Oregon Rocky Habitat Management Strategy Site Designation Proposal: Blacklock Point MCA

Note to Readers

A Bibliography, Lists of Figures and Tables, Glossary of Terms and Abbreviations, and Acknowledgements appear below under Additional Information. Figures, Tables, Outreach related materials and Letters of Support are attached as separate files.

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?

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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.

_X_ 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?

This section outlines the context, nested hierarchy of goals and objectives, and related metrics that are the foundation of the proposed Blacklock Point MCA designation: 1. Context, 2. the Rocky Habitat Management Strategy (hereafter, RHMS) goal and objectives, 3. related state of Oregon coastal conservation management goals, 4. the goal of the proposed Marine Conservation Area (MCA) designation, 5. The Site-Specific Goal and Objectives, and 6. Measurable outcomes or metrics to determine progress toward or achievement of the site-specific goal or objectives.

1. Context

We recognize that Blacklock Point and surrounding areas are the ancestral lands of the Coquille Indian Tribe and the Confederated Tribes of Siletz Indians.

The context within which this proposal is being advanced includes the following, and their interactions: increased human activity; local to regional manifestations of changing ocean conditions; significant threats and impacts to nearshore marine and other habitats and resources; adequate laws but incomplete implementation or enforcement of them due to agency or management budget and staff capacities that currently, and for the foreseeable future, do not meet resource protection needs, and; an integrated set of non-regulatory management measures (NRMM) in this proposal to support cooperative, community-based, site-specific rocky habitat ecosystem-based management that allows for adaptive and holistic protection, stewardship, education (as a mainstay of compliance enforcement and to interpret site features and rocky habitat and resources values), and citizen science including monitoring, while continuing to allow existing legal human uses, including all fishing, and no effect on access and activities by members the Coquille Indian Tribe, the Confederated Tribes of Siletz Indians, or other federally recognized tribes as appropriate, without foreseeable need for new regulations or restrictions. Indeed, we consider this proposal to be conservation and sustainability oriented, in large part to allow, support, and enhance opportunities for continued fishing and tourism, major pillars of the southern Oregon coast economy, as well as healthy outdoor activities for local residents in places we love, all key to upholding and sustaining the society, culture, environment and economy of the southern Oregon coast region.

In addition, in the context of current and future times, the state territorial sea plan (TSP; https://www.oregon.gov/lcd/OCMP/Pages/Territorial-Sea-Plan.aspx) mandates that nearshore and continental shelf ocean resources be adaptively managed on an ecosystem basis for desired future conditions, while considering the realities of past, present and likely future unprecedented changes in climate driven and other environmental changes and their severe impacts on nearshore rocky habitats and resources. Based on long time series datasets collected nearby at Cape Blanco (and elsewhere) by PISCO, we are concerned that the ecology of Oregon's rocky intertidal habitats is reaching a tipping-point as a result of environmental stressors from climate change. Oregon's economy depends on the sustainable use of marine resources, especially in the context of a changing climate. Oregon's marine ecosystems are experiencing unprecedented changes including marine heatwaves, loss of essential fish habitats and fished stocks, and shifting distributions of marine species, which have profound impacts on fisheries and other marine resources and the

coastal communities that rely on them. As such, understanding, predicting, and forecasting these changes in Oregon's coastal and nearshore marine environments is vital to ensure that we are able to effectively respond to changing ocean conditions and adaptively manage marine resources.

Along with the above, the National Marine Fisheries Service (NMFS) has designated Oregon's rocky reefs, canopy-forming kelp forests, sea grass beds, and estuaries as "Habitat Areas of Particular Concern" (HAPC) (NMFS 2006). HAPCs are a special category of Essential Fish Habitat (EFH) identified because of the importance of the ecological function of the habitat, or its sensitivity, vulnerability, or rarity of the habitat type. However, no management measures are associated with this HAPC designation at this time. This points to the critical need to enact the proposed RHMS MCA designation for Blacklock Point, because these Habitat Areas of Particular Concern are now of much more serious and urgent concern in the recent and current contexts of the multiple, interacting, and complex events, phenomena, or factors that have led to significant reductions in: areas of canopy forming kelp habitats; the ecological resiliency of this and other nearshore rocky habitats, and; other impacts to these and other HAPCs in southern Oregon. These impacts are synergistic or interactive and cumulative and include the blob and marine heat waves that both began in 2013, sea level rise, hypoxia, ocean acidification, significant declines in kelps and kelp forests, sea star populations (due to epidemic sea star wasting syndrome which has changed the structure of rocky intertidal and subtidal habitats), and abalone, massive recruitment starting in 2013-2014 and resulting population explosions of purple sea urchins and their forcing of the shift from lush kelp forests to urchin barren grounds. All of these phenomena have combined into a "Perfect Storm" where climate change effects have become locally to regionally manifested as the marine heat wave and changing nearshore ocean conditions, including the "Calamity in the Kelp forests" due to recent widespread disruptions of ecological dynamics in subtidal rocky habitats continues to occur along the Oregon coast and elsewhere on the Pacific coast of North America (Laffoley and Baxter 2016, Rogers-Bennett and Catton 2019; Rumrill 2020a, b). Examples of the effects of the marine heatwave and other changes in nearshore ocean conditions include: higher temperatures resulting in physiological stress and shifts in species' geographic ranges (including the first documented occurrences of marine invasive and non-native species along the exposed outer coast of Oregon, along with changes in species depth distributions, behaviors, reproductive timing, mortality schedules, and widespread alteration of nearshore ecosystem composition and structure; uncertainty regarding the timing and intensity of upwelling in the California Current Large Marine Ecosystem off the Oregon coast resulting in regional impacts to nutrient availability, biological productivity and food web structure and function; increased Ocean Acidification leading to susceptibility of embryos and larvae – critical and sensitive early life stages of most marine invertebrates and fishes, and adults including economically valued target fisheries species, and; combined, interacting, and cumulative effects of these and other phenomena causing changes in nearshore ecosystem structure, function, resilience, and availability of ecological goods and services, including local fisheries, and their values with respect to food security and as important regional economic drivers. All of these convergent conditions present a critical ecological situation and a complicated management problem (Rumrill 2020a).

Further, two species of abalone, *Haliotis rufescens* (Red Abalone) and *H. walallensis* (Flat Abalone) were targeted in commercial and sport fisheries which were closed from 2018-2020 (ODFW has requested to extend the abalone fishery closure through 2023, and has developed the Oregon Abalone Conservation and Fishery Management Plan or a *de minimus* no-effect fishery (Rumrill 2020b). Due to declining harvest trends, low fisheries-independent survey densities, impacts of the epidemic withering foot syndrome, decreased availability of kelp and other algal foods, increased competition for food from increased purple sea urchin populations, absence of urchin predators due to Sea Star Wasting Syndrome (SSWS), and the other impacts mentioned, abalone in Oregon are very likely to be locally or ecologically extinct or, at best, extremely rare throughout their geographic range, particularly on the southern Oregon coast, where they likely occur as non-reproductive low density pseudopopulations due to large nearest neighbor distances of adult abalone that exceed the ability of their free-spawned gametes to mix, leading to extremely low fertilization success and therefore, low reproductive potential (Basch, personal observations 1988-2020, Hart

et al. 2020). At the same time, these and other species and the habitats they depend on are facing unprecedented severe, multiple, interacting stresses. It is therefore critical to manage nearshore rocky habitats per state and federal mandates and the precautionary principle, to minimize further impacts, and to maximize ecological resiliency in order for these productive and economically valuable systems to recover and survive. While we do not support new regulations or restrictions on fishing within this proposed MCA we also are keenly aware of the saying “No habitat, no fish.” Consequently, the non-regulatory management measures we propose will provide adaptive, ecosystem-based approaches which, together with the precautionary principle, can lead to increased rocky habitat resiliency, restored/recovered, and protected habitats and populations, and sustained delivery of their ecological goods and services including fisheries and other human uses and benefits.

2. The site-specific goal and objectives align with the goal and objectives of the Rocky Habitat Management Strategy and the Territorial Sea Plan as a whole.

RHMS GOAL**:** "This strategy aims to be a coordination and adaptive planning framework focused on the long-term protection of ecological resources and coastal biodiversity within and among Oregon's marine rocky habitats, while allowing appropriate use."

OBJECTIVES (from page 1 of the RHMS):

1. To maintain, protect, or restore rocky habitats and biological communities;
2. To implement a holistic management program through site designations and management recommendations that allows for enjoyment and use of Oregon's rocky habitats while protecting them from degradation and loss;
3. To enhance appreciation and foster personal stewardship of Oregon’s rocky habitats through education, interpretation, and outreach;
4. To improve our knowledge and understanding of rocky habitat ecosystems by fostering research and monitoring efforts;
5. To facilitate cooperation and coordination among local, state, and federal resource management agencies, and appropriate tribal governments, to ensure that marine resources and habitats are holistically managed.

3. In addition to the RHMS, there are other, complimentary state of Oregon conservation goals that must apply. These include the overall State Conservation Management Goals that set the priorities for the Oregon Department of Land Conservation and Development (ODLCD) Coastal Management Program and provide context for the Territorial Sea Plan (TSP) and the RHMS. Statewide Planning Goal 17 pertains to Rocky Habitat: Goal 17 sets out planning and management requirements for lands bordering estuaries (as well lands bordering the ocean shore and coastal lakes).

Goal 17: "To conserve, protect, where appropriate, develop and where appropriate restore the resources and benefits of all coastal shorelands, recognizing their value for protection and maintenance of water quality, fish and wildlife habitat, water-dependent uses, economic resources and recreation and aesthetics. The management of these shoreland areas shall be compatible with the characteristics of the adjacent coastal waters; and To reduce the hazard to human life and property, and the adverse effects upon water quality and fish and wildlife habitat, resulting from the use and enjoyment of Oregon’s coastal shorelands." (https://www.oregon.gov/lcd/OCMP/Pages/Coastal-Goals.aspx)

It is important to note that the proposed MCA site designation and related management recommendations (= measures) align with and support several elements of the above and the OPRD Ocean Shore Management Plan (https://www.oregon.gov/oprd/PRP/Documents/PRP_PLA_OS_FinalOceanShoresMP052305.pdf).

In addition, the ODFW has a Nearshore Strategy that frames agency management goals which are complementary with the goals and objectives stated above, and those of the MCA designation and site-specific goals and objectives below. The Nearshore Strategy is part of the Oregon Conservation Strategy. The "Mission" of the Nearshore Strategy is "To promote actions that will conserve ecological functions and nearshore marine resources to provide long-term ecological, economic, and social benefits for current and future generations of Oregonians." The "Vision" of the Nearshore Strategy is "Oregon's nearshore marine resources are thriving in a healthy, functioning ecosystem due to cooperative efforts and support by current and future generations of Oregonians."
[Source https://oregonconservationstrategy.org/oregon-nearshore-strategy/

4. The site-specific goal and objectives also align closely with the goal of the proposed Marine Conservation Area (MCA) designation to **"**Conserve the natural system to the highest degree possible by limiting adverse impacts to habitat and wildlife." The MCA designation is appropriate for a "relatively intact system with high ecological value" in that it allows for "variable management based on site needs - This designation allows for different types of management prescriptions (= measures, actions) based on site conservation goals and needs." (RHMS, November 2020, p. 31).

5. Site-Specific Goal and Objectives

Goal

In cooperation and coordination with, and in support of appropriate land or resource management and law enforcement agencies, the Coquille Indian Tribe, the Confederated Tribes of Siletz Indians, and other appropriate tribes, communities, organizations, and stakeholders, educate, monitor, and apply adaptive, ecosystem-based management to conserve the ecological structure, function, and resiliency of nearshore rocky habitats and species populations facing effects of changing climate, to allow for continued legal sustainable human uses of their goods, services, and resources including fisheries, using non-regulatory management measures, to provide long-term ecological, economic, and social benefits for current and future generations on Oregon's south coast.

This proposal recommends no changes to existing human legal uses through application of proposed non-regulatory management measures (NRMM) in a balanced approach to maximize both human uses and conservation of rocky habitats and resources. A major element of proposed NRMM is the development, training and implementation of a site-based volunteer stewardship program to assist and support OPRD and other agencies in carrying out management activities on site into the future (e.g., visitor engagement; public education and interpretation; notifying visitors about compliance and safety issues; cooperation and communication with law enforcement, as a last action after all other visitor compliance measures have been exhausted; monitoring, trail maintenance).

