of encouraging residents and visitors to protect and enjoy birds and other wildlife. Increased awareness promotes the Rocky Habitat Strategy and good stewardship of designated sites. This management recommendation was included in the 1994 designation for Cape Lookout but was never implemented. The USFWS already has an excellent publication that provides educational information on how to identify and avoid disturbance of wildlife <https://www.fws.gov/uploadedFiles/Pacific%20Northwest%20Seabirds%20Brochure.pdf>.

Metrics for Evaluation: Boating activity at Cape Lookout is dispersed. Many water-based recreationists seek out the isolated character of Cape Lookout's rocky shoreline. Direct observation of disturbance incidents is unlikely due to the dispersed use as well as site geography being cliffs. The effectiveness of informational flyers can be inferred from the number of flyers per season picked up by boaters. The USFWS conducts annual coastwide surveys of shore nesting seabirds. While species diversity and abundance are affected by multiple abiotic and biotic factors, trends may suggest the effectiveness of informing users how to avoid wildlife disturbances.

Potential Cooperators: USFWS, ASLC, OPRD, Camp Meriweather.

RECOMMENDATION (R13): Coastwide ODFW fish harvest regulations for commercial fish harvest.

Rationale: Commercial fish harvest is regulated by multi-state management processes such as the Pacific Fishery Management Council governed by the Magnuson-Stevens Fishery Conservation and Management Act. There is currently very little commercial fish harvesting within nearshore areas at Cape Lookout. Fishing pressure is expected to remain light due to hazards of wave action when fishing near the cliffs. Coastwide harvest regulations are established to protect the affected resources with no additional regulations necessary for the designation area.

Metrics for Evaluation: None required.

Potential Cooperators: ODFW

RECOMMENDATION (R14): Coastwide ODFW fish harvest regulations for recreational (sport)



harvest with the exception of any emergency or temporary closures as identified and implemented by ODFW based on adaptive management response to comparison site monitoring data.

Rationale: Recreational fishing activity is light in nearshore areas at Cape Lookout. Boat launches and harbors are at some distance from the cape. Shore based recreational fishing is limited by the difficulty in access due to cliffs. SCUBA divers report excellent fishing opportunities for divers. Continued access and enjoyment are provided by coastwide harvest regulations, which are established to protect the affected resources. No additional regulations appear necessary for the designation area.

Metrics for Evaluation: None required.

Potential Cooperators: ODFW, charter boat operators

RECOMMENDATION (R15): No take of shellfish and marine invertebrates, except clams, Dungeness crab, red rock crab, mussels, piddocks, scallops, squid, shrimp, sand crab, and other invertebrate species that ODFW determines are appropriate to be taken. Sea urchins may be commercially harvested according to coastwide regulations. Harvest of sea urchins (commercial or as part of habitat restoration) will be promoted when monitoring indicates urchin populations are at levels likely to lead to overgrazing of kelp beds. This recommendation does not exclude the take of invasive species as allowed by ODFW. Scientific/Education harvest will require a permit from ODFW and OPRD, which may be issued if the harvest aligns with the management goals of the Cape Lookout MCA. Harvest by members of federally recognized Tribal Nations is unaffected by this recommendation.

Metrics for Evaluation: None required. The recommendation of no take for uncommonly harvested invertebrates primarily affects souvenir and aquarium collection; the latter is by permit. Steward reports will document any observed take of species closed to harvest.

Rationale: Ecological linkages within and among rocky intertidal areas help shape biological communities and contribute toward the biological abundance of this habitat type. The diversity of plants, herbivores, and predators in the intertidal and shallower subtidal zones create complex food webs and interdependencies among organisms. This complexity of organism interrelationships makes the outcome of natural or human disturbance to intertidal habitats difficult to predict or measure. Intertidal habitats are linked to surrounding environments by ocean currents and organism movements. High populations of urchins to the point of depletion of kelp as a food source can lead to sea urchin barrens with no commercial value to the urchins as well as loss of the habitat complexity associated with healthy kelp forests. It is unknown if commercial harvesting of purple urchins has the capacity to reduce urchin populations before they get out of control. At Cape Lookout, the no-take of invertebrates recommendation is aimed at protecting invertebrate species that are not normally associated with commercial or recreational harvest. The Oregon Nearshore Strategy recommends focus on species whose management and conservation is not provided for by other means (i.e., species that do not already have well-established management and/or funding mechanisms in place).

This recommendation aims to maintain existing access and invertebrate harvest opportunities while protecting invertebrate species for which there is little information on abundance and ecological connections. ODFW has the expertise and regulatory authority to make determinations as to what invertebrate species may stay open subject to coastwide regulations. Some species predominantly occur within intertidal areas that are inaccessible at Cape Lookout due to wave action so the effect of recreational harvest may be minimal. An example is gooseneck barnacles.



Potential Cooperators: ODFW, OPRD,

RECOMMENDATION (R16): No commercial or personal use harvest of kelp except as incidental to other permitted activities. Harvest for scientific or educational purposes by permit from OPRD or DSL. Harvest of other marine plants is by coastwide regulations. Harvest by members of federally recognized Tribal Nations is unaffected by this recommendation.

Metrics for Evaluation: DSL does not issue a lease for the harvest of less than 2,000 lbs of kelp for personal use. Metrics for evaluation are mostly limited to chance stewardship observations. Annual surveys or the aerial extent of canopied kelp beds are not likely to be able to distinguish small harvests from natural variation.

Rationale: Kelp forests comprise one of the ocean's most diverse ecosystems. Many fish species use kelp forests as nurseries for their young, while seabirds and marine mammals like sea lions, sea otters, and even Gray whales use them as shelter from predators and storms. Kelp beds at Cape Lookout are a unique feature for the northern Oregon coast. Kelp forests are highly dynamic. They can appear and disappear dependent on oceanographic conditions and the population size of primary herbivores. Prohibition kelp harvest within the MCA ensures the ecological integrity of this habitat.

Potential Cooperators: DSL, ODFW

How does the proposed site improve upon or fill a gap in addressing objectives/policies that are not currently addressed by other designated sites or management measures?

Please address this question in relation to the following topics: a) Maintenance, protection, and restoration of habitats and natural communities. b) Allowing for the enjoyment and use of the area while protecting from degradation and loss. c) Preservation of public access. d) Consideration for the adaptation and resilience to climate change, ocean acidification, and hypoxia. e) Fostering stewardship and education of the area or coastwide.

This designation creates an opportunity for site-specific ecosystem-based management that provides long-term ecological, economical, and social benefits to the natural resources at Cape Lookout. ASLC commits to hosting a State of the Cape biennial meeting to bring community members, agencies, Tribal Nations, and interested organizations together to discuss and evaluate progress toward achieving the designation goal and objectives.

a) In 1975, Cape Lookout was designated an Oregon Natural Heritage Area. The cape was described as an undisturbed standard against which to monitor environmental quality, and an area from which to accumulate baseline data on coastal headland terrestrial, marine, and aquatic ecosystems. The Cape Lookout State Park protects near pristine forest and cliff habitats above the mean high tide. The Marine Conservation Area designation is a mechanism to provide protection and holistic management for rocky habitat on the cape below the mean high tide. Protection of intertidal and subtidal habitats and the species dependent on them will benefit from a public that is better informed on the ecosystem services and biodiversity exemplified by the Cape Lookout MCA. Opportunities for interpretive signage at the headland overlook or trailheads about seabirds, whales, and ecology of the terrestrial and marine ecosystems can be fulfilled through this designation. The close proximity of Cape Lookout State Park campground and the popularity of the hiking trail on the cape provide excellent potential for additional

educational and interpretive efforts. Interpretive signs explaining seabird use, whale migration, and the unique upland forest community could be placed at the end of the cape or at trailheads. Interpretive efforts to protect natural habitats and wildlife on the south intertidal area are primarily initiated through programs operated out of Camp Meriwether. The designation benefits the continuation and expansion of environmental education and experiential learning programs at Camp Meriwether by highlighting the high value of these rocky habitats. Leaders of on-site environmental education programs and nearby residents will be encouraged to take on stewardship roles, which provide additional protection to natural resources. Management recommendations address the need for monitoring and early response to invasive species. Boaters and shore based recreationists will be better informed on how to maintain appropriate distance to avoid disturbing nesting seabirds.

b) This proposal emphasizes education on how to responsibly enjoy rocky habitats while protecting its natural resources. Environmental education programs initiated out of Camp Meriwether engage the public from a wide geographic area throughout Oregon and other states. The management recommendations call for boater education rather than restricting access in order to protect nesting seabirds. No change to coastwide harvest regulations for fish and popular invertebrates maintains access and enjoyment while these regulations protect the resources.

c) Much of the rocky habitat at Cape Lookout is inaccessible from land due to high cliffs. The state park discourages climbing on the cliffs by placing cable barriers along precipices at the top of the headland. Access to rocky habitats at the northeast corner of the cape from the Cape Lookout campground and day-use area should be maintained. Elsewhere, maintain access to rocky habitats where feasible and consistent with land manager goals and objectives. Camp Meriwether has indicated it is seeking to expand its programming through schools and other third-party users, thereby maintaining or increasing access through organized activities. Providing a safe environment for all ages participating in organized experiential learning programs focused on the southern shoulder of Cape Lookout is a priority. Access for members of federally recognized Tribal Nations is unaffected by this designation. Tribal Nation agreements with the state cannot be altered through the Rocky Habitat designation proposal process. Federally recognized Tribal Nations may have, or obtain, consent decrees or other intergovernmental agreements, which outline separate rights or harvest regulations.

d) This MCA creates a platform for consideration of climate change as part of decision making for management of rocky habitat at Cape Lookout. This MCA builds climate resilience and climate change adaptation into decision-making to maximize the long-term benefits of today's public investment in natural resource management. Agency efforts will be complemented with community science monitoring for climate change effects including ocean acidification and hypoxia.

e) There are few nearby residences so the recruitment of long-term area stewards is challenging. Area and coastwide stewardship should focus on short-term stewardship actions implemented through organized groups including those based out of Camp Meriwether. The learning experiences of tidepool walks, beach cleanups, and ecology of rocky habitats will help foster a lifelong appreciation and coastwide stewardship for participants. Stewardship will also be fostered through a biennial State of the Cape meeting sponsored by ASLC.

Site Information

To the best of your knowledge, please provide the following information on your proposed rocky habitat site.



Name of Proposed Site

What is the general site name of the area of your proposed location? (Example: Haystack Rock, Cannon Beach)

Cape Lookout

Site Location

What is the specific location of your proposed site (if applicable)? Use common place names, latitude/longitude, and geographic references to identify the location of the site.

Cape Lookout is located ten miles southwest of Tillamook, Oregon. Sections 1, 2, and 3 of Township 3 South, Range 11 West and Section 36 of Township 2 South, Range 11 West of the Willamette Meridian. The plan area includes intertidal and subtidal rocky habitats at the base of the cliffs on both the north and south sides of the cape. The plan area also includes boulder/sand intertidal habitat and a shale/cobble beach located at the southeast shoulder of the cape.

General Site Description

Cape Lookout is a long, thin strip of land that juts out a mile-and-a-half into the Pacific Ocean. Perched on the edge of the continent, ten miles southwest of Tillamook, the cape is one of the most beloved headlands on the Oregon coast. Samuel Boardman, Oregon's first State Parks Superintendent, called Cape Lookout State Park one of Oregon's crown jewels. It boasts beautiful trails through Sitka Spruce, and breathtaking cliffs that drop 400 feet to the sea. What began as volcanic lava flow, has become valuable habitat, alive with nesting seabird colonies, fish, a multitude of intertidal and subtidal invertebrates, kelp forests, seals, sea lions, and migrating gray whales.

The name Cape Lookout is the result of historical confusion among early explorers and surveyors. An early British mariner named John Meares gave the name Cape Lookout to a promontory that is today his namesake. The U.S. Coast and Geodetic Survey mistakenly labeled a cape ten miles south as Cape Lookout and that location name was widely used by mariners. When the survey realized its mistake, it chose to leave the now Cape Lookout with that name and assign the name Cape Meares to the northerly promontory.