Site-Specific Process Objectives / Recommended Actions

An objective is defined here as a measurable action to achieve a management goal, hence in this proposal the terms objective, recommended action, or management measure or recommendation have the same meaning.

a. Foster cooperation and coordination among local, state, and federal land, resource management, and law enforcement agencies, the Coquille Indian Tribe, the Confederated Tribes of Siletz Indians, or other

appropriate Tribal Nations, communities and individual stakeholders to ensure ecosystem based management principles guide management and protection of marine resources, wildlife, and habitat at the Blacklock Point MCA.

b. Engage a wide range of partners and stakeholders to support OPRD and other agencies in adaptive management of the BP MCA to achieve the designation goal and objectives and related non-regulatory management measures.

c. Enhance public appreciation, awareness, and understanding of rocky habitats and resources within the MCA by: fostering personal stewardship behaviors, a sense of personal responsibility and advocacy or "ownership" of rocky coasts; providing training for stewards, citizen scientists and other volunteers to fill gaps in service to the public (e.g., education, interpretation, outreach, monitoring, enforcement reporting, maintenance) in support of agencies with site or resource management responsibilities.

d. Identify knowledge and management gaps for fully achieving site designation goals and implement monitoring, research including citizen science, or other actions to fill those gaps (e.g., invasive species identification and control, tracking trends in sea star wasting disease, trampling, etc.). Research and monitoring needs are initially defined in the Oregon Nearshore Strategy; those needs for nearshore rocky habitats occurring within the BP MCA should be prioritized.

e. Use public education as the primary enforcement mechanism to obtain compliance with existing site and coastwide policies, rules and regulations, only requesting resources protection or law enforcement personnel support when education efforts do not result in compliance, or in cases involving risks to human safety, damage to resources, or emergency conditions.

f. Monitor and maintain existing physical access to rocky habitats, trails and visibility of signage.

Site-Specific Resource Objectives / Recommended Actions

a. Prevent or reduce onsite human caused disturbances, threats, or impacts to marine resources within the BP MCA, whether direct, from drones, or by uncontrollable off leash dogs - of pinnipeds, other marine wildlife, seabird breeding colonies, Black Oystercatchers, other sea- and shore-birds utilizing rocky habitats especially during nesting season (April - August), or from trampling rocky intertidal organisms, overharvest, or other disturbances.

b. Encourage and support appropriate government agencies and stakeholders to coordinate and collaborate specifically to develop and implement solutions to land use practices outside of the BP MCA that are impacting nearshore rocky habitats and resources within it.

c. Maintain the spatial area of canopy-forming kelp beds within the mid-upper range of natural interannual variability.

d. Maintain, improve, restore, or allow conditions for recovery of the structure, functions, ecological integrity, resilience, and ecological goods and services of kelp forests and other BP MCA rocky coast habitats catastrophically impacted by changing ocean-climate conditions, as measured by changes in habitat complexity, biodiversity, and population structure of dominant, keystone, biogenic habitat forming, Nearshore Strategy, or other species of concern.

e. Provide public engagement, education, and interpretation about: BP MCA natural and cultural resources; appropriate behaviors and activities to protect these, and; rules, safety, and compliance enforcement through

friendly peer-to-peer educational encounters. Develop public awareness to build a community sense of ownership of place and a public stewardship ethic.

6. Measurable Outcomes or Metrics to Determine Progress Toward or Achievement of the Site-Specific Goal and Objectives

The goal and objectives for the BP MCA designation can be met through implementation of the recommended site-specific management measures contained in this proposal which stem from the policies stated in the RHMS and companion documents. Each of the objectives (= management measures or recommendations, or recommended actions) included in this proposal include specific metrics for evaluation of progress toward or achievement of objectives. These evaluation metrics are summarized by category.

a. Cooperation, Collaboration and Partnerships Metrics

Within 1-2 years of site designation, identify potential new partners, stakeholders, funders, volunteers, and stewards; hold public meetings or workshops to develop, prioritize, and implement major elements of the proposed site-specific non-regulatory management measures, including the stewardship program; number and diversity of stakeholders actively participating; number of community and online meetings or workshops held; numbers and types of program elements funded and implemented; number of new informational, interpretive, and user guidance signs designed and installed and related materials distributed to visitors; identification, feasibility assessment, and pursuit of external funding sources to support proposed non-regulatory management measures.

Community and stakeholder engagement, cooperation and collaboration is an essential component of ecosystem based management and related monitoring and is evident in several objectives of this designation. A main factor for the success of protected areas is community engagement (e.g., Andrade and Rhodes 2012). Key community engagement actions identified in this proposal include (but are not limited to): development of a volunteer stewardship program, creation of curricula and digital media content for K-12 and public education, and hosting a biennial symposium on the State of the Blacklock Point MCA. This meeting presents an ideal opportunity to foster and further coordination and collaboration among communities, agencies, the Coquille Indian Tribe, the Confederated Tribes of Siletz Indians, other appropriate Tribal Nations, and other interested organizations, individuals, and partners to periodically evaluate progress toward achieving the site specific and MCA designation goals and objectives for adaptive ecosystem based management.

b. Education Metrics

Within 1-2 years of site designation: engage an Oregon Sea Grant Fellow, the education and coastal training programs of the South Slough National Estuarine Research Reserve, the Charleston Marine Life Center, the U. of Oregon, Oregon Institute of Marine Biology, Oregon Coast Aquarium, or other local and regional outdoor/environmental/marine education specialist(s) to cooperatively and collaboratively develop public education, K-12, and steward training curricula and materials based on existing ones from partner

organizations (e.g., Coastwatch (CW), Sea Education for Awareness (SEA), Haystack Rock Awareness Program, Northwest Association of Marine Educators (NAME), etc.), focused on coastwide and site-specific

rocky coast features and issues, for delivery by trained site stewards to students and other visitors; these and other programs have a proven record of commitment to coastal marine education through well-established local educators networks, effective curricula, and multimedia messaging and materials; reach out and attempt to engage interested students, organizations, and teachers at the nearby (3 miles) Pacific High School to become site stewards or engage in educational, monitoring or maintenance opportunities with stewards; document number of local residents and visitors engaged, number of teachers engaged and trained, number of students engaged in education or interpretation opportunities and trained and participating in monitoring and maintenance activities on site, number of school field trips, number of interpretive encounters or programs presented; number of active volunteer site stewards trained and mobilized; new educational and interpretive materials created; number of public visits to social media and other digital information sources, e.g., the South Coast Rocky Shores Group Facebook page (https://m.facebook.com/southcoastrockyshores/posts/?ref=page_internal&mt_nav=0), the CoastWatch program website (https://oregonshores.org/coastwatch); publish at least one feature article per year in, e.g., the Oregon Shores Newsletter focused on natural resources, uses and enjoyment of the BP MCA; host a biennial symposium on the state of the BP MCA, or a coastwide symposium including all designated rocky habitat sites (and designation types); number of students, visitors, and citizen science participants involved and hours engaged in resources monitoring, bioblitz or other inventories, invasive species search and control efforts, and trail maintenance; number of additional rocky habitat species documented on site via iNaturalist and other means; number of participants in public contests and events for, e.g., best documented wildlife or nature observations at the BP MCA, best photographs, most effective steward, most active steward, etc.; number of participants in “Junior Steward” independent activities or group events; design and placement of signage and related informational brochures and materials; identify and obtain external funding support.

An informed, aware public is more inclined and capable of being both better stewards and advocates for external and government funding to support agencies in implementing necessary management actions to achieve RHMS and site-specific goals and objectives. While public access to beaches and rocky shores remains an iconic value for Oregonians, some rocky coast habitats and their inhabitants are being “loved to death” by uninformed, unintentional, or irresponsible human activities. Education needs to emphasize proper tidepool etiquette, appropriate human behaviors, low impact fishing practices, and related measures to protect wildlife and resources at the proposed BP MCA.

c. Protection Metrics

Within 1-2 years of site designation, document: number and types of observed or documented human caused disturbances, threats or impacts to rocky habitats and resources; nesting success of Black Oystercatchers (long term baseline information is available from the Oregon Black Oystercatcher Project, https://audubonportland.org/get-involved/community-science/black-oystercatcher/), Snowy Plovers, other shore- and seabirds at or near the BP MCA; evidence of trampling intertidal resources, overharvest, poaching, or other illegal activities; amount of notes, photographs or videos that document potential inappropriate or illegal human behaviors or actions; number of visitor “education for enforcement

compliance" encounters concerning (in)appropriate human behaviors and activities, to protect visitor safety and site resources; number of calls to resource protection or law enforcement agencies after visitor compliance education attempts; number of warnings or citations given by enforcement officers for documented illegal activities; number and effectiveness of invasive species detection, prevention, or control efforts in response to monitoring; incidences of trail damage, littering, human waste, or unpermitted camping; design and installation of signage; identify and obtain external funding support.

d. Stewardship Metrics

Within 1-2 years of site designation, document: number of active volunteer stewards trained and deployed; training records for stewards; number of steward hours on site by activity type (e.g., interpretation, compliance, monitoring, maintenance, citizen science, etc.); number of steward patrols; patrol logs and other records and documented observations; number of local residents and visitors observed by activity type; number of public education encounters with visitors; number of education for enforcement compliance encounters with visitors; outcomes from reported enforcement requests after attempting visitor compliance encounters; participation levels and success of community citizen science efforts; number of trail miles monitored and maintained; number of individuals and hours conducting monitoring efforts; number of invasive species detection and control (removal) attempts; cooperatively identify and obtain external funding support, and with this, initiate development of: a coastwide rocky shores stewardship program network and, nested within this, site-specific stewardship programs for BP and other designated sites; establish related uniform standards for volunteer recruitment, training, and curricula (for K-12 and public education and interpretation) focused on the ecology, threats and impacts, and effective stewardship actions for the public at BP and other designated sites. CoastWatch has well established protocols and a data management system to support coastal stewardship that can be incorporated, modified or used as a model, and for tracking the activities and achievements of the rocky shores stewardship program(s).

e. Climate Change and Resiliency Metrics

The metrics for evaluation of site specific and regional efforts to build climate change considerations and ecological resiliency to related impacts into stewardship, education, and monitoring efforts will rely on concepts and measures identified in the Oregon Climate Change Adaptation Framework (https://www.oregon.gov/lcd/CL/Pages/Adaptation-Framework.aspx). The Climate Change Adaptation Framework provides metrics and processes for evaluating responses to climate change. Many currently used natural resource management tools do not explicitly incorporate climate change information; at best, some management tools include methods for addressing some scientific uncertainty (e.g., harvest quota estimates), 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 further destabilization of marine resources, and the businesses, and local economies that rely on resource availability for harvest, tourism or other purposes.

Within 1-2 years of site designation, as part of developing educational curricula, incorporate current information on scientifically documented regional and local disturbances, threats, or impacts to rocky habitats, their causes and consequences for the resiliency, maintenance, recovery, or restoration of rocky habitats and resources, and for local communities and economies, for messaging to the public and K-12 school students, including the necessity of implementing the BP MCA designation and associated management measures as soon as possible, as a precaution, in order to maximize the action space and available management options for protection of currently compromised resources (e.g., kelp forests) in uncertain, potentially continuing deleterious future conditions; using this information and on site observations determine what impacts from changing ocean-climate conditions are readily observable and feasible for monitoring by stewards, students, and citizen scientists; implement monitoring on impacts from changing ocean-climate conditions as noted in monitoring metrics below (e.g., number of intertidal sea stars observed with wasting disease; types and numbers of rocky intertidal species showing visible signs of other diseases or sublethal stress from heat shock; estimated storm wave height and frequency from the Blacklock Point overlook). While Sea Level Rise (SLR) is a virtual certainty coastwide, we have not determined any specific risks associated with SLR at the proposed BP MCA in terms of human safety or threats to habitats or resources. This said, long term effects of SLR are likely to include gradual upward vertical shifts in the distribution and abundance of rocky intertidal organisms, particularly sessile species, and a corresponding increase in the area and volume of nearshore shallow subtidal habitat adjacent to the low intertidal zone that could be colonized by shallow subtidal species as sea level rises. We will work with knowledgeable individuals to develop and implement related metrics.

f. Monitoring and Research Metrics

Monitoring of biological and environmental conditions is often complicated by the fact that many factors, phenomena, or features interact with one another to create often unpredictable synergistic or cumulative effects or impacts. Monitoring for social and economic trends also present some challenges. Despite these, there are many existing, successful, and sustainable models for monitoring by trained members of the public including those without a scientific background, e.g., the CoastWatch (CW) program (https://oregonshores.org/coastwatch). CoastWatch provides a well established, highly regarded and successful program for recruiting, training, and supporting volunteers and managing data collected by coastal stewards.