In 1975, the cape was registered as a Natural Heritage Conservation Area in the Oregon Natural Heritage Plan. The purpose of the registration was to: "1) protect sea bird nesting habitat; 2) protect old growth spruce stands; 3) protect headland ecosystems; and 4) highlight this area to scientists and educators as an undisturbed standard from which to accumulate baseline data on coastal headland terrestrial and marine ecosystems" (Juday 1975).

The south side of Cape Lookout was designated in the 1994 Rocky Shore Strategy as a habitat refuge. This designation was never implemented.

The cape is a narrow wedge of basaltic lava with vertical sea cliffs 400 feet high (Mangum 1967). Sandstone of the Astoria formation underlies the basaltic cliffs on the south side of the cape. Erosion of both the sandstone and basaltic cliffs has formed a large boulder field providing rocky intertidal habitat along the south side of the cape.



Site Boundaries

Provide a written description of the intended boundaries and scope of the proposed area (e.g. intertidal area, subtidal area, depth contour, etc.) All proposals must include a map of the proposed site boundaries.

Coordinates: (approximate as delineated in SeaSketch)

Lat 45.35442 Long. -123.972714

due west to Lat 45.354465 Long. -123.97898

southward along the 5m depth contour to

Lat. 45.346246 Long. -123.990395

southwestward to Lat 45.339927 Long. -124.008285

then south to Lat. 45.336564 Long. -124.009343

southeastward to Lat. 45.335422 Long. -124.00636

continuing SE along the seaward edge of subtidal hard substrates to Lat. 45.335313 Long. -123.989772

east to Lat. 45.334668 Long. -123.9728 returning to the northeast corner of the plan area along the mean high tide contour.

The seaward boundary is generally defined on the north side of the cape by a line that is, on average, approximately 75 - 100 m horizontal distance from the mean high tide line or by the 5 m depth contour, whichever is greater in area. On the south side of the cape, the seaward boundary is drawn to include a subtidal hard substrate submerged reef that parallels the base of the cliffs and the boulder/sand matrix intertidal rocky habitat located at the southern shoulder of the cape. The proposed boundary on the south side of the cape is similar to that of the habitat refuge designated in 1994.

The shore boundary of the proposal area is established at the mean high tide contour as automatically snapped by SeaSketch. Establishing the shoreward boundary as defined by the mean high tide is consistent with many existing agency management directives. The extent of rocky habitat, however, as defined in the Rocky Habitat Management Strategy, extends landward to the statutory vegetation line, or if unvegetated, the contour at 16 ft above sea level. Management area plans often cross multiple jurisdictions. Therefore, although the plan area boundary is at the mean high tide, our management recommendations for this proposal consider rocky habitat needs and functions inclusive of the area between mean high tide and the vegetation line. Sea level rise resulting from climate change is but one consideration why a holistic management approach is needed and should consider rocky habitat up to the vegetation line.

The plan area encompasses 347 acres with 5.4 miles of shoreline. Most of the shoreline is bounded by basalt cliffs. Most of the intertidal area is located at the southern shoulder of the cape. Subtidal areas are dominated by a hard substrate shelf on the south side of the cape and a soft sedimentary shelf along the north side. The maximum depth of the plan area is 21 m. There are 33 islands and offshore rocks within the plan area comprising a combined total of two acres. These island inclusions are within the plan area up to the mean high tide contour. The plan area is not intended to include federal lands managed by US Fish and Wildlife Service (USFWS), which is generally offshore rocks and islands above the mean high tide. A map of the plan area as prepared in SeaSketch is attached to this proposal.

Site Access Information

How is this site commonly accessed?



Most of the rocky habitat along Cape Lookout is not accessible from land due to the high cliffs. A modest-sized parking lot at the top of Cape Lookout just off Cape Lookout Road provides access to the popular 2.5-mile trail out to the Cape's western tip, a popular spot for viewing migrating whales in the winter and spring. The trail winds through the Cape's magnificent old-growth Western Hemlock and Sitka Spruce forest and provides dramatic views to the north and south. The first part of the trail is wide and reinforced with gravel, but then narrows and is often rooted and muddy. At the tip, a cable serves to warn hikers from descending the steep cliffs to the ocean, but it is not an effective barrier.

The parking lot also provides access to the Oregon Coast Trail. The northern section winds 2.3 miles down to the park's campgrounds and facilities located near the beach and on Netarts Spit. The southern section, which descends 840 feet with several switchbacks, leads 1.7 miles down to a wide, sandy beach that stretches all the way to Sand Lake. Intertidal boulder habitat at the north end of this beach near the trail endpoint provides opportunities for tidepool exploration. The trail down from the upper parking area is badly eroded in many spots, primarily from users cutting the switchbacks. The trail is popular with surfers who carry their boards with them down to the beach. More than a thousand youth per year from around the state and nearby states participate in programs at Camp Meriwether. In addition to the Boy Scouts, the camp has been used by other organizations including OMSI and Tillamook County Outdoor School. Participants in camp programs have access to the rocky intertidal habitats, tidepools, and views of the cliffs along the south side of the cape. Access to the southern base of the cape is also available by traveling along the beach northward from the Sand Lake Recreation Area. 4WD motorized vehicles can approach within approximately 1.25 miles of the plan area. Signs are posted beyond which motorized vehicles are prohibited. Some surfers access the waters on the south side of the cape from this route. The Sand Lake Recreation Area is on federal land managed by the U.S. Siuslaw National Forest.

Access from the Cape Lookout State Park campground and day-use area to the base of cliffs at the northern shoulder of the cape is available along the beach and a foot trail that parallels the shore through a mature forest.

The rocky habitat of the cape can be accessed by boat. The nearest harbor is at the City of Garibaldi, 15 nautical miles north of the cape. Kayaks and small watercraft can be launched from an unimproved boat launch at Netarts Bay that is 5.2 nautical miles from the cape and requires crossing the surf at the outlet of the bay. Dory boats launched on the beach at Pacific City have to travel a distance of just over 7 nautical miles to reach Cape Lookout.

What is your understanding of current management at this site?

This may include site ownership, management authorities, and other key stakeholders.

Cape Lookout above the mean high tide level is owned by OPRD. However, 975 acres comprising Cape Lookout Lighthouse Reservation was acquired from the U.S. Commerce Department Lighthouse Service by a deed which includes a provision that allows the Federal government to resume ownership at any time without the consent of the state.

Multiple agencies have authority for managing resources and activities near, over, or on rocky habitat for Cape Lookout. Generally speaking:

- **Oregon Department of Fish and Wildlife (ODFW)** manages harvest of fin fish and invertebrates (ORS 506.109 and ORS 496.012).



- **Oregon Parks and Recreation Department (OPRD)** manages land and marine plants in the intertidal zone and on the beach as well as public access issues, and contains the State Historic Preservation Office that manages cultural resources and archeological sites. OPRD also manages Cape Lookout State Park, which encompasses all uplands on the Cape, a day-use area, and a campground just north of the cape. (ORS 390.610, ORS 390.705, and ORS 358.910).
- **Department of State Lands (DSL)** manages subtidal marine plants and removal/fill activities on the seabed floor, (ORS 274.710 ORS 196.805).
- **Oregon State Police (OSP)** enforces rules and laws of the above agencies.
- **Department of Environmental Quality (DEQ)** implements marine water quality standards in state waters, which are triggered by an array of actions (ORS 468.583 and ORS 468B.015)
- **US Fish and Wildlife Service (USFWS)** owns and manages offshore islands and rocks above the mean high tide and separated from land at high tide. These lands are part of the Oregon Islands National Wildlife Refuge (National Wildlife Refuge System Administration Act (16 USC § 668dd-668ee), and Oregon Islands National Wildlife Refuge; Wilderness Act. (16 USC §§ 1131-1136)). Submerged portions of offshore rocks and islands are managed as noted above by DSL.

The **USFWS** also manages seabirds and migratory birds as authorized by the Migratory Bird Treaty Act (16 U.S.C. 703-712), the Fish and Wildlife Improvement Act of 1978 (16 U.S.C. 742l), and the Fish and Wildlife Act of 1956 (16 U.S.C. 742a-j). Marine mammals using rocky habitat at the site are managed under the Marine Mammal Protection Act (MMPA) 16 USC 1361-1407. The USFWS is responsible for ensuring the protection of sea otters and marine otters, while NOAA has the responsibility to manage pinnipeds including seals and sea lions, and cetaceans (whales and porpoises). Other management authorities include the Federal Endangered Species Act - ESA: 16 U.S.C. §1531 et seq., managed by USFWS and NOAA.

The management of commercial fisheries is subject to the management authority and multistate agreements of the Pacific Fisheries Management Commission.

State agency 'authority' means that agencies have the power to manage the resource as needed. Agencies can:

- 1) **create new rules** (formally OARs or Oregon Administrative Rules) to respond to management concerns through a rulemaking process;
- 2) **apply existing rules and permits** to address the management need;
- 3) **create management guidelines** that do not carry the weight of law (non-regulatory), but help provide sufficient detail to address a management concern.

The Cape Lookout Comprehensive Plan (2012) serves as the guiding document for future recreational uses and development and protection and management of park resources at Cape Lookout State Park. It describes the vision for the park's future, the planning purpose and process, current conditions in the park, recreation demand, opportunities and constraints that affect resource protection and recreation development, issues concerning public use and management, values and goals guiding management and development, strategies for managing natural, cultural and scenic resources, and recreation development concepts.

Tillamook County maintains Cape Lookout Road. The county is responsible for local implementation of the Coastal Management Plan. The County also administers and manages the Tillamook County Comprehensive Plan, which provides a statement of Tillamook County's overall policies regarding the nature of future growth and development in the county including shorelines.



Camp Meriweather includes approximately 800 acres adjoining Cape Lookout to the south. The camp is owned and managed by the Boy Scouts of America with administrative offices in Portland, Oregon.

Site Uses

*To the best of your knowledge, please provide the following information **based on the current site management.***

Site Uses

Describe the current users and uses present at the site. Uses may encompass recreational, commercial, cultural, and scientific.

Hiking, driving, picnicking, camping, bird watching, whale watching, wildlife viewing, surfing, SCUBA, tidepooling, photography, spiritual communion and worship, storm watching, sightseeing, boat-based fishing (charter and personal), shore angling, crabbing, clamming, paragliding, and kayaking are uses of Cape Lookout. The Boy Scouts, OMSI, Tillamook Outdoor School, and other organizations based out of Camp Meriweather use the intertidal habitat on the south shoulder of the cape for educational programs. The Cape Lookout State Park campground and day use area experience the heaviest use. Seasonal use of the trail to the tip of the cape also has heavy use. Commercial fishing boats use waters on the leeward (south) side of the cape as a temporary harbor anchoring for the night when on multi-day fishing trips.

The OPRD has conducted random surveys of park users at Cape Lookout in 2011 (950 users) and 2017 (1,050 users). Day users as well as campground users were surveyed. Table 1 lists user responses to activities most commonly engaged in at Cape Lookout State Park. (Note: All tables in this proposal are included in Attachment 01: CL Proposal Tables and Figures due to formatting limitations of SeaSketch). The data in Table 2 is for park users in the parking lots and campground; it is not representative of water-based users. The majority of those surveyed (68%) spent 1-2 nights at the state park. Non-local visitors accounted for 91% of those surveyed.

Camping	94-97%
Hiking	83-85%
Beach Combing	76-80%
Fishing	4-5%
Surf fishing	<1%
Crabbing	<1%
Clamming	<1%
Spearfishing	<1%
Boating	2-5%
Kayaking	<1%
Wildlife viewing	
Birding	<1%
Tidepooling	<1%

The number of people visiting Cape Lookout State Park shows an increasing trend. User count data compiled by OPRD for Cape Lookout State Park are listed in Table 2 and Table 3 (Attachment 01: CL Proposal Tables and figures).

	No. of Visitors	No. of Visitors	
Day Use	132,484 in 2011	141,826 in 2017	Trend is increasing
Camper nights	108,002 in 2011	126,716 in 2017	Trend is increasing
Parking lot visits	582,908 in 2016	number and trend is increasing	

Year	2010	2011	2012	2013	2014
Camper Nights	112,673	108,002	108,367	112,414	115,567
Day Use Estimate	159,212	132,484	177,654	136,138	138,720
Year	2015	2016	2017	2018	2019
Camper Nights	126,278	124,041	125,716	131,053	131,539
Day Use Estimate	149,378	144,780	141,826	141,626	141,394
Data provided by OPRD					

Table 4 (Attachment 01: CL Proposal Tables and Figures) presents socio-demographics for visitors to the state parks along the Oregon central coast. Socio-demographic data specific to the state parks at Cape Lookout are not available.

Female	60%	
Male	40%	
Age	Avg. 49 years	22% Ages 40-49 Years
Household Income	Avg. \$75,600 / year	18% Between \$50,000 to \$69,999
Ethnicity	86% Caucasian white	96% English as the primary language
	5% LatinX	
	4% Asian	
Residence	95% United States	61% Oregon, 11% Washington, 10% California
		17% Portland Metro
	3% Canada	
<i>Visitor Survey of Day use and overnight use at Oregon Coastal Regional Parks (2019) T. Bergeron</i>		

Charter and private boats use the waters around Cape Lookout for recreational fishing, sightseeing, and access to SCUBA diving. Commercial fishing boats occasionally anchor overnight on the south side of the cape (outside of the plan area) as semi-protected waters. Sea kayaking at Cape Lookout has gained in popularity in recent years. Recreational boaters seek out Cape Lookout for its uncrowded, near-wilderness characteristics and excellent ground fishing opportunities.

Surfing on the south side of Cape Lookout has been described as legendary when conditions are right. It requires an arduous hike in from either parking areas off Cape Lookout Road or a combination of 4WD transport and hiking in from Sandlake Recreation Area to the south. A small minority have, at times, been reported to be hostile towards newcomers (<https://magicseaweed.com/Cape-Lookout-Surf-Guide/315/>). The effort required to access this area for surfing assures that it is never crowded.

For thousands of years along the Oregon Coast, tribal peoples fished for salmon and steelhead in the ocean, rivers, and streams. Along the rocky shores, they gathered shellfish, clams, mussels, abalones, oysters, limpets, and periwinkles, as well as crabs and sea urchins. “Old village sites,” writes Philip Drucker in *Indians of the Northwest Coast*, “are marked by great mounds consisting mostly of the shells discarded after meals [pp 41-42].”

Today, at many different sites along the Oregon Coast, tribal members fish and gather more than 150 species for both subsistence and cultural use. According to Sabra Marie TallChief Comet, “Tribal



members are very dependent on the health of coastal ecosystems for food, culture, and recreation and are invested stakeholders in the future management of their harvest areas (“Informing Oregon’s Marine Protected Area MPA Baseline: Past and Present Tribal Uses of Marine Resources,” p. 46).” Comet reports that the coastal and marine species most commonly gathered by members of the Confederated Tribes of the Siletz Indians include Nuttal’s Cockle, Gaper Clam, Soft Shell Clam, Lamprey, Razor Clam, Butter Clam, Dungeness Crab, and unspecified mussels (pp. 87-88).

According to the 2012 Cape Lookout State Park Comprehensive Plan, archeological evidence indicates that the park was the site of a tribal village. One of the stated goals of the State Park is to “work with the Confederated Tribes of the Grand Ronde and the Confederated Tribes of the Siletz Indians to highlight traditional ways of life in the area in interpretive media and programs (p. 144).”

Site Infrastructure

Please summarize existing site infrastructure. For example: large parking lot, public restrooms, 10-foot stairway leading to cobble beach, etc.

Cape Lookout State Park is 12 miles south of Tillamook on Three Capes Scenic Loop. The Park stretches from Netarts Spit in the north to Camp Meriweather in the south. The narrow Cape juts 1.5 miles out into the Pacific.

Samuel Boardman, Oregon’s first State Parks superintendent, wanted to limit the development of Cape Lookout State Park, preferring that it be managed as a natural preserve. Nevertheless, in the 1950s campgrounds were developed in the northern section of the park next to the beach and on Netarts Spit. The first campground opened in 1954. Today Cape Lookout State Park is a popular destination for campers. The park is accessed from the county maintained Cape Lookout Road. Amenities at the state park include:

- 38 full-hookup sites for recreational vehicles
- 170 tent sites with water nearby
- One electrical site with water
- 13 yurts (6 pet-friendly)
- Six deluxe cabins (3 pet-friendly)
- Two group tent camping areas
- Hiker/biker camp
- Interpretive center
- Flush toilets
- Showers
- Firewood for sale
- Ice Sales
- RV dump station
- Universal Access: Two campsites and one cabin are accessible to campers with disabilities. Two yurts have ADA compliant ramps and features.

Water for the park is drawn from Jackson Stream. The park has its own sewage discharge system, and RVs have access to a dump station.

Open year-round, the Cape Lookout State Park can accommodate approximately 800 overnight visitors

during peak summer months. Day-use facilities include a 300-car parking lot, 72 picnic tables, a group picnic area with shelter, restrooms, and a soft surface quarter-mile nature trail with interpretive signage. Administrative facilities include an office, maintenance yard, and fee booths.

A major concern for park management addressed in the 2012 Cape Lookout State Comprehensive Plan is the vulnerability of the campgrounds. The shoreline is receding, sea level is rising, and storm activity is increasing. All of these factors are having a relentless impact on the artificial dune structure built in 1999-2000 to replace a large seawall that failed. According to the Comprehensive Plan, the life expectancy of the dune structure is “uncertain.” The plan recommends that some of the camping site loops be moved eastward and that the sewage drain fields on the Netarts Spit be relocated. Visitors to the park are advised to be careful walking to the beach via the cobble-sized stone revetment built to stabilize the man-made dune.

A modest-sized parking lot at the top of Cape Lookout provides access to the popular 2.5-mile trail out to the cape’s western tip, a popular spot for viewing migrating whales in the winter and spring. The trail winds through the cape’s magnificent old-growth Western Hemlock and Sitka Spruce forest and provides dramatic views to the north and south. The first part of the trail is wide and reinforced with gravel, but then narrows and is often rooted and muddy. At the tip, a cable serves to warn hikers from descending the steep cliffs to the ocean, but it is not an effective barrier.

The parking lot also provides access to the Oregon Coast Trail. The northern section winds 2.3 miles down to the park’s campgrounds and facilities located near the beach and on Netarts Spit. The southern section, with several switchbacks, leads 1.7 miles down to a wide, sandy beach that stretches all the way to Sand Lake. Hikers have made major cuts to the switchbacks along the entire route. The trail is popular with surfers who carry their boards with them down to the beach. The northern end of the beach fronts Camp Meriweather and is quite isolated, not attracting many park visitors. The southern end is open to off-road vehicles.

Camp Meriweather, owned and managed by the Boy Scouts of America and located immediately south of Cape Lookout, has residential camp and education facilities. Infrastructure at the two camps (collectively referred to as Camp Meriweather in this document) include:

- 26 group campsites
- 2 dining halls
- 4 showerhouses
- 2 staff housing areas
- 2 camp caretaker houses
- large shop
- potable water supply system
- septic system
- access road from Cape Lookout Road

The construction of a new environmental learning center is in progress.

Potential Future Site Uses

Please describe potential future site uses of the proposed site if there was no change to current site management. Much like current uses, future uses may encompass recreational, commercial, cultural, and scientific, as well as others not listed.

All current uses are expected to continue into the future. The OPRD user survey data strongly suggest that numbers of users are increasing. Future demand may exceed the capacity of existing services and infrastructure. Overcrowding has been a consistent concern voiced by users interviewed as part of OPRD regional surveys. Future use for fish, shellfish, and other invertebrate harvest is subject to regulations imposed by ODFW.

In preparation for the 2013-2017 Oregon Statewide Comprehensive Outdoor Recreation Plan (SCORP), the Oregon Parks and Recreation Department (OPRD) contracted with Oregon State University to conduct a statewide survey of Oregon residents regarding their 2011 outdoor recreation participation in Oregon. The popularity of outdoor recreation activities is indicated by the percent of respondents participating in an activity: tidepooling 40%; sightseeing 60%; bird watching 23%; nature and wildlife observation 34%. Demand for these popular activities is likely to continue in the future. The Oregon Resident Outdoor Recreation Demand Analysis, Planning Region 1 (north and central coast) supports the Statewide Comprehensive Outdoor Recreation Plan. The findings of this analysis identified preserving open space and promoting tourism among the highest regional outdoor recreational future demands.

The Cape Lookout State Park Comprehensive Plan (2012) describes future use and management actions. Erosion of beaches near the day-use area and campground are a major concern. New campground facilities will be constructed in suitable areas east of the existing park development between the county road and the existing main park road. Most campground development will consist of a combination of conventional primitive drive-in sites and walk-in sites supported by central restrooms and central water facilities. A smaller portion of campsites may have electric or full-service hookups. A new program area developed between the existing and new campgrounds will serve as the park's interpretive hub.

Day use beach access parking for the park, which is now concentrated by the picnic area, will eventually be redistributed to new beach access parking areas, allowing the existing parking lot to be downsized. The reclaimed parking area will be landscaped for expansion of the adjacent picnic area, hiker biker camp, and cabin area.

Two existing dedicated Natural Heritage Areas, which cover the cape headland and the Netarts Spit, will continue to be protected and managed under guidelines outlined in the respective Dedication Agreements for these areas.

The Boy Scouts of America are updating their camp conservation and long-term plans. These documents will guide future uses at the camp including habitat stewardship for the next ten years. Until these plans are complete, it is premature to define future uses of rocky habitat by the camp and the organizations utilizing the camp.

Impacts on Site Uses

How will altering this site's management designation impact existing and potential future uses? Please outline the potential positive and negative impacts to current and future users as well as the degree of

impact. How does the proposed site management balance the conservation of rocky habitat resources with human use?

The popularity of Cape Lookout is rapidly growing based on visitor numbers. Most park visitors are attracted to the core area of the park that includes the campground and day-use area. The hiking trail along the top of the cape also is growing in popularity.

The rocky habitat at the base of the cliffs and the intertidal boulder tidepools at the southern shoulder of the cape currently experience relatively low use attributable to access limitations. Several local users commented that the uncrowded and near-wilderness characteristics of the rocky habitat at Cape Lookout are primary reasons they enjoy recreating at Cape Lookout. These individuals represent a diversity of interests (SCUBA, fishing, surfing, hiking). The Boy Scouts of America noted that a unique positive quality of Camp Meriweather is its isolated location, which provides a safe and special experience for campers. A designation may increase public awareness of rocky habitat resources at Cape Lookout. Signage should provide education but not encourage additional users for safety reasons around cliffs on both sides of the cape and to maintain the near wilderness character of the intertidal area on the southern shoulder of the cape.

Existing water-based activities will be unaffected by the designation. No change in commercial or recreational fish harvest regulations is recommended. Harvest of most commonly targeted shellfish and other invertebrates remains open. Closure of harvest for other uncommonly sought invertebrates primarily affects souvenir collection and the aquarium trade.

The management recommendations emphasize education for watercraft and drone operators over enforcing restrictions in order to avoid disturbing nesting seabirds or pinnipeds at haulouts. Educating users on how to responsibly interact with rocky habitat and wildlife should reduce the incidence of disturbances to wildlife while not restricting use and enjoyment.

This designation is not expected to attract significantly more boaters to the area. Charter and private boats seeking ground fishing opportunities generally head out of Garibaldi harbor to the north towards submerged reefs that are closer to the harbor. Should catch rates decline at those reefs more boats may elect to make the longer trip south to Cape Lookout. That potential change, however, would not be a consequence of this designation.

Measures in the proposal to protect intertidal and subtidal habitat within the plan area are expected to maintain or increase fish production and biodiversity. These measures include ecosystem-based management, protecting kelp forests, and adaptive management based on site monitoring results. Increased fish production could potentially benefit future catch rates and fishing quality. Personal stewardship, education, and community engagement yields a higher level of protection while enriching the experiences of those involved.

Management of harvest rights, access, or other Tribal Nation agreements with the state cannot be altered through the Rocky Habitat designation proposal process. Federally recognized Tribal Nations may have, or obtain, consent decrees or other intergovernmental agreements, which outline separate rights or harvest regulations.