Human dimensions information is central to understanding the context of natural resource issues and how people, coastal communities, economies, and nearshore resources are interrelated and might be affected by various management actions. The social and economic benefits and consequences of resource management actions need to be an integral part of the resource management process. Studies are needed of social and economic patterns and trends as they relate to rocky habitat resources, human use of resources, and effects of resource management actions on individuals, user groups, or communities. Studies can be coordinated among all the designated rocky habitats coastwide. Potential topics include coastal community demographic trends, economic and social contributions of industries that depend on rocky habitat resources directly (e.g., fishing) or indirectly (e.g., tourism), and the impacts of management changes. In some cases, new methods will need to be developed to study these topics and develop data useful for resource management.

Recent information indicates large scale invasive species problems are occurring in coastal marine systems in Oregon and other coastal states and provinces. There is a general lack of information, which does not indicate that invasive species problems are a minor concern. Once a species invades or is introduced it can affect food webs, introduce toxins, alter habitats, and out-compete native species. Early detection and rapid management responses to invasive species problems are cost-effective and can ameliorate the problem before an invasive species becomes well established. A network of designated rocky habitat sites with trained observer-stewards along the Oregon coast can serve as a living laboratory for early detection of invasive

species problems. Coordination is required between management agencies and researchers to develop and implement rapid survey and assessment methods for early identification and management responses to invasive species at a coastwide scale among all designated rocky habitat sites.

Within 1-2 years of site designation, initiate on site resource-specific, human uses (including inappropriate or illegal uses), trail infrastructure and site monitoring and related volunteer training and testing for consistency and accuracy of data collection among different observers. Metrics for what can be monitored by trained volunteers to track impacts and local manifestations of changing ocean-climate conditions and other disturbances include (but are not limited to): number of intertidal sea stars observed with wasting disease; types and numbers of rocky intertidal species showing visible signs of other diseases or sublethal stress from, e.g., heat shock; numbers of rare, threatened, endangered or other species of concern (including, e.g., abalone, sunflower sea stars, Black Oystercatchers, Snowy Plovers, Marbled Murrelets, pinnipeds, otters, whales); estimated storm wave height and frequency viewed from the Blacklock Point overlook; estimated relative abundance of drift kelp on shore between and following storms; estimated area of offshore canopy-forming kelp beds within mid-upper range of interannual variability viewed with binoculars from the Blacklock Point overlook; number of dead Common Murres (baseline data available from the Coasst Program (https://coasst.org/about/our-story/), Cormorants, and other dead sea- and shore-birds or marine mammals observed washed up on shore; number of Black Oystercatcher and other coastal bird species nesting pairs visible from Blacklock Point; numbers and species of pinnipeds hauled out on rocks; numbers and species of pinnipeds showing symptoms of possible disease transmission between marine wildlife and humans (Waltzek et al., 2012); number of types and specimens of invasive species discovered and removed; number of types and pieces of marine debris > 100 cm in area, especially those pieces with attached invasive species; number of participants engaged in on site bioblitz or other inventory events, other citizen science, monitoring, maintenance, or training events and activities; number of trail miles monitored and maintained, and; tracking of other factors, observations, or phenomena used as metrics in other evaluation metric categories above. Progress towards achieving the site-specific goal and objectives will be measured by participation levels and quantity, quality, and adequacy of data to support adaptive and holistic management decisions for the BP MCA.

Citizen science in many jurisdictions has been shown to allow for monitoring or research on a large-scale, ongoing, cost-effective basis, which provides scientists with large and diverse data sets that might otherwise be unavailable. Citizen science also provides opportunities for engagement between the public and scientists, which can lead to increased site stewardship and strengthen linkages between the community and the MCA.

The proposed management measures identify opportunities to capitalize on existing monitoring and citizen science efforts to increase our scientific understanding of the ecological structure, functions, and integrity of

rocky habitats and resources at Blacklock Point. Future research requirements will be determined over time and needs and efforts will be prioritized per state policies and management needs to fill information gaps. For example, the site specific management objectives in this proposal include data collection or studies to better understand some of the social and economic patterns and trends identified at the site as they relate to rocky habitat resources, human use of the resources, and effects of resource management actions on individuals, user groups, or communities.

This MCA designation will help to increase the understanding of ecological trends within rocky habitats at BP as well as inform assessments of regional trends for rocky intertidal and subtidal ecosystems. Ecosystem

based management, related monitoring or research needs to happen at multiple geographic (e.g., site specific and regional) and time scales. Natural temporal variation in rocky intertidal and subtidal systems can be quite high, and can occur on the scale of months (seasonal), years, and even decades, so long-term monitoring is essential for distinguishing natural from human-induced changes. Sharing data, monitoring methods and management practices among all rocky habitat designations within Oregon and a wider regional audience would lead to more informed, effective management at and across sites. Identifying regional ecosystem trends provides greater opportunities for managers to implement adaptive management practices that are responsive to changing conditions.

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.

The proposed site and site-based non-regulatory management measures improve upon and fill gaps in management policies and objectives not addressed by coastwide (or site-specific) regulations or management in the following ways. As mentioned elsewhere in this proposal, OPRD and other agencies coastwide are currently (and are projected for some time into the future to remain) understaffed, and agency budgets are insufficient to fully implement or enforce existing approved plans, policies, or laws affecting rocky habitat resources at this and other site(s). For example, despite best possible efforts, at present the budget and personnel levels and resulting frequency of beach ranger patrols and ranger travel times to sites to respond to incident reports is such that patrols do not adequately prevent or restrain threats or impacts to coastal resources. (L. Becker, OPRD south coast regional manager, personal communication 11/24/2020). The proposed site-based management measures will create cooperative relationships with agencies' staffs that will increase capacity and allow existing gaps in management actions to be largely fulfilled by a trained volunteer steward labor source working with and under the direction of agency site managers and their designees.

This proposed designation creates an opportunity to fill gaps in site-specific ecosystem based management that provides long term ecological, economic, and social benefits for the rocky coast resources at Blacklock Point and local communities who utilize them.

a) Maintenance, protection, and restoration of habitats and natural communities.

Protection of rocky intertidal and subtidal ecological communities, habitats, species dependent on them, and their human uses will be improved by the proposed non-regulatory management measures associated with this MCA designation, which will better inform and guide the public about site features and management. Information from this proposal and observations by volunteer site stewards and others will contribute to informing government agencies and prompting them to act cooperatively to eliminate gaps in upper watershed management practices that negatively affect nearshore rocky habitats and resources (Figs. 4, 5).

The situation concerning upland soil erosion (Azhocar et al. 2008), runoff into the nearshore ocean, and impacts to marine life (see Figs. 4, 5 and Watershed Conditions, below) is a clear gap in management oversight and action that requires timely coordinated action by multiple agencies to resolve. This situation is not specific to the local watershed in which the site occurs, however the magnitude of the problem at this site may be more severe than elsewhere on the Oregon coast due to prevailing local conditions. Either a local or coastwide approach can be taken starting with meetings between the appropriate agencies (e.g., ODF, OPRD, ODSL, ODFW), landowners, and stakeholders to delineate the upland area problem source(s), gaps in existing upland management practices, and solutions. Volunteer site stewards can fill gaps in unfulfilled management actions in the lower watershed by serving to monitor, document, and interpret related nearshore ocean conditions in efforts to ameliorate threats and impacts in nearshore marine rocky habitats. Lessons learned from this local issue can be shared and applied coastwide wherever similar problems exist or have potential to occur. Although outside of the scope of this proposal, timely cooperative efforts across multiple government agencies are urgently needed to address and ameliorate upper watershed conditions as they affect nearshore marine resources; such cross-agency efforts can fill gaps in policy or management not currently addressed by site (designated or not) or coastwide regulations or management measures.

b) Allowing for the enjoyment and use of the area while protecting from degradation and loss.

Improved visitor experiences through greater information or interpretation at access points is emphasized in OPRD survey data (Bergerson 2019), which showed that 62% of users were “least satisfied” with the amount of information and education available. Proposed multipurpose signage at trailheads will greatly reduce the gap in information available to the visiting public. Proposed management recommendations call for education rather than restricting uses in order to fill gaps in protection of marine wildlife, which has been subjected to multiple human disturbances. No changes to local or coastwide harvest regulations for fish and invertebrates will remain possible into the future because proposed non-regulatory management measures (NRMM) will fill management gaps by allowing site stewards to observe resources and human behaviors, and increase awareness of visitors about resources and protections, thereby continuing to allow the public unrestricted access to and enjoyment of fishing and other activities under existing resource protections.

c) Preservation of public access.

While remote, accessing this site will remain unchanged using the existing parking areas and trail network. Public access to rocky habitats within the MCA will remain unrestricted, unless agencies with jurisdiction are required by policy or law to use their authority to impose justifiable temporary or emergency access limits in the future. The user experience at trailheads will be enriched through general informational and interpretative signage (including information on use of bicycles and horses to minimize impacts to trail infrastructure and surrounding resources that could cause closures or rerouting), a current gap in implementation of both the Rocky Shores Communication Strategy (1995) of the ODLCD Oregon Coastal Management Program, and the Curry County State Parks Master Plan (2003).

Access for members of the Coquille Indian Tribe and the Confederated Tribes of Siletz Indians, or other federally recognized Tribal Nations (as appropriate) will remain unchanged by this proposed site designation and associated management measures. Tribal Nation agreements with the state of Oregon 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) Consideration for the adaptation and resilience to climate change, ocean acidification, and hypoxia.

This proposed MCA designation is a common type of resource management tool that has been shown to improve the health of the marine environment, preserve biodiversity, and increase the number and sizes of marine species (Lubchenco and Grorud-Colvert 2015). This type of protection facilitates adaptation and resilience to climate change, ocean acidification, and hypoxia (Baxter, Laffoley, and Simard 2016). None of these indirect threats to the marine environment can be directly mitigated through protection, however, healthy, diverse, resilient ecosystems are better able to withstand such stressors.

This MCA designation would create several opportunities to fill gaps in current management regarding climate change as part of adaptive ecosystem-based management of and related decision making on marine rocky habitats and resources, as outlined elsewhere in this proposal. This proposed MCA designation builds climate resilience and climate change adaptation into non-regulatory management measures to maximize the long-term benefits of today's public investment in natural resource management. Agency capacity issues have led to climate change (including ocean acidification and hypoxia) information and related management action gaps. Filling most of these gaps will require outside investment in related measurement instruments and determining where to install them; the BP MCA, due to its relative remoteness and reduced likelihood of vandalism, would be a good candidate site for instruments that measure climate change parameters. Other related information gaps can be filled by monitoring for climate change effects on coastal resources through science-based training of volunteer site stewards and citizen scientists, who can also fill information gaps in resources status and trends, public engagement and interpretation, enforcement through compliance education, maintenance, and other needs currently beyond the capacities of the land and resource management agencies with responsibilities at this site.

e) Fostering stewardship and education of the area or coastwide.

The South Coast Rocky Shores Group, CoastWatch, other cooperators and partners will work with appropriate agencies, the Coquille Indian Tribe and the Confederated Tribes of Siletz Indians, organizations and individuals to obtain grants, matching, and in-kind contributions to initiate and implement the proposed stewardship program, in order to fill multiple management gaps stated elsewhere throughout this proposal. Based on discussions with several groups who are proposing designations for other rocky habitat sites coastwide, an "umbrella" Oregon-coastwide stewardship program is envisioned to consistently serve and support training, communications, and other needs of multiple local site-based stewardship program affiliates coastwide, by providing uniform information, interpretive materials and educational messaging that addresses coastwide and site-specific rocky habitat features and values. A coastwide "umbrella" stewardship program would benefit all designated rocky habitat sites coastwide (regardless of designation type) by allowing greater economies of scale compared to development of single, isolated site stewardship programs, and through greater efficiencies in recruitment, training, engagement of volunteer stewards, and other program elements. Several residents in the vicinity of Blacklock Point along with a number of current south coast Coastwatch volunteers have demonstrated a deep appreciation and understanding of local rocky habitats, wildlife, and viewsheds. Many have expressed an interest in volunteering as stewards to protect the natural and cultural resources at Blacklock Point, and to ensure continued access, uses, education, and enjoyment for all visitors. The MCA designation would create the opportunity to fill a gap in community

engagement by supporting development of a community sense of responsibility and pride in "ownership" of the site through a local stewardship program. A coastwide or site-focused biennial forum for community members, agencies, the Coquille Indian Tribe and the Confederated Tribes of Siletz Indians, other Tribal Nations and interested organizations and individuals would fill information gaps and allow for discussion and evaluation of progress toward achieving the BP MCA site-specific goal and objectives.

Education is emphasized over enforcement to fill existing capacity gaps and achieve the proposed designation goals and objectives. Site stewards can work cooperatively with agencies, educators, institutions and media outlets to expand public awareness of the RHMS and the BP MCA through direct visitor engagements, social media, websites, school curricula, webinars and other media and materials. On-site signage, stewardship, citizen science and interpretation will fill gaps to engage the public to increase awareness of features and issues facing rocky habitats and responsible stewardship by visitors.