Key Natural Resources

To the best of your knowledge, please provide the following information on your proposed rocky habitat site.

Rocky Habitat Present

Please include as much information as possible on the specific types and composition of rocky habitat present at the site (e.g. rocky intertidal with extensive tidepools, adjacent rocky cliffs, and rocky subtidal).

Basaltic cliffs with a few small wave-cut benches comprise the rocky intertidal habitat on the north side and tip of the cape. There are some small coves containing intertidal platform areas. Most of these coves and cliffs are either inaccessible or very dangerous to access. There is a large intertidal area at the southeast shoulder of the cape with boulders and shallow tidepools. This boulder intertidal area has a high biodiversity of invertebrates (Fox, Dave et al. 1994). Dense laminaria growth occurs along the lower fringes of this boulder dominated intertidal habitat.

Shallow subtidal areas occur around offshore rocks and islands as well as portions of rocky cliffs submerged below the extreme low tide contour to a depth of 5 m. A subtidal submerged rock substrate reef parallels the southern shore of the reef. This subtidal reef extends westward from the tip of the cape for about another mile, which is not part of the proposed site. Bull kelp (*Nereocystis luetkeana*) forms canopied kelp beds for 33 acres within the plan area; growing on subtidal rock substrates (SeaSketch). Rock substrate occurs in about 25% of the plan area as calculated by Seasketch (CMES 2019).

Detailed survey data of macroalgae specifically for Cape Lookout were not discovered during a review of relevant published and unpublished reports. A generalized description of macroalgae distribution is provided in Juday (1975). The intertidal and shallow subtidal areas have algal communities dominated by a progression of Macroalgae varying with depth. Eelgrass (*Zostera spp*) beds give way to *Fucus*, *Allaria*, *Ulva* (sea lettuce), and *Postelsia* (sea palm), *Laminaria*, and *Iridaea*. Bull kelp (*Nereocystis luetkeana*) grows in subtidal areas along the south side of the cape.

There are 33 offshore islands or rocks separated from the mainland at mean tide. These islands account for two acres of the plan area. The maximum depth for the plan area is 22 m.

Key Resources

Describe current rocky habitat resources present at the site. These may include, but are not limited to: kelp beds; pinniped haulout or pupping areas; seabird colonies; presence of threatened/endangered/protected species; intertidal diversity (invertebrates, marine plants, etc.).

As mentioned above, there is a large intertidal area at the southeast shoulder of the cape with boulders and shallow tidepools. This boulder intertidal area has a high biodiversity of invertebrates (Fox, Dave et al, 1994) and offers opportunities for tidepool exploration. Sections of the boulder habitat nearest the sandy beach are subject to episodic scour and burial by sand and have a lower diversity. The plan area includes 33 acres of kelp forest, which accounts for approximately 0.44% of the total kelp beds in Oregon's Territorial Sea. Only anecdotal information on the biodiversity within these kelp beds could be found. Comments from a participant at one of the public webinars for sharing information about rocky



habitats at Cape Lookout noted that there is a high diversity and abundance of fish within these kelp beds with many larger sized fish. Other comments on the conditions of these kelp beds are that there has been an exponential expansion of the number of purple sea urchins with evidence of reductions in kelp density.

Waves are constantly eroding the cape's rocky faces. When the lower part of the sea cliff is undermined by the waves, the upper portion loses its support and breaks off. During this process, coves sometimes develop where the rock is weak. The retreat of the sea cliff forms a wave-cut bench. The tip of Cape Lookout has both a sea cave and a wave-cut bench.

Haulouts for pinnipeds include the wave-cut bench at the tip of the cape as well as several pocket rocky coves on the north side of the cape that provide haulouts and pupping areas.

Cape Lookout provides nesting habitat for several seabird species. Seabirds nest on both the south and north cliff faces of the cape. The south cliff face supports the largest nesting colony with more than 8,800 birds representing eight species (USFWS 1988). The Common Murre is the primary species at this site; other abundant nesting species include Double Crested Cormorant and Pigeon Guillemot. The Oregon Ocean Plan lists the south cliff face as an especially sensitive bird and mammal habitat (Oregon Ocean Resources Management Task Force 1991). The west and north cliff faces provide nesting habitat for Common Murre, Western gull, Brandt's Cormorant, Pigeon Guillemot, and Tufted Puffin (USFWS 1988). Offshore rocks just north of the cape also support nesting colonies.

The Black Oystercatcher (*Haematopus bachmani*) is a unique shorebird species that is a conspicuous and charismatic bird of the coast. Because of their small global population size, low reproductive rate, and reliance on rocky intertidal habitats, they are considered a "species of high conservation concern" (<https://www.oregonconservationstrategy.org/strategy-species/black-oystercatcher/>) and act as an indicator of intertidal ecosystem health.

The following federal and state listed Threatened (T), Endangered (E) species are known or likely to occur within the proposed plan area. Some of these species are resident at this site while other species may only be transient or occasional. A listing of Nearshore Strategy species including Species of Concern is provided in Attachment 02: CL Species Data.

FT=Federal Threatened, *FE*=Federal Endangered, *ST*=State Threatened *SE*= State Endangered, *Se*= State sensitive, *SOC*= Species of Concern

Birds

California Brown Pelican (*Pelecanus occidentalis californicus*) SE
Marbled Murrelet (*Brachyramphus marmoratus*) FT ST
Western Snowy (coastal) Plover (*Charadrius alexandrinus nivosus*) CH FT

Mammals

Gray Whale (*Eschrichtius robustus*) SE
Orca Whale (*Orcinus orca*) FE southern resident DPS
Blue Whale (*Balaenoptera musculus*) mostly pelagic FE
Humpback Whale (*Megaptera novaeangliae*) FT

Fish



Green Sturgeon (*Acipenser medirostris*) FT not observed
Coho Salmon (*Oncorhynchus kisutch*) FT
Eulachon (*Thaleichthys pacificus*) southern distinct population FT S Se

Flora and Fauna

List the animal and plant species you know exist at this site along with relative abundance.

An extensive review of published and unpublished literature found very limited data on species survey data specific to the proposal area with the exception of seabird data. Abundance data for fish, invertebrates, and macroalgae both within the proposal area and from nearby similar habitat was even more limited. In addition to literature reviews, scientists familiar with Cape Lookout were consulted. ODFW staff and current and former USFWS staff were contacted to get biological data on species presence, abundance, and biodiversity. Research scientists at PISCO were also consulted. The staff scientist at Portland Audubon was consulted regarding community science programs and provided data from the Oregon Black Oystercatcher Project. Juday (1975) and Fox, et al (1994) provided some information on invertebrate species diversity for the proposal area.

Compilation of the species list (Attachment 02: CL Species Data) considered species that are ubiquitous and common to intertidal and subtidal marine rocky habitat with an attempt to consider the likelihood of occurrence in waters less than 20 m deep. Species known to occur in nearby similar habitats were assumed to occur within the proposal area unless there were specific documentation to indicate otherwise. Data from nearby sites include invertebrate data from Boiler Bay located approximately 50 miles south (reported in Juday 1975; data were collected in the 1970's by students from Linfield College). Biological survey data collected by ODFW in 1994 for the Otter Rock area (53 mile distance) was reviewed (Goddard 1997). Additional species data from the Otter Rock Marine Garden listed in iNaturalist was incorporated into the list. Researching potential species also included a review of MARINE databases, which were used to estimate abundances of invertebrate species at adjacent sites. These data were collected by the Multi-Agency Rocky Intertidal Network (MARINE): a long-term ecological consortium funded and supported by many groups. Please visit pacificrockyintertidal.org for a complete list of the MARINE partners responsible for monitoring and funding these data collections. Data management has been primarily supported by BOEM (Bureau of Ocean Energy Management), NPS (National Parks Service), The David & Lucile Packard Foundation, and the United States Navy.

Sources for species lists and abundance for seabirds included the Catalog of Oregon Seabird Colonies (Naughton et. al 2007). Bird species occurring at Cape Lookout are listed in Attachment 02: CL Species Data. eBird provided additional information on bird species observed or assumed to occur at the cape.

The web database iNaturalist was used to determine the presence or absence of species. Those species having a reasonable probability of occurring at a proposed site based on observations near or even regionally at similar habitat are listed as occurring at the proposed site and recorded as "not observed" at the site but highly probable (to be present). If relative abundance data were not available or could not be estimated or derived for certain taxa, then species presence-absence data only was recorded.

The comprehensive list of species known or assumed to occur within the proposal area was compared to species listed in the Nearshore Strategy. The Strategy species are nearshore species that were identified by the Nearshore Team to be in greatest need of management attention. Identification as a strategy species does not necessarily mean the species is in trouble. Rather, those identified as a strategy species have some significant nearshore management/conservation issue connected to that species that is of

interest to managers. A table of these Strategy species and their status is included in Attachment 02: CL Species Data.

Unique Features

Does this site include any unique or special features in relation to the Oregon Coast? This may include high quality examples of rocky habitats, etc.

Cape Lookout is one of the most beloved headlands on the Oregon coast, boasting beautiful trails through ancient old growth Sitka Spruce, and breathtaking sheer cliffs that drop 400 feet down to the sea. An ancient lava flow stretched from a volcano in eastern Oregon and poured into the sea exactly here creating a long, thin strip of land that juts out a mile-and-a-half into the Pacific Ocean. Cape Lookout was designated as an Oregon Natural Heritage Area in 1975. Reasons for its preservation include it being an undisturbed standard against which to monitor environmental quality, and an area from which to accumulate baseline data on coastal headland terrestrial, marine, and aquatic ecosystems.

The dramatic 400-foot high cliffs that include columnar basalt formations provide a dramatic vista when looking down from the top at gray whales spouting, breaching, and tail-slapping on their annual migrations north and south, as they glide around the point. The cliffs are also an astounding visual focus when boating near the cape or walking along the beaches north and south of the cape.

The uplands being a state park with relatively intact terrestrial forest and cliff ecosystems provide a unique opportunity for ecosystem-based management of both the uplands and rocky habitats as a complete headland ecosystem.

A submerged subtidal reef parallels much of the south side of the cape. Large canopied bull kelp beds account for approximately 0.44% of the total kelp beds in Oregon's Territorial Sea.

A large sea cave at the western tip of the cape is a unique feature. There is an adjacent wave-cut bench that is used by pinnipeds as a haulout.

Gray whales feed within and adjacent to the kelp forests at Cape Lookout. It is likely other whale species also utilize the area. It is mapped in SeaSketch as a biologically important area for cetaceans.

Seabird colonies - Common Murres, Black Oystercatchers, Brandt's Cormorants, Pigeon Guillemots and the ubiquitous Western gulls - flock to where the ocean and the land meet at the base of the cliffs. Cape Lookout is home to the largest colony of Common Murre. The close proximity of a camp with outdoor education programming offers a unique opportunity for school children to experience rocky habitats, explore tidepools, and learn about the ecological intricacies of these habitats in a natural and isolated environment. The Oregon Natural Heritage Plan (2015) notes the intertidal exposed boulder fields on the southern shoulder of the cape as a high quality representation of this type of habitat.

While the Cape Lookout State Park campground and day use area, as well as the headland trail atop the cape, experience heavy seasonal visitor use, a unique feature of the rocky habitat along the base of the cape is its uncrowded and near-wilderness character. Surfers, SCUBA divers, fishers, and research scientists seek out the high quality and relatively undisturbed rocky habitats and surrounding waters of this area.

Values and Resources

Please discuss site values and resources and how a change in designation will impact them.

Education: A Marine Conservation Area (MCA) designation has high value for the educational opportunities it would provide. Existing resources include Cape Lookout State Park and ongoing environmental education programs at Camp Meriweather. ASLC resources include a well-developed education network and experience working with local schools and active social media content on rocky habitat (<https://www.facebook.com/groups/myfavoriterockyhabitat>). Recommended educational resource improvements include signage at the north day use area and the south parking lot trailhead at Cape Lookout (pending park concurrence), educational materials to inform boaters and drone operators on appropriate distances to avoid disturbing wildlife, educational curriculum on rocky habitat and ecology at the park, and experiential learning programs at Camp Meriweather.

Community Engagement is evidenced by county residents expressing support of this proposal and expressing interest in participating in its implementation. A biennial “State of the Cape” community meeting will be an excellent resource to inform adaptive management decisions.

Natural open space is identified in the Statewide Comprehensive Outdoor Recreation Plan (SCORP) as a high value for Oregon residents. Cape Lookout provides a natural setting to explore as well as expansive views. The rocky habitats give a sense of wilderness with the raw natural beauty of soaring cliffs and offshore islands designated as wilderness areas.

Ecological value of rocky habitat at Cape Lookout is supported by natural resources including a productive mix of invertebrates, fish, and algae in intertidal habitats, canopied kelp forests within subtidal habitats as well as seabirds utilizing the cliff habitat for nesting. An MCA designation is an excellent resource to provide ecological connectivity between subtidal, intertidal, and upland marine headland ecosystems.

Recreation value benefits from resources including exceptional views, trails to explore, a camp offering outdoor experiential learning opportunities, as well as camping and other recreational activities at Cape Lookout State Park. Recreation resources include fishing (individual and charter) along subtidal rocky habitats. SCUBA opportunities are available along the reefs on the south and west sides of the cape. Sea kayak fishing is emerging as another recreation resource. Bird and whale watching are popular activities.

Aesthetic value of the Cape Lookout is self-evident with the astounding viewsheds, magnificent cliffs, and opportunities to commune with nature. The state’s first park superintendent, Samuel Boardman, described Cape Lookout as one of Oregon’s crown jewels.

Economic value of rocky habitat at Cape Lookout benefits from the natural beauty of this dramatic coastline. People from all over the world travel here to enjoy our beautiful coastline. In 2018, travel supported 2,200 jobs in Tillamook County (Dean Runyan Assoc., 2019). Visitor spending in Tillamook County for 2018 was 236 million dollars.

Cultural value of this area includes its importance as a resource for members of local Tribal Nations. “Tribal members are very dependent on the health of coastal ecosystems for food, culture, and recreation and are invested stakeholders in the future management of their harvest areas.” (“Informing

Oregon's Marine Protected Area MPA Baseline: Past and Present Tribal Uses of Marine Resources," p. 46)

Regulations & Enforcement

To the best of your knowledge, please provide the following information on your proposed rocky habitat site. Due to the complexity of site regulation and enforcement, this section will not be used to evaluate proposal completeness, but will be considered for the merit of this proposal. Agencies will address gaps where information is available.

Management Consideration

How was enforcement/compliance of management considered in the design of this site proposal? If possible, please estimate the cost to implement this change in site management.

The proposal recognizes there are limited funds for enforcement/compliance and current capabilities are not likely to be greatly expanded as a result of this proposal. Therefore, the proposal emphasizes education as a means to reduce enforcement needs and achieve greater compliance. The proposal also emphasizes active stewardship. Volunteers can encourage compliance and report observed enforcement concerns. Stewardship is considered a value-added opportunity for enforcement compliance with minimal cost.

The proposal calls for no site-specific changes to coastwide fish harvest regulations. Commonly harvested invertebrate species will be managed according to coastwide harvest regulations. Minimal to no additional enforcement efforts are required by this proposal to regulate commercial or recreational harvests.

Educational and informational materials provided to boaters, drone operators, and other recreationists are expected to reduce human induced disturbances to nesting seabirds and wildlife. This, in turn, will reduce enforcement needs.

The need for a memorandum of understanding between state park enforcement and volunteer stewards will be evaluated upon designation of the marine conservation area.

Enforcement Changes

In comparison to current site management, what changes would be necessary to enforce the proposed management measures? This may include the addition or removal of infrastructure, personnel, etc. Include the estimated financial impact of the proposal. Some designations incorporate larger financial or programmatic support. Please identify any entities or funding sources that may be available to continually support this proposal. This information is not required for a proposal to be accepted, but review bodies would like to be informed of any support that is already in place or expected for the site.

The proposal emphasizes education, stewardship, and community engagement. Therefore, changes necessary to enforce the proposed management are minimal. Some changes are to garner greater support to implement current site management.

The establishment of a trained and active stewardship program will extend the capabilities of enforcement to be aware and observe any law enforcement concerns related to management measures

in this proposal. Establishing Memorandums of Understanding between stewardship programs and the state park and any other appropriate law enforcement agencies will enhance the understanding and capabilities of volunteer stewards to interact safely with the public and work efficiently with law enforcement staff. Since changes in harvest and other regulatory management measures resulting from this plan are minimal, it is anticipated that the stewards will work more in the capacity of education than compliance, informing visitors how to appropriately interact with rocky habitat and the species dependent on these habitats.

Management changes will build upon already established programs, which will expedite implementation and reduce start-up costs. CoastWatch provides a well-established and successful program for recruiting, training, and managing data collected by volunteer coastal stewards. The stewardship program for this proposal will seek the cooperation of CoastWatch, to the extent funding is available, to recruit and train volunteer stewards.

It is beyond the scope of most community groups to accurately assess the financial impact for a proposal of this extent. There are both direct costs as well as indirect financial effects within the community. While difficult to quantify, these indirect financial effects are likely a net gain with value added tourism experiences and reduced need for enforcement through education.

ASLC and other interested community groups will work collaboratively with the authorizing agencies to secure additional programmatic funding and/or reallocation of resources to support the holistic management framework that this proposal embodies. Many of the management recommendations can be integrated into the current management responsibilities of the various agencies.

Needed Regulations

What regulations and enforcement would be necessary to implement this change in management? What regulatory changes at the proposed site would be needed at this site? Which state/federal agencies would be impacted by this change in site management?

Management recommendations within this proposal are described in an earlier section on goals and objectives. A discussion of regulations and enforcement necessary to implement these management recommendations as a Marine Conservation Area are discussed below. The applicable numbered management recommendation is noted in parentheses (example R1= Management recommendation 1) listed earlier in the goals section. (Please see the response to Goals.)

Few changes in regulations and enforcement are necessary to implement the management recommendations in this designation. The proposal emphasizes education and stewardship as effective ways to support enforcement (R1, R2, R3, R10, R11, R12). A memorandum of understanding between groups managing the volunteer stewardship program (R3) and OPRD or other appropriate law enforcement agencies may be advisable. There are no recommended changes to coastwide commercial and recreational fish harvest regulations (R13, R14). A site-specific regulatory change would be required by ODFW to reflect limitations on invertebrate species available for harvest (R15). Similar regulatory restrictions on exceptions to invertebrate no-take exist for Boiler Bay, Shell Cove, and Neptune State Park (OAR 635-39, F3). Restrictions on the collection of souvenir invertebrate species may already be covered under ORS 736-021-0090(4). ODFW and OPRD have managing authority.

The proposal would close the harvest of kelp (R16). Regulatory changes affecting the Department of

State Lands (DSL) which regulates the harvest of kelp would need to be revised to close kelp harvest for personal use. Currently, a lease is required only if the harvest is more than 2,000 lbs of wet kelp/yr (ORS 274.885 and ORS 274.895).

Improvements to Management

How does the proposed site improve upon or fill gaps in addressing objectives/policies that are not currently addressed by coastwide regulations or management?

This designation will provide a platform for ecosystem-based management at both site-specific and regional scales. The designation provides a unified goal, objectives, and management recommendations that are site-specific to guide agencies to work collaboratively among themselves as well as with the local community to attain these goals.

Management recommendations within this plan can be integrated into the Cape Lookout Comprehensive Plan. The Comprehensive Plan for the park serves as the guiding document for future recreational uses and development and protection and management of park resources at Cape Lookout State Park. The State Park serves as the gateway for the majority of users to access rocky habitat at Cape Lookout. The success and true value of a Marine Conservation Area at Cape Lookout is dependent upon and benefits from integration with the natural resources and recreation opportunities available within the State Park. In addition to the State Park, OPRD owns and has statutory authority for the intertidal habitat. Coordination among all the agencies with managing authority for rocky habitat within the plan area is vital. It is acknowledged that the rocky habitat plan area is not entirely within the boundaries of Cape Lookout State Park, which may affect the extent management of rocky habitat can be incorporated into the Comprehensive Plan.

The single most important factor for the success of marine protected areas throughout the world has been demonstrated to be community engagements (PISCO 2016). The “support of all stakeholders’ awareness of the marine environment” has been cited as the most important factor for successful implementation of marine designations (Kusumawati, I and H. Hsiang-Wen. 2015: Key factors for successful management of marine protected areas: a comparison of stakeholders’ perception of two MPAs in Weh Island, Sabang, Aceh, Indonesia. Marine Policy. 51. 465-475. 10.1016/j.marpol.2014.09.029). The management recommendations set out in this proposal considered input from community groups and individuals. Specific measures to engage the local community include: education and awareness, participation in a biennial State of the Cape meeting, fostering personal stewardship, community science projects, and the opportunity for involvement of local outdoor education programs such as Tillamook County Outdoor School.

Agency budget constraints have been repeatedly noted as a limitation to implementing the Rocky Habitat Management Strategy and a concern for any designation. Community involvement in the management of the Cape Lookout MCA adds capacity to agencies responsible for managing the rocky habitat and its resources. The proposal outlines how trained volunteers within the community can work cooperatively with agencies to achieve the goals and objectives of this designation as well as contribute to the understanding and management of rocky habitat resources for the entire Oregon coast.

This MCA builds climate resilience and climate change adaptation into decision-making to maximize the long-term benefits of today’s public investment in natural resource management. Agency efforts will be complemented with community science monitoring for climate change effects including ocean

acidification and hypoxia.

The designation creates an opportunity and mechanisms to more holistically manage kelp beds and the multitude of species dependent on them. Kelp forests mitigate climate change impacts through carbon sequestration, support fisheries, protect shorelines, and are one of the most diverse and productive ecosystems on earth. Bull kelp is recognized as a Strategy species in the Oregon Nearshore Conservation Strategy (ODFW 2016). Beginning In 2013, a region wide outbreak of sea star wasting disease coincided with a substantial warming of Oregon coastal waters. Sea stars are a predator for the voracious herbivore purple sea urchins. An explosion of purple sea urchin populations coinciding with warmer sea water, hypoxia, and ocean acidification resulted in dramatic losses of kelp forests along the northern California coast and extending into Oregon. Once highly productive kelp beds were transformed into low productivity sea urchin barrens. Monitoring, research, and a holistic management approach are necessary to better understand both short and long-term trends in kelp forest ecology and the threats to the continued ecosystems services provided by kelp forests. Comments during a community webinar as part of the stakeholder engagement for this proposal noted an exponential increase in abundance of purple sea urchins and notable declines in kelp abundance at Cape Lookout. The extirpation of sea otters from the Oregon coast is another factor contributing to the ecological imbalance and decline in kelp beds (Steneck, R. et al, 2002). This designation will focus attention on the importance of holistically managing kelp beds as a key resource.

The development of site-specific and regional monitoring and response tools for containing invasive species within intertidal and subtidal habitats provides a management improvement. Addressing invasive species at multiple geographic scales is a central principle of ecosystem-based management. A recommendation within this proposal promotes the incorporation of invasive species management into the Rocky habitat Management Strategy.

Non-Regulatory Management Mechanisms

To the best of your knowledge, please provide the following information on your proposed rocky habitat site.

Management Mechanisms

What non-regulatory mechanisms are required at this site in order to meet the goals of the proposed designation? These may include, but are not limited to, public access management, on-site enhancement, and educational intercepts.

Non-regulatory management mechanisms including specific actions are detailed in the management recommendations listed earlier in this proposal under the goals section. Mechanisms are summarized below with reference to the applicable numbered management recommendation. (example R1= Management recommendation 1: Please see the response to Proposal Rationale and Goals). These non-regulatory management mechanisms better protect natural resources and contribute to an expanded enjoyment by well-informed site users.

Educational management recommendations of this proposal (R1, R2, R3, R10, R11, R12) are aimed at informing the public on how to interact responsibly with rocky habitats and the species dependent upon them. Education also enriches the experience of users and has been documented as a need (Bergerson 2019). Educational mechanisms include:

- coordination with existing environmental education and interpretive programs based out of Camp Meriweather as well as the state park
- use of social media such as the ASLC facebook page
- installation of interpretive signage
- informing boaters and drone operators how to avoid disturbing wildlife.
- tidepool walks and birding events.