Signage at trailheads will fill information gaps for users about site features and how to responsibly and legally interact with rocky habitats and resources. Local natural resources will benefit as well because education measures foster greater site and coastwide appreciation, awareness, and a sense of collective

community pride in "ownership" and protection of sites. Resource protection gaps including compliance enforcement needs can more readily be identified and served through the proposed volunteer stewardship program. State marine resources management policy addresses the importance of early detection and response to marine invasive species, which has been a management gap for exposed outer coast marine habitats. Other gaps in resource protection, including incidences of human disturbances to nesting seabirds, shorebirds, pinnipeds, and other wildlife are anticipated to decrease in response to education, signage and stewardship as proposed.

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)

Blacklock Point and North Sea Cliffs, Northern Curry County, Oregon

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.

Blacklock Point and North Sea Cliffs are the coastal section of Floras Lake State Natural Area (FLSNA) (OPRD), Northern Curry County, SW Oregon, which is between Langlois and Port Orford, north of the Sixes River mouth and Cape Blanco, west of Cape Blanco State Airport, and south of Floras Lake. The proposed site is bounded by the approximate coordinates in degrees (derived from Seasketch; Latitude / Longitude): 42.8901 / -124.5184 (NE cliffs); 42.8698 / -124.5347 (SE corner); 42.8786 / -124.5433 (NW corner); 42.8723 / -124.5470 (SW corner) (Figs. 1-3).

General Site Description*

The site is bounded by the approximate coordinates noted above, as shown on the proposed site polygon (attached). The proposed site boundary includes: the entire length of high sea cliffs to the north of Blacklock Point (see Figs. 1-3), from the cliff base up to the vegetation line; the rocky headland and boulders at the

point itself; intertidal rocky pools, boulder-cobble field, bedrock benches or platforms, and boulders, and; intertidal and subtidal rocky habitat below the mean high water line on or surrounding offshore rocks and islands, including relatively small kelp beds, out to the - 20 meter depth contour or the furthest offshore extent of kelp beds and offshore rocks and islets (whichever is furthest; see Fig.1 and proposed site polygon). Along the ocean shore in the park are black sand beaches, sea terraces and high sandstone bluffs eroded by the wind and sea. Archaeological sites reflecting the long history of indigenous people and their uses, as well as living cultural resources occur onsite. Few historic artifacts remain at Blacklock Point, where the Blacklock Sandstone Co. quarried sandstone starting in the1880s. The rock was shipped by sea to San Francisco but after some years the business proved uneconomical (Curry County State Parks Master Plan 2003). The Sixes River mouth is close by to the south, just north of Cape Blanco, and exerts intermittent effects on the nearshore rocky habitats and resources present (see Watershed Conditions).

Given the proximity of Blacklock Point to Cape Blanco, the local oceanography and rocky intertidal ecology here is unique as a result of the bathymetry off the Oregon coast. Cape Blanco has intermittent upwelling and therefore creates a zone of nutrient supply and cooler water in the warm summer months (Krenz et al. 2011, Fenberg et al. 2015, Menge et al. 2015), which allows for high recruitment and survival of algae and invertebrates.

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.

The proposed approximate site boundaries are shown in the site polygon included in this proposal and detailed above under Site Location and General Site Description. The scope of the proposed area includes the: (1) rocky upland, (2) rocky intertidal, (3) rocky shallow subtidal, and (4) subtidal parts of offshore rocks and islands, rock reefs and kelp beds, as follows:

(1) the geologically unique fluted sedimentary cliffs immediately adjacent and to the north of Blacklock Point *per se*, from the cliff base at or near the extreme high water line up to the vegetation line at or near the cliff top (Figs. 1 - 3), comprising the Rocky upland – rocky habitat area as defined below in the RHMS, p. 11:

"a. Rocky Shoreline–all rocky habitat between the statutory vegetation line described in ORS 390.770 and extreme low water (encompasses cliffs, tidepools, and rocky intertidal). These areas may be reached by foot from shore (regardless of hazard or convenience).

i. Rocky upland – rocky habitat area between the statutory vegetation line and extreme high water line. In unvegetated areas, this is delineated at the 16-foot elevation contour. "

(2) The rocky intertidal headlands, bedrock benches or platforms, boulder-cobble fields, tide pools and connected rocky intertidal substrates and habitats as defined below in the RHMS, p. 12:

"ii. Rocky intertidal – rocky habitat area between extreme high water line and extreme low water line. "

(3) The shallow subtidal (continuously submerged at all tidal levels) rocky substrates and habitats immediately adjacent to and offshore from the low intertidal zone to the – 5 meter depth contour, as defined below in the RHMS, p. 12:

"b. Submerged Rocky Habitat–all rocky habitat below extreme low water, out to the deepest limits of the territorial sea. This area includes submerged rocky reefs, shallow rocky subtidal, and other submerged rocky habitats."

and RHMS p. 59:

"c) Rocky Shallow Subtidal

This subtidal region, between extreme low water and the - 5 meter depth contour, is generally a geologic extension of rocky intertidal or cliff areas along the shore."

(4) Subtidal portions of offshore islands and rocks below the mean high water line, submerged rock reefs and kelp beds to the - 10 Fathom or ~ - 18M (60') depth contour.

"b. Offshore Rocks and Islands – any rock or landform within the territorial sea separated from the mainland at mean high water which remains above the surface of the sea at mean high water.

Site Access Information*

How is this site commonly accessed?

Blacklock Point is mainly accessible by an approximately 1.5-2 mile long foot trail (part of the trail network within FLSNA) from a trailhead just outside of the Cape Blanco State Airport security gate, at the end of Airport Road, which is 3 miles from Highway 101 at Pacific High School. The area can also be reached by foot via an approximately 2 mile long trail that starts at Boice-Cope County Park (Curry Co.) to the north. From the south, Blacklock Point can be reached by walking a short distance north along the beach from the mouth of the Sixes River, near the parking lot for the historic Hughes House in Cape Blanco State Park (this route requires a wet ford of the river, which is usually less than one foot deep near the mouth).

What is your understanding of current management at this site?*

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

Blacklock Point and North Sea Cliffs (BP, or Blacklock) are on the southwestern part of Floras Lake State Natural Area (FLSNA; formerly State Park), which is undeveloped. The Blacklock Point marine terrace uplands, North Sea Cliffs and ocean shores, including adjacent rocky intertidal area are owned and managed by OPRD under multiple statutes and regulations, including OAR 736-020, General Ocean Shore State Recreation Rules. Adjacent offshore submerged lands and marine plant resources are owned and managed by the Oregon Department of State Lands (ODSL) under authority of ORS 274. ODFW manages marine natural resources under multiple authorities, including OAR Chapter 635. Although not included within the scope of this proposal, exposed aerial or emergent portions of offshore rocks and islands above the mean high water line are owned and managed by the USFWS 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)). Intertidal and subtidal portions of offshore rocks and islands are managed as noted above by ODSL or ODFW.

It is important to note that the level of protections noted above, which are afforded by statute or law for the OPRD-managed site uplands and for the USFWS-managed refuge offshore appear to exceed the existing levels of protection for the adjacent rocky intertidal and nearshore subtidal areas in between, and that these dissimilar levels of protection across the landscape-seascape interface serve as an important justification for the BP MCA designation proposed herein, in order to balance and fill gaps in protection across the entire site. This, with associated proposed non-regulatory management measures, especially site stewards with monitoring, visitor engagement and enforcement-through-education for compliance functions, would allow for more even, consistent levels of protection, management, and information from the uplands, across the intertidal, to and including the offshore rocky subtidal habitat areas of the BP MCA.

Seabirds and Migratory birds using rocky habitats at the site are managed under USFWS authorities including the Migratory Bird Treaty Act (16 U.S.C. 703-712), the Fish and Wildlife Act of 1956 (16 U.S.C. 742a-j), and the Fish and Wildlife Improvement Act of 1978 (16 U.S.C. 742l). 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, while NOAA has responsibility for managing other marine mammals --pinnipeds including seals and sea lions, and cetaceans - whales and dolphins. Other management authorities include (but are not limited to) the Federal Endangered Species Act – ESA: 16 U.S.C. §1531 et seq., managed by USFWS and NOAA, and CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora), an international agreement between governments. ODFW authorities regulate fisheries. ODFW and NOAA regulate permits for scientific research and collection. The Clean Water Act of 1972 and the Oil Pollution Act of 1990 regulate marine natural resources protections and damages, and the latter may be placed at higher value in areas with special protection designations such as the MCA. Other state and federal management authorities for fisheries, other extractive activities, and coastal-ocean development are varied and too numerous to mention here (this information is available upon request). Other key stakeholders include the local communities, the Coquille Indian Tribe, the Confederated Tribes of Siletz Indians and other Tribal Nations as appropriate, visitors, commercial, charter and recreational fishermen, other site users, and nature-based tourism or other businesses.

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.

Site users include members of the Coquille Indian Tribe and the Confederated Tribes of Siletz Indians on the south coast. Most people use the site for recreation: local residents from Curry and Coos counties, including sport fishermen, tide poolers, the South Coast Striders regional hiking group, a yoga group, local Audubon members who birdwatch, conduct annual bird surveys as part of the nationwide Christmas Bird Count (CBC), and coastwide surveys of Black Oyster Catchers due to widespread population declines and nest failures, and visitors from many locations outside of the region.

Human non-extractive uses at BP include: sightseeing; hiking; picnicking; dog walking; tide pooling; plant and wildlife viewing; photography, bird watching; whale and other marine mammal watching; practicing yoga, kayaking, surfing, and; snorkeling. Information gathered from Curry County residents indicates that 59.1% of the population participates in beach activities and 46.7% of the population enjoys exploring tidepools (Rosenberger and Lindberg 2012). Horseback riding, bicycle riding, camping, drone flying, and walking dogs off leash are activities that have been observed on a number of occasions; although most of these are permitted at present, concerns have been raised about: disturbance of birds and wildlife by uncontrollable unleashed dogs; humans apparently unaware of their behaviors that disturb birds and wildlife; impacts on trails and rocky intertidal areas around tidepools; unauthorized camping, and; disturbance by drones of marine birds and wildlife. OPRD is now reviewing drone use for possible changes in policy regarding their operation (Mr. Chris Johnson OPRD Cape Blanco Management Unit, personal communication 11/19/2020).

Extractive uses include: traditional fishing and gathering of living cultural resources by members of the Coquille Indian Tribe, the Confederated Tribes of Siletz Indians and possibly other Tribal Nations, collecting mushrooms; beach combing; agate hunting; clamming; shore angling; small-scale personal harvest from

intertidal rocks of edible sea weeds and marine invertebrates such as mussels, and commercial fishing offshore in the general vicinity. Curry County residents enjoy fishing from a boat (22.2%) and from shore (22.7%) for non-commercial consumption. 16.8% of the population enjoys crabbing, and 13.6% enjoy clamming/shellfish harvesting (Rosenberger and Lindberg 2012).

We made several attempts to talk with commercial fishermen to share information, and to learn about their work and any possible concerns about the proposed MCA site designation, with only modest success to date. However, once informed about the proposed MCA and lack of new regulations or restrictions on existing site uses, any initial concerns or opposition were, in all cases, alleviated, and most individuals expressed interest, and at least tentative support. Besides fishermen themselves, the next best information on local fishing operations is from ODFW: The commercial Dungeness crab fishery, based mainly out of Port Orford and Coos Bay, occurs in soft bottom areas along much of the southern Oregon coast including the general vicinity of Blacklock Point. However, no observed vessel-based offshore fishing operations or crab pot sets have been observed -- within the proposed site polygon area, within one mile from shore, or inshore of the -60 foot depth contour -- during numerous visits over about 12 years, perhaps due to the prevailing rough sea conditions, offshore rocks and shallow shoal waters typical of the exposed outer coast at this location. In addition to the Dungeness crab fishery, it is possible that other fishing activity may occur at or near this site, including harvest of rocky intertidal invertebrates, and sport or commercial salmon fishing. There are recent reports of targeted collection by the restaurant trade of large intertidal limpets (snails) nearby in the Port Orford area; similar to abalone fishing (currently under ODFW moratorium) this activity should be closely monitored due to the slow growth, reproduction, and recruitment of these snails and the resulting potential for local overharvest, as well as the known overharvest and slow recovery of related limpets in other jurisdictions. ODFW could not definitely ascertain whether any fishing occurs within the proposed BP MCA boundary, or any change in fished stocks within the area. In any case we do not propose, recommend or support any fishing exclusions or restrictions whatsoever.