Community support and engagement has been documented as a key factor in the success of many marine area designations. Management recommendations call for personal stewardship (R3), community science (R5, R6, R10), collaboration between agencies and the community (R5, R6, R8, R9). Community engagement mechanisms include:

- stewardship program
- working with local educators
- community science to address climate change impacts
- biennial State of the Cape meeting
- participating in adaptive management
- community collaboration with agencies and Tribal Nations
- overlap with education mechanisms

Monitoring and research: Protection of rocky habitats within the designation site can be implemented through non-regulatory educational mechanisms as well as increasing our collective understanding of the ecological complexities, internal and external factors affecting intertidal and subtidal ecosystems as well as seabird colonies. Non-regulatory protection can be implemented through monitoring (R3, R4, R7, R10), addressing climate change (R5, R6), research to fill information gaps (R6, R9), and education (R3, R4, R12, R13). Monitoring and research mechanisms for this proposal include:

- monitoring of site conditions by stewards
- feasibility assessment to implement a monitoring program to better understand trends in biodiversity and habitat integrity (short term: community science and long-term dependent on future funding options)
- researching and monitoring climate change impacts to fill local and regional information gaps
- developing monitoring protocols to detect and respond to invasive species
- annual USFWS nesting seabird surveys

Support for Management Mechanisms

How do you propose to support these mechanisms? Some designations incorporate larger financial or programmatic support. Please identify any entities or funding sources that may be available to continually support this proposal. This information is not required for a proposal to be accepted, but review bodies would like to be informed of any support that is already in place or expected for the site.

ASLC and other interested community groups will work collaboratively with and advocate for the authorizing agencies to secure additional programmatic funding and/or reallocation of resources to support the holistic management framework that this proposal embodies. Many of the management recommendations can be integrated into the current management responsibilities of the various agencies.

ASLC is committed to ongoing participation in the implementation of this plan. Examples of non-monetary support provided by ASLC include educational programs, hosting a biennial State of the Cape



meeting, and participation in stewardship programs. ASLC, in cooperation with other stakeholders, may also seek third party grants to implement this proposal. A funding strategy will be developed upon designation of the Cape Lookout as a Marine Conservation Area in the Rocky Habitat Management Strategy.

The Oregon Ocean Conservation Fund is a subset of the larger Oregon Community Foundation (OCF) combining funds from its Packard, Lazar, and Harder foundation sources. The Conservation Fund makes \$100,000 - \$120,000 available annually to coastal conservation projects. The Oregon Ocean Conservation Fund facilitates the engagement of coastal residents, communities, and businesses in helping to protect the health of Oregon's ocean. Through the fund, donors can leverage their resources, learn in partnership, and benefit from shared professional support.

Another source of funding that could be applied to aspects of the non-regulatory management recommendations is the Oregon Conservation and Recreation fund: <https://www.dfw.state.or.us/conservationstrategy/OCRF/>. The funds key objectives include education for responsible recreation and community science.

The educational recommendations in this proposal build upon existing well-established educational programs based out of Camp Meriweather. While no commitment from the camp or those organizations using it is part of this proposal, parties have expressed interest in working together to identify how management recommendations within this proposal can be synergistic with their programs.

ASLC will work cooperatively with CoastWatch, Friends of Netarts Bay WEBS, and other interested stakeholders to implement a stewardship program for the area. CoastWatch is a well-established coastwide program that recruits, trains, and coordinates volunteers to be coastal stewards assigned to a specific mile of the Oregon coastline. While CoastWatch has expressed interest in helping establish coastwide stewardship programs for rocky habitat designations, they cannot commit until approved designations are adopted into the Strategy by rulemaking and funding opportunities can be reviewed. Volunteer stewards will provide interpretation, education on appropriate interaction with rocky habitat and wildlife, enforcement observations, monitoring, and public interaction. Seasonal stewardship opportunities through Camp Meriweather will also be evaluated. Based on discussions with several groups who are proposing designations for other rocky habitat sites coastwide, an "umbrella" Oregon-coastwide stewardship program may be most efficient to provide training, communications, and other needs of multiple local site-based stewardship programs coastwide.

Stakeholder Engagement

To the best of your knowledge, please provide the following information on your proposed rocky habitat site.

Letters of Support

Before submitting your proposal, please attach any materials or letters of support gathered as part of the development of this proposal. You may include meeting resources, campaign materials, etc.

https://seasketch-uploads.s3-us-west-2.amazonaws.com/cc8b3fc1-8a32-47c5-bb0a-24ed6388f06d/03_CL_Proposal_Support_Letters.pdf



Stakeholder Collaboration

Describe the steps taken to develop this proposal in collaboration with stakeholders. a) Please describe the community support and opposition for this proposal. b) Please list the communities, organizations, and groups that have worked to develop and support this proposal, as well as those in opposition of the proposal.

We, the Audubon Society of Lincoln City (ASLC), began in 2019 to work on a campaign to seek designations for key sites in Lincoln and Tillamook counties, the areas we serve. Over the past 18 months our core team of volunteers and 1 part-time staff engaged in listening, awareness building, and collaboration on this proposal across Lincoln and Tillamook counties.

In order to effectively reach a broad spectrum of stakeholders, we generated a list of categories of potentially interested groups: Aquaculture, Arts, Charter Boat, Community Center, Education, Environmental, Faith Based, Fishing Commercial, Fishing Recreational, Food Services, Local Government, Lodging, Neighborhood Associations, Non-government Organization (NGO), Sports & Outdoors, Tourism, Tribal nations, Visitor Services, Watershed Council, and Youth groups. We attempted to contact at least two representatives of each of the above categories of stakeholders.

Effective stakeholder outreach and public awareness was achieved through the following activities:

- One-on-one conversations, virtually or safely in-person
- Community webinars to inform the public
- Community webinars to discuss the proposal. For example: on December 9, we held a public information session focusing on Cape Lookout as a Marine Conservation Area, advertising the webinar via news articles (Tillamook County Pioneer paper and online editions), our mailing list, website, and our Facebook pages.
- Published and distributed print materials to build awareness of the Strategy, the process, and this specific proposal
- Led tours of the proposed site area
- Consistently updated information on our My Favorite Rocky Habitat Facebook group, <https://www.facebook.com/groups/myfavoriterockyhabitat>), and our website <http://www.lincolncityaudubon.org>.
- Published columns in local media outlets inviting feedback
- Presented directly to elected leaders in Lincoln and Tillamook counties as part of open public comment in decision-making venues

In spite of Covid-19 safety restrictions and severe local wildfires, we have been able to effectively engage stakeholders in both counties; however, these restrictions did hinder our ability to reach certain groups such as the fishing community (e.g., unable to “hang out at the docks”).

Feedback from Stakeholders

List and explain both positive and negative opinions received regarding this proposal. While preparing this proposal and conducting stakeholder outreach, describe the main comments of support and issues of concerns voiced regarding this proposed change in site management/designation.

Supporting comments include:



Local resident: "It is really up to us, as concerned citizens and community members, to protect what we value. By designating Cape Lookout's rocky habitat and offshore marine resources as a Marine Conservation Area, we can protect migratory and nesting seabirds on both north and south facing cliffs; we can protect seal haulouts during critical reproductive seasons; we can educate visitors on how best to enjoy our natural resources safely and responsibly; and we can educate recreational users about the need to avoid disruption and nest failure of our seabirds colonies."

Local resident: "I just want to say I'm very grateful for the efforts on this proposal and you have my 100% support... I am also supportive of continuing to allow recreation, and investment in education on the unique habitats."

St. James Santiago School: "Thank you for giving community groups like Lincoln City Audubon the opportunity to help conserve more of Oregon's coastal habitat. Our students, staff, and the larger community will all benefit as a result-for years and years to come."

St. James Santiago Episcopal Church: "We are all called to be stewards of God's creation. Thank you for taking these small, but needed, steps to protect this fragile earth, our island home."

Portland Audubon: "Portland Audubon, representing over 15,000 members across Oregon, strongly supports the efforts of the Audubon Society of Lincoln City (ASLC) in their work to protect vital rocky habitats in Lincoln and Tillamook Counties."

Oregon Audubon Council (signed by 10 Oregon Audubon chapters): "Marine Conservation Area designation for Cape Lookout would provide much needed protections for the seabirds, mammals, and invertebrates that live and reproduce at Cape Lookout."

Oregon Chapter of the Sierra Club: "The Oregon Chapter of the Sierra Club enthusiastically endorses Audubon Society of Lincoln City's efforts to seek a Marine Conservation Area designation for the rocky habitats of Cape Lookout in Tillamook County and Cape Foulweather in Lincoln County."

The Confederated Tribes of Grand Ronde Natural Resources Manager: "...we support the proposals the Audubon Society of Lincoln City is preparing to submit to designate Cape Foulweather and Cape Lookout as Marine Conservation Areas within Oregon's Rocky Habitat Management Strategy."

Salmon Drift Creek Watershed Council: "SDCWC strongly supports Audubon Society of Lincoln City's proposal to create Marine Conservation Areas at Cape Lookout and Cape Foulweather to protect Rocky Habitat...This is a small step in the right direction to protect wildlife habitat of nesting seabirds on these cliffs."

Cascade Head Biosphere Reserve: "Cape Foulweather to the south of the Cascade Head Biosphere and Cape Lookout to the north would serve as excellent choices for Marine Conservation Areas within Oregon's Rocky Habitat Management Strategy and serve to amplify existing protections." And: "...the management recommendations within your proposals foster community engagement in ecosystem based management through stewardship and education."

Questions or concerns:

QUESTION (Access): "Would divers be able to harvest legal species inside the 200m boundary including



securing a boat or kayaks?" [local fisherman and diver]

RESPONSE: Yes, access via boat, kayak, and diving will not be affected by the MCA designation. The proposal has no restrictions on diving.

CONCERN (Access): A key quality of the camp is that it is geographically isolated. Keeping kids safe is a top priority. The south beach trail is partially on the Boy Scouts property. There have been some conflicts re its use. Beer parties and inappropriate language around children is an undesirable outcome from the trail access. There have also been trespassing instances.

RESPONSE: The proposal recognizes that the uncrowded and relatively isolated characteristics of the south side of Cape Lookout are desirable conditions for the camp and other users seeking a near-wilderness experience. The importance of safety is also noted in the proposal objectives.

CONCERN (Access): The camp is concerned that improvements to the South Beach trail would increase accessibility.

RESPONSE: Improvements to this trail are not part of this proposal.

CONCERN (Education): An annual training of camp staff on tidepool etiquette and seabird ecology would be very helpful.

RESPONSE: The proposed education and stewardship actions described in this proposal will provide this.

CONCERN (Education): Any additional signage needs to be unobtrusive and fit in with a natural landscape

RESPONSE: Recommendations for signage incorporate this request.

QUESTION (Fishing): Is this the beginning of regulations that will get more and more restrictive?

RESPONSE: The designation establishes a set of management recommendations that include keeping coastwide fishing regulations without any additional site-specific regulation. There is no intention of changing them to be more restrictive. The designation is designed to ensure access now and in the future for use and enjoyment while balancing the protection of resources. A rocky habitat designation is different from a marine reserve, which excludes harvest.

CONCERN (Fishing): Recreation harvest of gooseneck barnacles falls under ODFW's regulation of a daily limit of ten unspecified invertebrates. Nearly all (99%) gooseneck barnacles at Cape Lookout grow in inaccessible areas with hazardous waves. Recreational harvest would have minimal impact. I would like to see harvesting gooseneck barnacles be allowed.

RESPONSE: The management recommendation allows for harvest of commonly sought shellfish and other invertebrates under coastwide regulations. Gooseneck barnacles are not listed in the recommendation so harvest of them would be closed. The recommendation does; however, contain a clause that ODFW, which has the expertise and regulatory authority, may add additional invertebrate species to the list subject to coastwide regulations as they see appropriate.



QUESTION (Management goals): “What are you trying to protect from?” [local fisherman and diver]

RESPONSE: “Protect from” is not really the idea. Protect FOR or Preserve are better terms. Preserving habitat is the goal. The fish and wildlife are key elements of what make this terrain so special. Diving and kayaking without wildlife would be a much less special endeavor.

QUESTION (Management goals): “What does the 200 m plan boundary mean?”

RESPONSE: The plan area boundary is not a regulatory boundary or exclusion zone. The boundaries define an area within which a framework can be put in place of agency coordination on site-specific objectives and community involvement.

CONCERN (Management goals): I'm a freediver and scuba diver, and a volunteer/donor with the Oregon Kelp Alliance. The Cape Lookout kelp forest ecosystem is under extreme threat by the purple sea urchins population explosion. Diver volunteers can help by removing purple urchins, which requires year-round public diver access mostly by boat. Our group is asking ODFW to grant a purple urchin eradication special permit, for any and all divers, for a number of selected reefs, hopefully including Cape Lookout.

RESPONSE: Designation of Cape Lookout as a Marine Conservation area will create a framework to holistically manage rocky habitat resources including the kelp forest. You have provided valuable first-hand information. The management recommendations promote harvesting of purple sea urchins. Community engagement can likely benefit from involvement by the Oregon Kelp Alliance in ecosystem based management and habitat restoration.

Public Outreach

List and describe engagement opportunities where the public has had the opportunity to learn about and/or comment on this proposal (e.g. conferences, meetings, tabling events).

Due to Covid-19 restrictions, most of our in-person events were either canceled or held online via webinars.

In person: We publicized and conducted 3 outings to various Rocky Habitat sites of interest, including Boiler Bay, Cape Foulweather, Devil's Punch Bowl, Yaquina Head, and Cape Lookout. We held two in-person presentations featuring Black Oystercatchers and rocky habitats, one to Lincoln City seniors and the other to Friends of Otter Rock. In February 2020, we tabled at the Willamette Valley Bird Symposium which is sponsored by Oregon State University and held in Corvallis. We provided handouts and discussed plans with dozens of attendees.

Webinars: In June 2020, we conducted a series of 3 webinars, “On the Rocks” with experts Roy Lowe, David Fox, and Michael Moses. In October, we held a campaign overview for the public, and in December, we held an information exchange to discuss Cape Lookout with citizens of Tillamook County (<https://youtu.be/NT43CO2x4xw>).

Press releases and opinion pieces: Our press releases and opinion pieces have been published in print and online media as follows:

- Attachment 04: The News Guard November 2020
- Attachment 05: Newport News-Times November 2020



- Attachment 06: Oregon Coast TODAY November 2020
- Attachment 07: Tillamook County Pioneer November 2020
- Attachment 08: Tillamook County Pioneer December 2020

Mailings: We mailed three issues (Winter 2019, Summer 2020, and Winter 2020) of our newsletter, The Kingfisher, featuring full-color inserts about rocky habitats and our proposal, to 325 local and national members in Lincoln and Tillamook counties.

- Attachment 09: The Kingfisher Winter 2019/20
- Attachment 10: The Kingfisher Summer 2020
- Attachment 11: The Kingfisher Winter 2020/21

Email campaign: We created an email list of interested persons, sending them regular updates and soliciting their input. We also sent monthly email updates to our members.

Web page feature articles: We featured our Rocky Habitat campaign in several features.

- Attachment 12: Protecting Black Oystercatchers 201907
- Attachment 13: Oregon's Rocky Habitat Belongs to You 202001
- Attachment 14: Rocking the Tillamook and Lincoln Coasts 202003
- Attachment 15: Protecting Our Rocky Shores 202011

Campaign website: Our "The Oregon Coast Rocks" campaign landing page (<http://www.lincolncityaudubon.org/rocks.html>) includes links to our handouts, other sites such as OPAC's <https://oregonocean.info> page, and pertinent information such as personal essays, birds of Oregon's coastal habitats, and much more.

Social media: We created a Facebook group, My Favorite Rocky Habitat: Lincoln and Tillamook counties where residents, visitors, and others post their photos and stories about their favorite places. The group has 264 members at this time.

City Councils: We made public comment to the Garibaldi City Council. We also entered public comment into the record for Tillamook County Commissioners. These meetings are broadcast to constituents throughout the area.

Faith-based groups: We made presentations to 2 local churches and obtained letters of support from them.

Flyers used in the above outreach include:

- Attachment 16: Flyer Five Reasons to protect Rocky Habitat
- Attachment 17: Flyer Five Reasons to protect Kelp
- Attachment 18: Flyer The Oregon Coast Rocks
- Attachment 19: Flyer Cape Lookout Rocks
- Attachment 20: Flyer Managing Our Rocky Coast (DLCD-OPAC)

Additional Information

To the best of your knowledge, please provide the following information on your proposed rocky habitat site.



Local Knowledge

How does this proposal incorporate local knowledge?

This proposal draws upon the combined local knowledge internal to ASLC as well as externally within the broader local community. ASLC is a community organization with most of our members being local residents. ASLC members provided local knowledge on site uses and natural resources. ASLC participates in community science at Cape Foulweather Oregon Black Oystercatcher Project. This proposal was initiated, discussed, evaluated, prepared, and written entirely as a local community effort.

The volunteers and limited ASLC staff working on this proposal are all local residents with firsthand knowledge of Cape Lookout as well as becoming well versed in the Rocky Habitat Management Strategy. ASLC members provided local knowledge on site uses and natural resources. One of our core team volunteers lives at Netarts Bay and is a retired commercial fisherman who also contributed historical local knowledge on the prior designation process for establishing marine reserves along the Oregon coast. All stakeholder outreach materials including design, writing, art work and production were done locally by ASLC members, except one handout, *Managing our Rocky Coast*, which was published by OPAC (<https://www.oregonocean.info>) and used heavily in our stakeholder outreach.

Local knowledge was sought and incorporated through discussions during public webinars, email inquiries, meetings, and conversations with local residents. While the unprecedented Covid-19 posed unique communication challenges, information was exchanged through many non-traditional platforms including online meetings and shared thoughts passed along from neighbor to neighbor discussions.

Local knowledge was sought and incorporated in the development of the goal, objectives, and management recommendations. Specific assistance was provided by a retired manager of the USFWS Oregon Coast National Wildlife Refuge Complex and co-author of *Catalog of Oregon Seabird Colonies: Biological Technical Publication BTP-R1009-2007*.

ASLC has considerable internal local knowledge on seabird and other wildlife resources in the designation area.

ASLC presented to the Garibaldi City Council. We also submitted information, online and hard-copy, to the Tillamook County Board of Commissioners.

The Natural Resources Director of the Confederated Tribes of the Grand Ronde provided tribal perspectives. The Natural Resources Director of the Confederated Tribes of the Siletz shared the Tribe's concern how each type of designation could affect Tribal members' shellfish gathering rights.

ASLC met with and incorporated local knowledge from the Boy Scouts of America who own and manage Camp Meriweather. They provided knowledge on their programming, observations on use of rocky habitat, and wildlife observations. They have been operating residential camping programs at Cape Lookout for many years.

We provided OPRD a list of questions related to our proposal to gain input from Cape Lookout State Park staff on their perspectives on uses, concerns, and natural resources related to rocky habitat at Cape Lookout. OPRD circulated questions to park staff, then we met to discuss park staff responses. These

responses were incorporated into management recommendations. OPRD also provided us user information.

Scientific Knowledge

How does this proposal incorporate scientific knowledge?

Information and data searches on habitat conditions and biota include sources such as published science journal articles, ODFW publications, MARINE database and documents, USFWS documents, Oregon Natural Heritage Program database. PISCO publications and SeaSketch metadata sources were also queried. Online publications were researched for information on species, habitat conditions, and factors affecting them relevant to the proposal site. Key scientific sources include: SeaSketch, the 1994 Rocky Shores Inventory, USFWS Catalog of Oregon Seabird Colonies, and the Oregon Natural Areas Preservation Analysis (Juday 1975).

ODFW staff and USFWS staff were contacted to get biological data on species presence, abundance, and biodiversity. Research scientists at PISCO were also consulted. The staff scientist at Portland Audubon was consulted regarding community science programs and provided data from the Oregon Black Oystercatcher Project.

The authors of this proposal include those with a professional scientific background in ecology and natural resource management. The primary author is a retired ecologist and former ODFW scientist. Others assisting on developing the goal, objectives, and management recommendations include the retired Manager of the USFWS Oregon Coast National Wildlife Refuge Complex and co-author of Catalog of Oregon Seabird Colonies: Biological Technical Publication BTP-R1009-2007.

The plan area boundaries are established based on science-based data layers in SeaSketch. Most specifically, data layers on the spatial extents of rocky subtidal substrate (CMES 2019), kelp beds, seabird colonies, and marine mammal haulouts help to define the proposed boundaries.

The objectives and many of the management recommendations draw upon scientific information and management guidance provided in the Oregon Nearshore Strategy. The Nearshore Strategy is part of the Oregon Conservation Strategy, which is an overarching state strategy for conserving fish and wildlife. It provides a shared set of priorities for addressing Oregon's conservation needs. The Conservation Strategy brings together the best available scientific information, and presents a menu of recommended voluntary actions and tools for all Oregonians to define their own conservation role. The Nearshore Strategy was also used as an information source on key natural resources and their conservation status.

One of the lists of flora and fauna provided as an attachment to this proposal was developed by PISCO student scientists. They researched published and gray literature for site-specific information as well as applied a systematic approach to make inferences on species occurrence based on data from other nearby or even regional sites with similar habitat. Additional information was provided by scientists at ODFW and PISCO.

The scientific literature on climate change effects on rocky habitat including sea level rise, ocean acidification, and hypoxia were reviewed for relevance to the proposal site. Environmental Protection Agency sea level rise modeling scenarios and the associated change in intertidal habitat area within the analysis area are reported in SeaSketch.

Goals and Policies

Which goals and policies in the Rocky Habitat Management Strategy does this proposal address, and how?

The goal for designating Cape Lookout as a Marine Conservation Area is to conserve, to the highest degree possible, the ecological functions and rocky habitat resources in order to provide long-term ecological, economic, and social benefits for current and future generations of Oregonians. This goal closely aligns with the Rocky Habitat Management Strategy as well as the goals for the Nearshore Strategy.

The designation provides a platform and guidance for site-specific ecosystem-based management that provides long-term ecological, economical, and social benefits to the natural resources at Cape Lookout and within the county. Community needs and interests have been integrated into the proposal. Community engagement is an essential component of ecosystem-based management and is self-evident in the goal for this designation. The single most important factor for the success of marine protected areas is community engagement [Partnership for Interdisciplinary Studies of Coastal Oceans and University of Nice Sophia Antipolis. 2016. *The Science of Marine Protected Areas* (3rd edition, Mediterranean). www.piscoweb.org. 22 pages]. A key community engagement action identified in this proposal is the commitment of ASLC to host a biennial State of the Cape meeting. This meeting is an ideal platform to foster collaboration of community, agencies, Tribal Nations, and interested organizations in routinely evaluating progress toward achieving the site-specific goals as well as evaluate contributions to meeting the goals of the Rocky Habitat Management Strategy.

Education and stewardship are emphasized in this proposal as means for protecting rocky habitat and biological communities while allowing for use and enjoyment. Signage adds educational value with a greater understanding and appreciation of rocky habitats. Greater protection is afforded through informing boaters and drone operators how to avoid disturbance to nesting seabirds. The proposal recommends coastwide commercial and recreational fish harvest regulations as protective of these resources while continuing to provide access and enjoyment. The plan closes harvest of some invertebrates but maintains coastwide harvest regulations for those species commonly harvested as well as providing adaptive management that can be responsive to evolving harvest opportunities. Kelp is protected from harvest. This marine algae is a primary producer and provides structural habitat for a multitude of species. The proposal is responsive to the need to develop site-specific and coastwide measures to address invasive species concerns.