In fact, we view this proposal for a Marine Conservation Area (MCA) at Blacklock Point to be as much in support of fishing as conservation, because we could find no evidence of stocks being overfished in the area, and designation would serve to benefit fishing by protecting nearshore fish nursery habitats and those producing prey foods for fished species being targeted. Most of these areas are in shallow shoal water depths which most fishers (except for a few kayak or dive fishermen) do not utilize due to ocean safety concerns. The MCA designation would also serve to provide more awareness about the site, it's values and accepted uses. We understand that in the future ODFW may independently decide to change fishing regulations based on reasons or criteria unrelated to the proposed MCA designation, and that this may affect fishing at or near the proposed site.

There are no other commercial or scientific uses known at this time, although some scientific surveys were conducted in the past on the Blacklock uplands, mainly on their characteristic geology, soils, vegetation, and unique natural and cultural resources within the site uplands. In contrast, there is a considerable history of research activity at nearby Cape Blanco.

Site Infrastructure

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

Floras Lake State Natural Area (FLSNA) is about three miles from the Oregon Coast Highway (U.S. 101). FLSNA is almost completely wild and undeveloped in character, except for the network of trails (on what appear to be former logging roads). There is no other observed site infrastructure other than occasional trail signage, which is minimal. The unpaved parking areas in the vicinity of the main access trailhead to Blacklock Point are just south of the entrance to the Cape Blanco State Airport, and at the northern access at

Boice-Cope (Curry) County Park. No parking or other facilities are on OPRD land, based on currently available information. The trails are mostly within the boundary of the FLSNA except for the section around Floras Lake between the county park and the northern boundary of the FLSNA. The trail section, part of the Oregon Coast Trail, from the top of BP down to the beach is of substandard condition, and thus requires monitoring and future maintenance to prevent erosion damage or loss of access.

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.

It appears inevitable that visitor use levels will continue to increase considerably into the future. Potential future site uses, in the absence of changes to current site management, are not anticipated to change or differ appreciably from existing current uses as noted above, with some exceptions noted below under Impacts on Site Uses. Future uses also could include commercial nature-based tourism activities, scientific field work, proposed stewardship activities, and any other uses that do not pose threats or impacts to the area or its resources.

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?

Designating BP as an MCA with the proposed non-regulatory management measures will not impact existing and potential future permitted uses, unless future regulatory changes affecting uses are made which are independent of and unrelated to the proposed designation and non-regulatory management measures. New site designation would publically signal that the BP area has combined marine resources which are of such high value to Oregonians as to warrant protections conferred by this special rocky shores site designation, ones that will help ensure protection and maintenance of resource conditions and values for the long term future. New designation is likely to increase the public profile and awareness of the site, which could lead to increased visitation. However, with adequate volunteer stewardship of the area and increased information signage and programming, it is unlikely significant negative impacts would result from the designation. It is important to note that increased visitor use of the area is likely to result regardless of designation, so by making the area a MCA, an effective volunteer program would be established to get ahead of the curve and prepare for the inevitable increase in visitation and interest in recreation at Blacklock Point. So long as visitor behaviors and activities conform with applicable law, higher visitor levels are not expected to impact either human uses or resources, now or in the future. Implementing the proposed site-based volunteer stewardship program would enhance visitor awareness and compliance and thereby minimize threats and impacts to humans, uses, and resources. Based on available information at this point then, increased visitation would appear to be a net positive, particularly due to additional revenue contributions to the local tourism-based economic sector.

As mentioned above under Site Uses, some current uses have raised concerns about current or future impacts on resources and uses. These include horseback riding, bicycle riding, disturbance of birds and wildlife by humans and unleashed uncontrollable dogs, littering, camping, and drone flying. With the proposed new Marine Conservation Area site designation we are not recommending any restrictions on use of horses and bicycles to access coastal habitats, however, in efforts to balance human uses and resources conservation, as

part of the package of proposed non-regulatory management measures, we are recommending monitoring of the condition of the trail network for physical impacts since several trail sections traverse fragile soil types subject to erosion, many trail sections are inundated during the wet season, and some trail sections have at times been subject to rutting from bicycle traffic. As a result we recommend future adaptive trail repair and maintenance based on quarterly trail monitoring, all of which can be done by trained volunteer stewards. This is especially needed at the top of the sea cliffs, which are easily eroded, and where several social trails have been created that could lead to instability of cliff sections and related human safety hazards. In further efforts to balance human uses and resources conservation we also recommend design and placement near the trailhead of: (a) unobtrusive composting toilet facilities; (b) concrete anchored, bear proof trash and recycling containers, and; (c) signage that matches with the wild, undeveloped character of the site, to include: (1) a small map showing key site features, trails and walking distances; (2) a brief overview of the history, natural and cultural features of the site (without indicating locations of sensitive or threatened cultural or natural resources); (3) a notice to equestrians to not use hay or straw unless it is certified seed free, to prevent further introduction of Alien Invasive Species (AIS) of plants on the site uplands; (4) a notice requesting bicycle riders to not ride off trail and to avoid wet trail sections to minimize trail damage; (5) a brief summary of rules on allowed and unpermitted uses at the site; (6) a QR code posted on signage that would allow users to see an interactive map of the Marine Conservation Area on their smartphones, and follow a link to a centralized website where users can interactively view different rocky shores designations along the Oregon coast. This would show all the areas that are each type of designation and include detailed regulations for each area. To date, the only website we have found with comprehensive maps and information is eregulations.com. While camping on site is not officially permitted, in the past state parks staff have apparently allowed some Oregon Coast Trail (OCT) through-hikers to camp. Evidence of camping, both near and distant from the OCT, observed on several occasions indicates lack of compliance with Leave No Trace principles, including leaving trash, human feces and toilet paper. We recommend enforcement of existing no camping rules so that no camping be allowed in the future due to the fragile natural and cultural resources on site and to maintain the sites' wilderness character. We also recommend timely implementation of clear guidelines and policy regarding use of drones, currently being considered by OPRD, to prevent further hazing disturbance and other impacts to marine wildlife and birds at and near Blacklock Point and the north sea cliffs. This proposal recommends development, training and implementation of a volunteer stewardship program to assist and support OPRD in carrying out management activities on site into the future (e.g., monitoring, trail maintenance, visitor engagement, public education and interpretation, notifying visitors about compliance and safety issues, and cooperation and communication with law enforcement when all other visitor compliance measures have been exhausted, as a last resort).

In summary, we anticipate all positive and no negative impacts to current or future users or uses that comply with management policies or laws in force (no regulatory changes are proposed here). These, along with proposed non-regulatory management measures, are expected to result in no impacts to legal uses and reduced or no future impacts -- from camping, littering, trampling, or disturbance by humans, unleashed, uncontrolled (by owner voice command) dogs, or irresponsible use of drones -- to birds and wildlife using rocky coast habitats. Any possible impacts on users would affect a very small fraction of all users, who would not be permitted to camp where it is already illegal, but would be able to continue all other uses as long as these do not create threats or cause impacts to other visitors or resources. As such, the above recommended minimal changes to allowed human uses through non-regulatory measures is a balanced approach to maximizing both human uses and conservation of rocky habitat resources.

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).

The types and composition of rocky habitat present at the site is detailed above. Summarizing, this includes:
(1) rocky upland - the entire length of sedimentary high sea cliffs (and ancient marine terrace) to the north of Blacklock Point (Figs. 1-3), from their base up to the vegetation line;
(2) rocky intertidal - the intertidal rocky headland and boulders at and near the point itself (including those surrounded by patches of black sand beach), intertidal rocky platforms, benches, pools, boulder-cobble fields, and boulders composed of ancient, resistant metamorphic rocks, and including those composed of relatively uncommon Serpentine rock types;
(3) rocky shallow subtidal – subtidal parts of offshore rocks and islands below the mean high water line and rock reefs and shoals from the extreme low water line on shore to a depth of – 5 meters, and;
(4) subtidal parts of offshore rocks and islands below the mean high water line, subtidal rock reefs, shoals, and kelp beds out to their furthest offshore extent or the - 10 Fathom (- 18M [60']) depth contour, whichever is closest to shore.

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.).

Living Cultural Resources

Coquille Indian Tribal representatives have noted in addition to archaeological sites, the presence and use of diverse non-specified sensitive living cultural resources on the coast at BP.

Kelp Beds

There are several relatively small beds of canopy forming kelp, primarily Bull Kelp, *Nereocystis luetkeana,* included in the proposed site polygon. The appearance and size of surface canopy forming kelp beds varies greatly by season and from year to year, however long term trends indicate dramatic reductions in kelp bed canopy area over time, based on observations at Blacklock Point, elsewhere on the Oregon (and California) coasts, as well as data from aerial kelp canopy surveys done by or for ODFW (Merems 2011). Kelp beds are surrounded by subtidal rock reefs including shallow shoals, and patches of soft sediment benthic substrates. Kelps and kelp forests throughout Oregon, Northern California, and much of their range along the Pacific coast of North American have been under multiple threats and impacts (Rogers-Bennett and Catton 2019, Rumrill 2020a, b). These range from increased ocean temperatures due to marine heat waves and other oceanographic phenomena, and reduced nutrient availability, to increasing storm wave frequency and severity, and extreme overgrazing of kelp. Overgrazing, related to the heavy recruitment of purple sea urchins, *Strongylocentrotus purpuratus*, has resulted in many places in the near total loss of benthic macroalgae including kelps and most other fleshy seaweeds, and the formation in former kelp forests of large, high density urchin barren areas devoid of kelp (Schiel and Foster 2015, Rogers-Bennett and Catton 2019). The urchin population explosion has been exacerbated by the widespread die-off of sea stars (star fish), major predators of urchins, from the Sea Star Wasting Syndrome (SSWS) and lack of recovery to date of populations of several species of sea stars, particularly the large, multi-armed sunflower star, *Pycnopodia helianthoides. Pycnopodia* was recently (12/10/2020) listed as "Critically Endangered" on the Red List of the International Union for the Conservation of Nature (Table 1 and website link below). This new critically endangered status is based on: (1) a calculated 90.6% decline in their global population; (2) numerous surveys coastwide which estimated 5.75 billion animals have died from what is described as the largest known marine disease epidemic on record; (3) a complete lack of population recovery on the entire west

coast of North America, from Alaska to Baja California, Mexico in the 7 years since the disease outbreak began in 2013, and; (4) very few animals observed off the outer coasts of Oregon and Washington since 2018 (https://www.nature.org/en-us/newsroom/california-sea-star-endangered/?fbclid=IwAR36fsJgMQcNRc5xKsyDRDSsRQgHSkG4qmHMXO_QjraL4UEsQ59mmrugkrc).

Further, kelp forests and their inhabitants within the proposed BP site polygon have been under additional threat for a number of years due to local extreme turbidity events in the nearshore ocean (from shore to approximately one mile offshore) resulting from erosion, run off, and transport of soils from cleared land areas in the upper Sixes River watershed (Figs. 4, 5, Azhocar et al. 2008). The fine sediment fractions of these soils, once transported downriver into the nearshore ocean, either block light from, scour, blanket or bury the sea floor and benthic (bottom-living) animals and plants in the area during these conditions, and are known to have both sub-lethal and lethal effects on benthic plants and animals, and impacts on ecosystem goods and services based on studies done elsewhere (e.g., Kiest 1993, Foster and Van Blaricom 2001, Konar and Roberts 2009). These threats and impacts are detailed below under Watershed Conditions, and the upland cleared areas and large area of highly turbid water offshore from Blacklock Point are shown in photographs of the area (Figs. 4, 5).

Pinniped Haulout and Pupping Areas

We found no data on pinniped haulouts or pupping at Blacklock Point itself or on the offshore rocks and islands, except for a small amount of data indicating that Harbor Seals, *Phoca vitulina*, haul out on nearby Gull Rock (Brown 1988). We have made numerous observations throughout the year at various tide levels over approximately 12 years. These observations indicate use of on- and off-shore rocky habitats as haulouts by four species of pinnipeds within the site polygon. These pinniped species are (interspecific relative abundance, highest to lowest): Harbor Seal, *Phoca vitulina*; California Sea Lion, *Zalophus californianus,* Stellers Sea Lion, *Eumetopias jubatus,* and Northern Elephant Seal, *Mirounga angustirostris.* Young Harbor Seal and California Sea Lion pups have been sighted in most years. Pinniped numbers vary considerably: at times there are up to several hundred adult Harbor seals and California sea lions, while at other times numbers are in the tens of individuals or less; Steller Sea Lion adults have been seen only occasionally, and Northern Elephant Seals only rarely.