The proposal enhances appreciation and fosters personal stewardship of rocky habitats through education curricula, signage, and interpretation. The proposal includes a personal stewardship program that engages community members as well as youth participating in outdoor education programs. There are relatively few nearby residences as a source for volunteer stewards. Therefore, stewardship emphasizing participation at one of the many programs operated out of Camp Meriweather has a higher potential for successfully recruiting stewards. This opportunity will help protect the rocky habitats through education. Perhaps even more importantly, it will instill a deeper appreciation of rocky habitat and the fascinating array of species dependent on these habitats. That appreciation will propagate throughout the state as camp participants return home and share their newfound appreciation.

Community science programs are another element of this proposal that foster personal stewardship as well as improving our knowledge and understanding of rocky habitats.

The proposal promotes the use of climate change information in management decision-making for Cape Lookout. Building climate resilience and climate change adaptation into decision-making is recognized in the proposal to maximize the long-term benefits of today's public investment in natural resource management. Management recommendations include developing and implementing research and monitoring efforts to understand, track, and work toward predicting effects of climate change and increased carbon dioxide on Oregon's rocky habitat species and ecosystems.

Watershed Conditions

What land or watershed activities/conditions exist adjacent to this site?

Cape Creek is located in the state park south of the day use area and is approximately 1.4 miles long with an outlet into the ocean just north of the Cape within the proposed MCA. This stream has a natural fish barrier near the mouth and does not host any anadromous fish species. Cape Lookout State Park is mostly contained within the Netarts Bay-Frontal Pacific Ocean Watershed, which is a small watershed of 25 square miles that includes 14 perennial streams, the Netarts Bay estuary (3.6 square miles), and approximately 7 miles of Pacific coastline. The majority of this watershed drains into Netarts Bay, with the southern portion draining directly into the Pacific Ocean.

Annual precipitation for the Netarts Bay-Frontal Pacific Ocean Watershed ranges from a low of 90 inches per year in the north end of the watershed to 110 inches per year in the highest elevations of the southern portion of the watershed according to the state precipitation map. The nearest climate station with a long-term record is in Tillamook which receives about 2,300 mm (90 inches) of rain per year. The rain is highly seasonal with a winter maximum. The months of November through March average greater than 250 mm (10 inches) each. However July and August receive only 50 mm each (2 inches). The climate summary for Cascade head, another cape to the south, may be more representative of the climate conditions on Cape Lookout. Coastal fog accounts for about a 25% increase in annual precipitation at Cascade Head due to drip from trees. Cape Lookout is often enshrouded in fog. It is also subject to extreme wind events.

The terrain of the cape is relatively level on top of the cape with sheer basalt cliffs along most of its perimeter. Wetlands occur in shallow depressions atop the cape. Runoff is directly to the Pacific Ocean. The watershed is in pristine natural condition. The area has experienced little to no extractive resource use. Areas to the north of the cape contain the core area of Cape Lookout State Park with a day-use area, parking, and campgrounds.

The watershed is nearly all forested; many areas are in old-growth forest. According to Juday (1975) the three major vegetation groups are (1) shrub-herb headland; (2) pure Sitka Spruce forest, often with a salal understory; and (3) Sitka Spruce - Western Hemlock /licorice fern forest (plus salmonberry-alder in early succession).

Cape Lookout is an Oregon Natural Heritage Area (ONHP 2015). Reasons for its designation include it being an area in which to conduct research, as an undisturbed standard against which to monitor environmental quality, and an area from which to accumulate baseline data on coastal headland terrestrial, marine, and aquatic ecosystems.

Existing Protected Areas

Are there any other overlapping protected areas within the site?

The proposed Cape Lookout Marine Conservation Area (MCA) boundary is adjacent but not overlapping with Cape Lookout State Park. The shoreward boundary of the proposed MCA is at the mean high tide contour, which also defines the state park boundary.

There are rocks and islands of the Oregon Islands National Wildlife Refuge within the outer boundary of the plan area but those lands are above the mean high tide contour and are not intended to be part of the plan area.

Oregon Natural Heritage Areas, while not intrinsically protected by administrative rule, do emphasize preservation. Cape Lookout is a Natural Heritage Area (ONHP 2015) and was placed on the Oregon Register of Natural Heritage Resources in 1988 (<https://inr.oregonstate.edu/orbic/natural-areas-program/register-natural-heritage-resources>). The register is a list of Oregon's most important sites with significant natural heritage resources. The Cape Lookout Natural Heritage Area is inclusive of Cape Lookout State Park uplands and intertidal habitat down to the "mean lower low line" (Juday 1975). Intertidal habitat along the base of the cape's north and south cliffs overlap between the defined Natural Heritage Area and the proposed MCA.

The shoreward boundary of the proposed MCA is at the mean high tide; however, the management recommendations for this proposal consider rocky habitat needs and functions inclusive of the area between mean high tide and the vegetation line. Managing at appropriate spatial and temporal scales is a key principle of ecosystem based management (Long, R et al, 2015). Establishing management boundaries based on ecosystem functions is another key principle of ecosystem based management. Ecological units and ecosystem based management are stated as management principles in the amended Rocky Habitat Management Strategy. Coordinated management that relies on holistic management over jurisdictional boundaries is needed to achieve the goals of the amended Rocky Habitat Management Strategy.

Site Characteristics

Please include descriptions of other characteristics of the site or adjacent area.

Much of Cape Lookout and the surrounding area is forested with few homes other than in the community of Netarts. While old-growth forest can be found within the boundaries of Cape Lookout State Park, surrounding forests are vegetated with younger conifer dominated stands at various ages dependent upon the most recent harvest date.

State Park lands atop the cape and its steep faces are in a natural, nearly pristine state. The park's core area, where most of the recreational support facilities are located, will continue to serve as the main gateway to the park's recreation opportunities. The core area also contains all of the suitable ground for the development of new facilities in the park other than trails. Further south, the Cape Trailhead parking area serves the Cape Trail where it intersects the Oregon Coast Trail.

Long stretches of sand beach extend north and south of the cape. The beach to the north is experiencing significant erosion that threatens park facilities. Efforts to stabilize the shoreline near park facilities favor

methods that maintain an appearance similar to natural conditions. The artificial dune that now protects most of the campground may be enlarged in length and/or in height. Relocation of the day-use area and some loops in the campground to avoid flooding is being evaluated.

The Cape Lookout Road, built in the early 1960's, connects the community of Netarts Bay to the north with the Sand Lake community to the south. Netarts is a small community located at the mouth of Netarts Bay. The town is separated from the Pacific Ocean by a long spit of forested sand. The bay provides a sheltered estuarine habitat.

The community of Sand Lake is rural with dispersed homes. The primary feature is the Sand Lake Recreation Area that is part of the Siuslaw National Forest. This recreation area is a popular site for off-road vehicle users to recreate. There are dunes and a stretch of sand beach to drive on and explore. Camping is available at this site as well.

Additional Designation Rationale

Please describe any other reasons you think this site warrants a change in designation.

The Audubon Society of Lincoln City appreciates the opportunity the Ocean Policy Advisory Council has given community groups like ours to nominate coastal rocky habitat sites for marine education, research, or conservation designations. In doing so, the Council has empowered us to take action and address issues of concern to all Oregonians who value the coast and its nearshore environment. In the process, we have become more aware of the opportunities Cape Lookout provides to educate the public, especially the hundreds of children who attend programs at neighboring Camp Meriwether each year and the Park's thousands of visitors as well, about the natural resources of our rocky habitats, the creatures and birds who make it their home, and how rocky habitats, especially kelp beds, can help mitigate the damaging impacts of climate change.

Samuel Boardman, the first State Parks superintendent, established Cape Lookout State Park more than 80 years ago. Fortunately, his "crown jewel" of the Oregon coast still retains much of its wilderness character-its ancient Sitka Spruce forests, its sheer inaccessible cliffs, its isolated south beach. This sense of isolation and wildness is the perfect environment for children at Camp Meriwether and Park visitors to experience the natural world, learn more about it, and take steps to preserve it. Designating the rocky habitats of Cape Lookout as a Marine Conservation Area (MCA) provides us with the opportunity to build community to ensure that the natural values of our marine environment are preserved for future generations to discover and enjoy.

We have also become aware that the best approach to mitigating the impacts of climate change and other stressors on Cape Lookout's rocky habitats is to work with and foster cooperation and coordination among local, state, and federal resource management agencies, and Tribal Nations. Doing so will help ensure that ecosystem-based management principles guide management decisions for marine resources, wildlife, and habitat.

Despite the challenges of Covid-19 and the summer fire season, we succeeded in reaching out to numerous stakeholders and the general public to inform them about the opportunity to nominate rocky habitat sites for designation. We created a Facebook page called "My Favorite Rocky Habitat," presented webinars, wrote letters, made phone calls, spoke at City Council meetings, and even knocked on doors. Our outreach strategy worked. We received numerous letters of support for designating the



rocky habitats on the north and south sides of Cape Lookout as a Marine Conservation Area from a variety of stakeholders - the Confederated Tribes of Grand Ronde Natural Resources Manager, numerous environmental groups (local and statewide), Camp Meriwether, communities of faith, and nearby residents. Listen to a few of their voices: 1) "Cape Lookout serves as an excellent choice for a Marine Conservation Area within Oregon's Rocky Habitat Management Strategy;" 2) "It is really up to us, as concerned citizens and community members, to protect what we value;" 3) "Thank you for taking these small, but needed, steps to protect this fragile earth, our island home;" and 4) "I just want to say I'm very grateful for the efforts on this proposal and you have my 100% support."

Our proposal emphasizes education, stewardship and active community engagement as the best and most effective means to preserve and protect the natural values of coastal rocky habitats. Audubon Society of Lincoln City looks forward to helping ensure that the management strategies we have outlined in this proposal are implemented successfully.

Other Proposals

Should this proposal be evaluated in conjunction with other proposals your entity has submitted? The merit of all proposals are evaluated independently unless otherwise indicated by the proposing entity. Review bodies reserve the right to also evaluate proposals spatially in relation to one another.

No. This proposal is being submitted for review independent from another proposal being submitted by ASLC to designate Cape Foulweather Complex as a Marine Conservation Area.

Additional Information

What other information would you like to include about this site or your proposal?

The following materials are attached to this proposal (CL in file names denotes "Cape Lookout"):

CL Proposal tables and figures from

01: CL Proposal Tables and Figures

CL Nearshore Strategy species data

02: CL Species Data

CL Proposal support letters

03: CL Proposal Support Letters

CL News Articles & OPEds

04: The News Guard November 2020

05: Newport News-Times November 2020

06: Oregon Coast TODAY November 2020

07: Tillamook County Pioneer November 2020

08: Tillamook County Pioneer December 2020

ASLC Newsletters

09: The Kingfisher Winter 2019/20

10: The Kingfisher Summer 2020

11: The Kingfisher Winter 2020/21



Website feature articles

- 12: Protecting Black Oystercatchers 201907**
- 13: Oregon's Rocky Habitat Belongs to You 202001**
- 14: Rocking the Tillamook and Lincoln Coasts 202003**
- 15: Protecting Our Rocky Shores 202011**

CL One-page Flyers

- 16: Flyer Five Reasons to protect Rocky Habitat**
- 17: Flyer Five Reasons to protect Kelp**
- 18: Flyer The Oregon Coast Rocks**
- 19: Flyer Cape Lookout Rocks**
- 20: Flyer Managing Our Rocky Coast (DLCD-OPAC)**

CL Bibliography

- 21: CL MCA Proposal Bibliography**

CL Proposal

- 22: CL Proposal**

There are 22 attachments to this proposal as listed in the above section. A site plan and report as generated by SeaSketch are also attached to this proposal.

Attachment 22: CFC Proposal is a pdf document with our identical responses as stated in all the sections in the proposal. The SeaSketch proposal survey platform does not accept formatting. Therefore, all the headers in responses to the main body of the proposal form are capitalized with all other formatting removed. Attachment 22 is being made available to show reviewers our intended formatting and organization of responses. The text is identical to that in the proposal form.

Additional Materials

If there are any additional documents, materials, etc. that you feel may be relevant or pertinent to your proposal, please attach them here.

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OCMP

Initial Proposal Period

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<https://seasketch-uploads.s3-us-west-2.amazonaws.com/c66c5109-cf31-469b-be95-0202a87fb3e3/14RockingtheTillamookLincolnCoastsMar2020.pdf>

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