Seabird Colonies and Nesting Shorebirds

Seabird Colonies ranging in size up to approximately 1000-10,000 breeding birds have been documented within the proposed Blacklock Point MCA for the following species (Naughton et al. 2007):
Pelagic Cormorant, *Phalacrocorax pelagicus*
Unidentified Cormorant, *Phalacrocorax* sp.
Pigeon Guillemot, *Cepphus columba*
Western/Glaucous-Winged Gull, *Larus glaucescens*/ *L. occidentalis*/ *L. argentatus*
Common Murre, *Uria aalge*

Black Oyster Catcher, *Haematopus bachmani* is a USFWS shorebird species of concern due to declines in nesting pairs in southern Oregon, and coastwide, its dependence on rocky shoreline habitats, its rarity, and vulnerability to threats including climate change and human disturbance.

Presence of Threatened/Endangered/Protected Species/Species of Concern

Several species of concern, protected or listed species are known in, have a high probability of occurring at, or occasionally move through the Blacklock Point area (Table 1).

Rocky habitat biodiversity is detailed in the next section.

Flora and Fauna*

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

Rocky Habitat Biodiversity

The intertidal species diversity at Blacklock Point, just north of Cape Blanco, is extremely high due to the zone of upwelling mentioned elsewhere. (Krenz et al. 2011, Fenberg et al. 2015, Menge et al. 2015). Invertebrate species observed at Blacklock Point are abundant and span across many taxonomic groups. Characteristic species observed at BP include: Mussels (*Mytilus* spp.), Dogwhelk snails (*Nucella* spp), Ochre sea stars (*Pisaster ochraceus*), Gooseneck barnacles (*Pollicipes polymerus*), Acorn barnacles (*Balanus* spp.), Thatched barnacles (*Semibalanus* spp.), Buckshot barnacles (*Chthalamus dalli*), Purple sea urchins (*Strongylocentrotus purpuratus*), Green sea anemones (*Anthopleura* spp.), and many species of worms, isopods, amphipods, sponges, crabs, snails and other invertebrate animals.

There also are many species of red, brown, and green algae, and seagrass (a vascular plant) present which provide habitat for other intertidal and subtidal organisms. Species observed include but are not limited to: Iridescent Weed (*Mazzaella* spp.), Black Pine Seaweed (*Neorhodomela* spp.), Featherboa Kelp (*Egregia menziesii*), Bull Kelp *Nereocystis luetkeana*, Rockweed (*Fucus distichus*), Strap kelp (*Lessoniopsis littoralis*), Dwarf Rockweed (*Pelvetiopsis limitata*), Sea Cabbage (*Saccharina* spp.), Surfgrass (*Phyllospadix scouleri*), and Sea Lettuce (*Ulva* spp.).

Because an area of nearshore subtidal rocky habitats is included in our proposed site designation, data on the presence of specific fish species determined by the ODFW Nearshore Strategy (https://oregonconservationstrategy.org/oregon-nearshore-strategy/species/) is included. ODFW annual monitoring at Redfish Rocks (located about 13 miles south) or the Humbug Comparison area (about 15.5 miles south) identified the following species present in recent years: Striped perch (*Embiotoca lateralis*), Kelp greenling (*Hexagrammos decagrammus*), Lingcod (*Ophiodon elongatus*), Cabezon (*Scorpaenichthys marmoratus*), and 9 different species of Rockfish (*Sebastes* spp.). We can assume that these species are also present at BP due to the similar habitat types, marine connectivity, and proximity to Redfish Rocks and the Humbug Comparison area. Additional nearshore species may be present but data on subtidal fish is sparse for this site. The off-shore rocky subtidal area likely includes critical habitat important in the life cycles of the species listed above and others.

See Table 2. Species List for proposed Blacklock Point Marine Conservation Area (attached).

In extensive literature searches for relevant data online and at the OIMB library (including unpublished gray literature reports, raw data, and conversations with several local and other professional biologists) we found almost no marine species survey data sets, species lists, or relative abundance estimates for animals or plants (except for colonial nesting seabirds and some pinnipeds, above) within the proposed Blacklock Point MCA.

Although we found very little marine biological data collected at BP *per se*, species listed are: (1) those that are so common to southern Oregon rocky intertidal or subtidal communities that (based on strong inference and 4+ decades of experience and professional judgment) their absence at this site would be considered

highly improbable, and; (2) those species found at other rocky site(s) with similar habitats as close to this site as possible (e.g., in this case Cape Blanco, about 1.5 miles south of Blacklock Point, where PISCO has collected data on rocky intertidal species for several years, and either Orford Reef (6.9 miles south), Redfish Rocks (13 miles south) or the Humbug Comparison area (15.5 miles south), where biological data has been collected by or for ODFW in rocky subtidal habitats). Many of the species from other sites can be categorized as having a high probability of occurring in the Blacklock Point area because of the geographic proximity of the sites and the strongly inferred high connectivity between them due to ocean currents and dispersal between sites either by migrating adults or drifting planktonic larvae of invertebrates and fishes or spores of kelps and other seaweeds— early life stages common to most marine animals and algae.

Data on marine algae or seaweeds were obtained -- from gray literature reports, a few published literature sources, and surveys done -- at other sites as close as possible to Blacklock Point.

We obtained available data for marine invertebrates from a systematic bioblitz event that was conducted by numerous experienced professional biologists from the OIMB and other institutions nationwide at and in the vicinity of Cape Arago in 2019. We used these data to "bracket" species richness data elsewhere on the southern Oregon coast in the vicinity of BP, to provide a contextual framework in which to view species richness or composition derived for the Blacklock Point site. While the bioblitz was certainly not exhaustive or comprehensive and therefore could not record all species present, it nonetheless represents the highest rocky intertidal invertebrate species richness value found anywhere on the entire Oregon coast. To place site biological information in context, we derived an estimate of approximately 238 total species (marine algae, invertebrates, fish, birds, and mammals) at or near BP. This value is surely a considerable underestimate of both the total number of species present and the total number of invertebrate species present at BP, based on the fact that well over 800 marine invertebrate taxa were documented by the bioblitz in similar habitats in the vicinity of Cape Arago (31 miles north of Blacklock Point); this number does not include annelid worms and other animal groups, which, when enumerated, will likely bring the estimated total number of species of rocky intertidal invertebrates in southern Oregon to at least 1000. One can then reasonably extrapolate qualitatively that species richness for other taxa — particularly algae and fish — is also considerably underestimated (since these are either less familiar or more cryptic), while species numbers for birds and mammals are likely to be only slightly underestimated if at all.

To derive species richness (based on presence or probable presence) and relative abundance data (where possible), if, as is the case at rocky intertidal sites sampled by PISCO, density data exist for some species, we assumed the species is present and therefore must be included in the sites' species list. Different species are likely to occur at high, medium or low density(/abundance) at a site. Density data can, where appropriate, be "binned" into relative density/abundance categories (which are each defined). These density categories are on a relative scale, and may be qualitatively converted to a scale of relative abundance, e.g., high density (dominant or abundant); medium high density (common); medium density (occasional); low density (rare). If, as noted above, a species has a reasonably high probability of occurring at a proposed rocky site, even if based on occurrence at the most proximate site(s) or on professional knowledge, it should be listed as occurring at the proposed site and recorded as Present (or Probable - not observed at site but highly probable to be present there). If, as is the case for the vast majority of species, relative abundance data were not available or could not be estimated or derived, then species presence data only was recorded to estimate species richness.

Information for fishes, where available, was obtained from other sites in the area where ODFW has data from general subtidal surveys (e.g., using ROVs, camera landers, divers), and from data collected by the ODFW marine reserves monitoring program, including hook and line sampling, at site(s) as close as possible to Blacklock Point, including Orford Reef, Redfish Rocks and the Humbug Comparison Area, all to the south.

Data sources for birds include the 2018 Checklist to Birds of Curry County, Oregon, published by the Kalmiopsis Audubon Society (KAS). This list includes 403 species found in Curry County, to 200 miles offshore, during 53 years of documented sightings. This list was filtered to only include bird species likely to occur at or near rocky coast habitats. We also attempted to use survey data recorded at BP from annual KAS Christmas Bird Counts (CBCs) to present absolute and relative abundances for coastal and likely near coastal species, but were unable to obtain the raw data in time to meet the submission deadline for this proposal. We obtained some data on breeding seabird colonies near Blacklock Point from USFWS surveys (Naughton et al. 2007).

Data sources for pinniped populations and haulouts include surveys done for NMFS (Brown 1988). Data on other mammals come from our observations, online listings of species of concern, and from Maser 1998, as well as communications with Mr. Jim Rogers, a long-time local Forester and Natural Historian, and other locals who have been familiar with Blacklock Point for decades.

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.

There are a number of unique or special features at and near Blacklock Point. The wild, undeveloped, and remote location itself appears to be increasingly uncommon feature on the Oregon coast as development and visitation increases.

Geological landforms include the high fluted sea cliffs (Fig. 1, 2) composed of sedimentary rock, which comprise a marine terrace that supports the rare Blacklock soil type and an unusual and rare assemblage of land plants adapted to these soils and ones derived from Serpentine rock. Observations along the entire Oregon coast, review of the coastal geology literature, and speaking with a professional geologist suggest that the stunning sea cliffs are unique in Oregon and perhaps beyond. There is a high proportion of intertidal rock at the site composed of Serpentine minerals, relative to any other rocky area observed along the Oregon coast or the entire Pacific coast of North America. On land, serpentine-derived soils, derived from deep sea rocks, due to their chemical composition (including trace metals and toxic compounds) prevent all but specially adapted land plants from growing on them. It would be interesting to study whether serpentine rock has similar limiting effects on the establishment or distribution and abundance of marine rocky intertidal or subtidal organisms, many of which have settling larval or spore stages that can detect subtle characteristics of substrates, affecting where these organisms settle.

The Blacklock Point rocky coast has high beta or habitat diversity including intertidal bedrock, benches, boulder-cobble fields, vertical walls, tide pools, patches of black sand beach, and subtidal vertical rock walls, shelves, shoals, reefs, boulders, and mixed rock-soft sediment areas, as well as kelp beds and urchin barrens.

Blacklock Point has high biodiversity and productivity in part due to the fact that Cape Blanco, just to the south, is a major marine biogeographic transition point. This is characterized by longer periods of upwelling to the south, and shorter periods to the north (Broitman et al. 2008). Intermittent upwelling near Cape Blanco causes high biological productivity, which is critical for sustaining the diverse and unique ecology of the area (Krenz et al. 2011, Menge and Menge 2013).

Biological observations at the site indicate several distinguishing features, including: overall high biodiversity; seabird colonies; pinniped haulouts, and; a considerable number of species of special concern.

These include reduced numbers of Black Oystercatcher nesting pairs. Red abalone, *Haliotis rufescens*, the largest and most fecund of abalone species, have been observed in numbers so low that their reproductive potential is extremely limited due to low adult densities and high nearest neighbor distances reducing fertilization success because female and male gametes free-spawned by adults into the water column are unable to mix and fertilize. This and other life history traits shared by abalone species have contributed to greatly reduced numbers throughout their geographic range, fisheries closures in Oregon (and California), and Federal Endangered Species listings for two congeneric species, the white abalone, *Haliotis sorenseni* and the black abalone, *Haliotis cracherodii*. Flat abalone, *Haliotis walallensis* have very rarely been observed on the southern Oregon coast over many years, suggesting that this species is locally or ecologically extinct in the region. The rocky intertidal and subtidal areas at Blacklock Point otherwise have excellent habitat for abalone (L. Basch, pers. observations 1993-2020), and should be considered for inclusion in future efforts to restore abalone populations in Oregon, which would be necessary for reopening any fishery. This said, the prognosis for recovery of abalone populations hinges on the condition and recovery of their rocky habitats, particularly kelp forests, which are currently under multiple threats and impacts at this and other site(s), as noted under Watershed Conditions and elsewhere.

In part due to the proximity of streams near this location on the Wild Rivers Coast, several species have been either observed, e.g., river otters, or strongly inferred, e.g., listed salmon and sturgeon, to occur here at times with high probability. The proposed BP MCA also may be unique in that both river otters and threatened sea otters have been observed at different times to move through and forage in the same rocky habitats at Blacklock Point (L. Basch, pers. observations 2013-2020).

Values and Resources

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

Site values and resources are numerous, but are only briefly summarized here since these are detailed elsewhere in this proposal. Site values and resources include but are not limited to: undeveloped, wild character of the site; characteristic dramatic landforms (e.g., sea cliffs, marine terrace; high marine rocky habitat diversity; dramatic offshore rocks and islands); geology (mixture of Serpentine, metamorphic and sedimentary rock mineralogies, black sand beach, etc.); unique soils, vegetation, and natural and cultural resources within the site uplands; site-specific cultural values for and uses by the Coquille Indian Tribe and other south coast Tribal Nations including living cultural resources; nesting sea bird colonies; pinniped haulouts; kelp beds; high species richness, and; use of the site by several species of special concern (e.g., the federal and state threatened seabird, the Marbeled Murrelet, Black Oystercatcher, Peregrine Falcon, etc.). The area is interesting for its historical (rock quarrying, sheep ranching, logging), present and expected future human use values: sightseeing; hiking; picnicking; dog walking; tide pooling; plant and wildlife viewing and other natural history observations; photography; bird watching; whale and other marine mammal watching; kayaking; surfing; snorkeling; horseback riding; bicycle riding; drone flying; walking dogs; collecting mushrooms; beach combing; agate hunting; clamming; shore angling; small-scale sport harvest from intertidal rocks of edible sea weeds and marine invertebrates such as mussels, and; commercial fishing offshore.

A new or changed site designation will positively impact site values and resources. For example, a new site designation opens up opportunities for individuals and community groups to determine how best to protect these vital rocky shoreline resources and their uses. A new or changed designation can however have both positive and negative impacts. For example, a designation can increase public awareness of a place and its natural attractions, and a new site designation can itself be an attraction. A higher public profile is very likely to lead to increased visitation. Increased visitation could, in the absence of adequate signage and on site volunteer stewardship, public education, and compliance monitoring (proposed herein under non-regulatory

management measures) result in negative impacts to both human safety and resource conditions if or when visitor numbers overshoot the site carrying capacity, or irresponsible or unlawful human behaviors impact resources. Greater impacts also can occur both cumulatively over time, or when multiple impacts interact in combination or become synergistic. Such impacts may be delayed, or may require more time or effort to determine. On the other hand, increased visitation is virtually certain to happen regardless, given increasing visitor trends locally and globally, and would in any case positively contribute to the local south coast economy, as has occurred previously in Curry County with other nearby attractions (e.g., Cape Blanco Music Festival). New site designation would increase protections for the site rocky shore resources and values and allow for continued, sustainable human uses without new restrictions, by further developing and implementing a set of complimentary non-regulatory management measures, including increasing community sense of ownership of place by implementing a volunteer site stewardship program.

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.

Enforcement of and compliance with management measures has been a central consideration throughout the development of this site proposal, from recognition that existing management by OPRD, ODSL, ODFW, and USFWS, as prescribed by law appears adequate, yet implementation of compliance or education-enforcement and other measures is currently constrained by agency budget or personnel levels below those necessary to fulfill these management needs. It is largely for these reasons that we propose non-regulatory management measures including cooperation and partner building to support enforcement through compliance-education and other management needs via a volunteer site stewardship program and formal cooperation with community groups and individuals, the Coquille Indian Tribe and the Confederated Tribes of Siletz Indians, land, resource management and law enforcement agencies, funding organizations, NGOs, etc. Because similar programs (e.g., Haystack Rock Awareness Program, Makai Watch) have been developed and implemented in conjunction with local government or law enforcement, and proven to be highly effective and sustainable elsewhere we have confidence that we can use these programs and related resources (e.g., MOUs with government agencies, the Rocky Shores Communication Strategy 1995, Curry County State Parks Master Plan 2003, Northwest Aquatic and Marine Educators Oregon Coast Education Program, Coast Watch, SEA) as models and guidance to develop and implement a volunteer stewardship program at the proposed BP MCA.

At this time, mainly due to difficult physical access to and the absence of information during the pandemic, we are unable to estimate the cost to implement these non-regulatory changes in site management. However, since we propose to staff the program mainly with volunteers, we can reasonably expect that costs will be fairly modest. Once decisions are made on approval of site designation proposals, we will confer further with agency and other partners and pursue budget estimates and related information and actions, including seeking external funding (at least until such time as state budgets recover from current impacts due to the pandemic and economic conditions), to advance the volunteer stewardship program and other proposed non-regulatory management measures that support agency management needs.

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.

Changes necessary to enforce proposed management measures and thereby enhance current site management, protection, use, and enforcement include (but are not limited to):

(1) We propose to work as local community members and groups in cooperation with OPRD, OSP, and other appropriate agency staff, NGOs and other partners to support programmatic budget increases or within-budget or personnel time reallocations for more frequent resources and education-enforcement patrols and improved informational signage at the site.

(2) Along with this support we propose creation of a site-based volunteer stewardship program, as detailed in the following section on Non-Regulatory Management Mechanisms. Key to this stewardship program is building formal MOUs and working relationships with law enforcement and other agencies in the area so that appropriately trained volunteer site stewards can safely act as eyes and ears for law enforcement and call on their support when necessary as is done in similar programs elsewhere (Haystack Rock Awareness Program, Makai Watch). Where ever this proposal refers to enforcement by volunteer stewards, we mean visitor intercepts using education as the main enforcement tool, where visitors are engaged, informed about resource or safety conditions and threats and what responsible actions they can take to help protect people and site resources. In cases where human safety or resources are threatened or impacted by lack of visitor compliance with applicable rules and regulations, stewards would only contact beach rangers, park staff, or law enforcement agencies once education and related approaches (e.g., documentation) have been done safely and determined to be ineffective (However, stewards would immediately call for help in any emergency).

(3) Implementation of related elements in the Curry County State Parks Master Plan 2003.

Information on the estimated financial impact of this proposal is not currently available for reasons noted above, but will be pursued in cooperation with agency staff and other appropriate persons following final decision making on site designation proposals to develop grant proposals to offset any possible financial burden on state agencies. Actual and potential sources of programmatic and financial support are indicated below in the section Support for Management Mechanisms.

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?

We do not anticipate the need for any new regulations or changes in existing rules and regulations. Existing regulations appear adequate as written. However, conversations with OPRD, other state agency's staffs, and others in the region confirm the widely held impression that agency budget and personnel limitations severely constrain enforcement, stewardship and public education and outreach activities at and near this site

(and others), not to mention deferred maintenance of basic infrastructure such as trail beds. This is evidenced by seeing only one OPRD staffer working on site (removing downed trees across trails) during 4 -11 site visits/year over about 14 years. We propose non-regulatory management measures to work as local community members and groups in cooperation with OPRD and other appropriate agency staff to support programmatic budget increases or within-budget or personnel time reallocations for more frequent natural resources and enforcement patrols and improved informational signage at the site. Along with this support we propose the creation of a site-based volunteer stewardship program, as detailed in the following section on Non-Regulatory Management Mechanisms. Key to this stewardship program is building formal cooperative working relationships with law enforcement agencies in the area so that volunteer site stewards can be trained to safely act as eyes and ears for law enforcement and call on their support when necessary. We anticipate no negative impacts and only net positive impacts on state and federal agencies (e.g., OPRD, OSP, ODFW, ODSL, USFWS, U.S. Coast Guard), from the proposed non-regulatory management measures.

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?

The proposed site and site-based non-regulatory management measures improve upon and fill gaps in management policies and objectives not addressed by coastwide (or site-specific) regulations or management in the following way. As mentioned in more detail elsewhere in this proposal, OPRD and other agencies coastwide are currently (and are projected in the future to be) understaffed and agency budgets are insufficient to fully implement or enforce existing policies, plans, or laws affecting resources at the site. The proposed site-based management measures will create formal cooperative relationships with agency staff that will increase capacity and allow management actions to be fulfilled by a trained volunteer labor source working with and under the direction of agency site managers and staff.

The situation concerning upland soil erosion (Azhocar et al. 2008), runoff into the nearshore ocean, and impacts to marine life (see (Figs. 4, 5 and Watershed Conditions, below) is not specific to the local watershed in which the site occurs, however the magnitude of the problem at this site may be more severe than elsewhere on the Oregon coast. Either a local or coastwide approach can be taken starting with meetings between the appropriate agencies, landowners, and stakeholders to identify the problem upland area, upland land management practices, and solutions. Volunteer site stewards can serve to monitor and document related nearshore ocean conditions in an effort to begin to ameliorate threats and impacts in marine rocky habitats. Lessons learned from this local issue can be shared and applied coastwide to fill information and solutions gaps wherever similar problems may exist.

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.

The proposed BP MCA designation goal and objectives can all be met with non-regulatory management measures. Non-regulatory management measures proposed include, but are not limited to:

(1) Designing and installing improved but as minimal as possible informational signage near the main trailhead(s) (adjacent to the Cape Blanco state airport, and perhaps on the trail just south of Floras Lake at the boundary with the Floras Lake State Natural Area), to match the undeveloped "near wilderness" characteristics of the site (placing signage elsewhere, including Blacklock Point itself, is widely regarded by community members as detracting from the wild, undeveloped character of the site and hence unacceptable);

(2) Developing a community sense of ownership by creating a site-based volunteer stewardship program to train and support rocky coast stewards to:
(a) educate visitors on responsible, safe uses of the site;
(b) inform visitors of inappropriate, unsafe, or illegal behaviors;
(c) if necessary, communicate with resource protection, local law enforcement or OSP officers concerning potential public safety issues or illegal activities threatening or impacting resources;
(d) provide educational/interpretive intercepts for the public about the natural and (with content guidance from the Coquille Indian Tribe and the Confederated Tribes of Siletz Indians) cultural features and resources on site, and;
(e) conduct monitoring of site and resource conditions, and assist with infrastructure (trail) maintenance.

"Using Partnerships to Implement Site Goals" and "Providing interpretation and other information resources at Blacklock Point for visitors" are general management measures not requiring regulations and are called for in the Curry County State Parks Master Plan 2003, p. 59. A coastwide shoreline interpretative program is called for in the state's Rocky Shores Communications Strategy (1995) and elsewhere. The many advantages of a coastwide rocky habitat stewardship program include: creation of uniform quality messaging content and interpretive materials, consistent steward training coastwide; considerable economy of scale, wherein one coastwide stewardship program can develop and implement combined coastwide and site-specific program standards and elements for multiple rocky coast sites regardless of their new or changed designation type, and; the ability to convey both general coastwide and site-specific information to visitors. Reinventing the wheel is not necessary because similar programs are long-standing, sustainable, highly effective, and successful, and serve as models for the rocky coast stewardship program proposed here. These models include the Haystack Rock Awareness Program at Cannon Beach, Oregon (https://www.ci.cannon-beach.or.us/hrap) and Makai (toward the ocean) Watch in Hawai'i (https://dlnr.hawaii.gov/makaiwatch/). Realizing that stewards cannot always be on site, we propose a cost effective technical solution(s) (easily concealed to prevent vandalism) to monitor site conditions and uses that would fill gaps in observation capacity when no agency staff or stewards can be on site.

(3) Adaptive modification of the Memorandum of Understanding (MOU) between the Haystack Rock Awareness Program or Friends of Haystack Rock at Cannon Beach and local government and appropriate law enforcement agencies, to develop a similar MOU for implementation at and for Blacklock Point.

(4) Work in cooperation with government agencies, officials, the Coquille Indian Tribe, the Confederated Tribes of Siletz Indians, and other Tribal Nations as appropriate, other stakeholders, and external funding sources (NGOs, etc.) to develop budget or personnel time reallocation proposals, budget justifications, and sustainable long term external funding sources for a Blacklock Point Coastal Stewardship program.

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.

The existing community volunteer-based coastal stewardship programs on the southern Oregon coast, Shoreline Education for Awareness (SEA) and the CoastWatch (CW) program are long-established, operational, and highly effective. SEA trains and fields volunteer interpreter-stewards at two sites in Coos County – Simpson Reef Overlook at Cape Arago State Park and at Coquille Point in Bandon. SEA also maintains a presence in Curry County, serving as the Friends group for the Crook Point unit of the USFWS Oregon Islands National Wildlife Refuge. CoastWatch, a statewide organization, is a mile-by-mile shoreline adoption program in which volunteers periodically patrol and report on a section(s) of the Oregon coast. Discussions with SEA (https://sea-edu.org) and Coastwatch (https://oregonshores.org/coastwatch/overview) indicate that both of these organizations are preadapted and poised to serve key roles in developing and fielding a combined coastwide and site-specific volunteer rocky coast stewardship program, since these organizations have been successfully training and fielding volunteers to perform interpretation, stewardship, monitoring, public or resource protection roles on the coast for many years. Both programs have expressed interest in playing a role in developing and implementing such a coastal stewardship program, but cannot fully commit to this until such time as rocky habitat site designations are approved and funding opportunities begin to materialize.

Based on preliminary research to date, potential entities or funding sources to sustainably support proposed rocky coastal stewardship and related NRMM efforts include: The Ford Family Foundation, The Gordon and Betty Moore Foundation, Oregon Community Foundation, Oregon Coast Visitors Association, Travel Oregon, the Coquille Indian Tribe, the Confederated Tribes of Siletz Indians, The Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians, the U.S. Fish and Wildlife Foundation, the Oregon Conservation and Recreation Fund, Wild Rivers Coast Alliance, the Audubon Society, and several others. Support for signage at other coastal sites has been provided by ODOT and the Oregon Coast Visitors Association (OCVA); we would pursue similar support. Upon notice of final approval of the Blacklock Point Marine Conservation Area site designation we will initiate cooperative efforts with agencies, government officials, local community groups and individuals, partner organizations with experience in coastal stewardship, funders, and others to pursue sustainable funding for a Blacklock Point and Coastwide Coastal Stewardship program. We are hopeful that when state budget forecasts improve, funds can be allocated to creating a sustainable structure for this program to ensure the long term success of a coordinated coast-wide interpretive program, whether solely government supported, in the form of a public-private joint venture, or entirely through external funding.

In addition, considerable non-monetary in-kind or matching support is present in the form of existing volunteer pools; established coastal curricula for public education, outreach and interpretation, and; plans, standard operating procedures and guidance, including memoranda of understanding for an established coastal volunteer stewardship program (Haystack Rock Awareness Program/Friends of Haystack Rock, CoastWatch, etc.). Non-Monetary support includes, e.g., the Rocky Shores Communication Strategy (1995) developed for the Oregon Coastal Management Program, ODLCD. We anticipate additional in-kind support for coastal marine education program curricula and elements from the Charleston Marine Life Center of the University of Oregon, Oregon Institute of Marine Biology and The South Slough National Estuarine Research Reserve Education and Coastal Training Programs, all based in Coos County, as well as; The Oregon Coast Aquarium, and; the Hatfield Marine Science Center of Oregon State University. These resources, along with the Northwest Aquatic and Marine Educators (NAME) chapter of the National Marine Educators Association (NMEA) share information and education materials focused on marine and aquatic environments and issues. Their Oregon Coast Education Program's (OCEP) mission is: To create, support, and inspire an international community of marine and aquatic educators throughout the Pacific Northwest. OCEP's Coastal Education Modules provide curriculum and activities appropriate for a wide age range of

learners (K-12, adult), for hands-on learning about Oregon's coastal ecosystems and their connections to Oregonians living throughout the state.

There are other local potential sources of volunteer coastal stewards in addition to SEA and CW. Blacklock Point is on the Wild Rivers Coast and local rivers enter the coastal zone (Sixes River is 1.5 miles south of and visible from Blacklock Point). As such the region is a series of coastal frontal watersheds with clear linkages and influences between the coastal communities, uplands and coastal habitats, including rocky intertidal and subtidal areas nested within coastal watersheds. Locals have strong ties to and many uses of coastal areas, including rocky sites. As a result we are confident that the memberships of the Wild Rivers Land Trust, Coos Watershed Association, Curry Watersheds Partnership, Kalmiopsis (Curry County) chapter of the Audubon Society, Surfrider Foundation Blue Water Taskforce volunteers, Salmon Trout Enhancement program volunteers, ORCA - Oregon Coast Alliance, Port Orford Senior Citizens center, teachers, students and student organizations in Port Orford-Langlois area schools, the Floras Lake neighborhood, the South Coast Striders regional hiking group, and other local individuals and community groups can serve as important sources of volunteer coastal stewards/educators.

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.

Letters of support are attached below under Additional Materials.

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 started sharing information with the public in 2019 about anticipated updates to the Rocky Habitat Management Strategy on CoastWatch and other partner websites, Facebook pages and newsletters. Outreach intensified in 2020 to include public meetings and webinars, featuring public listening and Q & A sessions, some with Rocky Habitat Working Group members and state agency representatives. Several educational and informational webinars about rocky habitats were broadcast between June and December.

In spite of the pandemic, some in-person socially distanced meetings occurred with south coast stakeholders in Coos and Curry counties including residents in the Blacklock Point and Floras Lake area, community groups, other interested parties and partners in the south coast communities of Coos Bay, Charleston, Bandon, Langlois, Port Orford, Gold Beach, Pistol River, Brookings-Harbor, and elsewhere along the Oregon coast. Initial meetings included tourism business owners, restaurant business owners, watershed council board members, teachers, scientists at OIMB, independent researchers, USFWS staff, and others. These meetings resulted in a number of individuals and groups providing important input and feedback on which south coast rocky habitat sites to consider for possible new or changed designations, and helped to spread the word about the RHMS update process through their communications, including newsletters, websites, and social media accounts. Coos and Curry County Watershed Associations, Coos Bay Surfrider chapter, Kalmiopsis and Cape Arago Audubon Societies and others shared our informational sheets,

invitations for webinar and public meeting events, as well as opportunities to write letters in support of designation of specific sites.

As a result of outreach, a South Coast Rocky Shores Group was formed and a Facebook page was created under this name to highlight rocky habitats on the south coast and to continue to inform and invite south coast stakeholders to participate in the RHMS update and site designation process. During summer 2020 rocky coast sites began to be recommended for designation by south coast residents in Coos and Curry counties who also provided local and scientific knowledge including important site facts, critical species information, and initial information on site uses and threats.

In the summer of 2020, as part of ongoing outreach CoastWatch emailed a survey to over 900 volunteers coastwide (see outreach activities document attached) asking which south coast rocky shores were special to them and why. This survey did not name the sites that had already risen to the top through earlier outreach but interestingly, Blacklock Point, one site that had already been recommended by others, received more suggestions and comments than any other site. This confirmed the previous support to submit a proposal to designate Blacklock Point as a MCA.

Starting in early fall 2020, CoastWatch and South Coast Rocky Shores Group continued outreach, received additional feedback and were invited to present on the RHMS and proposed south coast sites to many south coast groups and individuals, along with other site proposers like Shoreline Education for Awareness and PISCO. Meaningful discussions and/or recurring meetings occurred with the following: Floras Lake area neighbors group, Coos and Curry watershed councils, Kalmiopsis and Cape Arago Audubon Societies, leaders of Coos Bay Surfrider, The Oregon Energy Alliance Network and Shoreline Education for Awareness. A conversation with a representative from the Oregon Energy Alliance Network resulted in questions being answered about the proposed boundaries at Blacklock and how these might affect any future energy development.

As proposals began to be written, communications increased with community stakeholders resulting in text sections that were incorporated into this proposal. Notably as a result of this ongoing outreach, Langlois residents and neighbors at nearby Floras Lake expressed a desire to support a Marine Conservation Area designation with non-regulatory management measures by acting as stewards to educate the public about intertidal ecology and Floras Lake State Natural Area rules (and beach rules in general) and thus prevent tide pool degradation or other impacts by uninformed visitors.

Zoom meetings were held with representatives of the Coquille Indian Tribe (CIT) including cultural and natural resources staff, and phone meetings occurred with current and past leaders and representatives of the Confederated Tribes of the Coos, Lower Umpqua and Siuslaw Indians (CTCLUSI) to discuss, answer questions, and address concerns about the proposed BP MCA and to learn about the cultural significance of the Blacklock Point area. These discussions resulted in relevant and critical additions to this proposal and future collaborations are planned where Tribal representatives will advise on content and wording about cultural resources for interpretive signage, and conduct, or provide information or learning materials for cultural resource training for volunteers who have expressed interest in acting as stewards at Blacklock Point. Proposals were also shared with the Coquille Indian Tribe, and sincere efforts continue to communicate with the Confederated Tribes of Siletz Indians. We plan to continue our outreach after this proposal is submitted.

Sincere efforts are ongoing to meet with members of the Oregon Dungeness Crab Commission and several other area fishermen from Charleston to Brookings-Harbor. A commercial fisherman from Port Orford Sustainable Seafood (POSS) attended one of our public meetings on December 15th 2020 to ask for clarifications about the Blacklock proposal and appeared satisfied with the proposed site boundary polygon (attached) and explanation of the proposed non-regulatory management measures; he also seemed reassured

that a former commercial fisherman is a core part of this proposal writing team. Another local fisherman out of Port Orford expressed initial concern (see Feedback from Stakeholders below) about the proposed designation, which was alleviated when he learned we are not proposing new regulations or restrictions on fishing and other legal uses. We are continuing to reach out to share information about the RHMS and proposed designation at Blacklock Point with fishermen, encouraging them to share information with other fishers, and for anyone interested to contact us to learn more, ask questions, or share concerns.

An op-ed piece was sent to south coast newspapers in October but it has not yet been published to our knowledge. Press releases to all newspapers of record in Curry and Coos counties, and social media posts with meeting notices were distributed in advance of online public listening sessions held in November and December.

This Blacklock Point MCA proposal has considerable support from those we have had conversations with, those who have attended public meetings in the last six months and those who have responded to repeated outreach. Notable is the support we have from groups and individuals who use the site on a regular basis for recreation, exercise, and solace.

We have received no opposition to this proposal to date.

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 or concerns voiced regarding this proposed change in site management/ designation.

The stakeholder feedback on this proposal received thus far has been overwhelmingly positive and supportive. In a few cases, some individuals initially had concerns or were outright opposed, however, after talking together, when their questions were answered and concerns addressed, these few individuals' concerns were alleviated, and they were no longer opposed. The main comments and concerns received about this proposal to date are reflected in the following:

"Blacklock is a world class natural attraction on the land and the ocean sides. We need to keep it that way and encourage ecotourism and other things there that will contribute to our local economy." (this can be accomplished by proposed non-regulatory management measures).

"We don't want any more rules, regulations or restrictions on what we do there" (we propose only non-regulatory management measures and no additional rules or restrictions on existing uses).

"No way can I support this place as a Marine Conservation Area if I'm kept out of fishing offshore of Blacklock, it would mean poverty for me and my family" (we do not propose or support any restrictions on existing site uses, including commercial fishing, and are not proposing any restrictions or regulations beyond those now in place).

"Blacklock Point is currently "Not Yet Designated" in the Oregon Rocky Habitat Management Strategy, yet it is a unique place of ecological importance and wonder with a history of scientific and management attention for potential conservation of the uplands. The area was first recommended for protection by the state Natural Area Preserve Advisory Committee in 1978, and has been a high priority for protection ever since, because it is one of the most unique and significant natural areas in Oregon. The same is true for the adjacent rocky shore and offshore areas because of the diverse rocky intertidal habitats, subtidal rocky reefs,

kelp beds, seabird colonies, shorebird nesting areas, pinniped haul outs, and other marine species of concern."

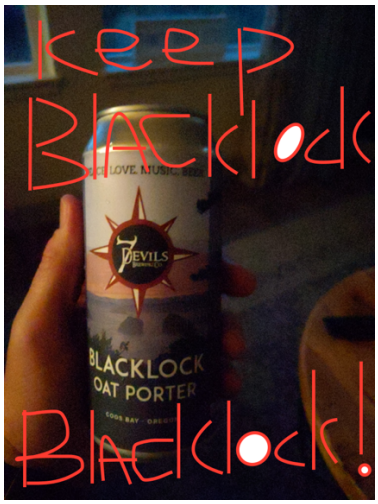
"Blacklock Point rocky marine habitats deserve to be designated as part of the Rocky Habitat Management Strategy. Broad cliffs, a black sand beach, rock benches and tide pools are accessible by a short hike from a parking area. Here, one can watch numerous species of seabirds and shorebirds including Brown Pelicans, large numbers of Surf Scoters and White-winged Scoters. Blacklock Point is considered one of 31 Important Ecological Areas in Oregon as documented in a 2005 report by Oceana. The rocks are home to Black Oystercatcher nests, a shorebird species of concern that uses rocky intertidal habitats almost exclusively to forage. Pelagic and Brandt's Cormorants and Pigeon Guillemots also live on the nearby rocks and utilize the intertidal area. A critical snowy plover area exists on the beach. Visitation to Blacklock Point is increasing, as more and more people flock to the coast to experience nature. The 2020 pandemic brought more visitors than ever recorded along the Oregon coast, including the south coast. As we look to the future, we can prepare and safeguard this wild place while also sharing it with everyone."

"Will I still be able to: fish," "collect mussels," "walk my dog" … (yes to these and all other current legal uses).

"There are so many more visitors going there now and some out-of-towners are not respecting the place, leaving trash, feces, and TP, and people, drones, or off-leash dogs are harassing seals and sea birds down on the rocks, which I'm pretty sure is illegal. Will proposed management changes help resolve these problems?" (yes, these and other resource threats or impacts would be addressed as part of proposed non-regulatory management measures).

"Put in new information signs, maybe a pit toilet near the trailhead, maintain the trails, but please don't develop the park anymore!" (all are proposed as part of non-regulatory management measures).

"Will we still be able to access the tidepools the same ways?" (yes).



(this comment came in without attribution or other information)

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).

Through social media, organizational newsletters, educational webinars, in-person meetings, public Zoom meetings, brochures, personal emails and phone calls, the South Coast Rocky Shores Group and CoastWatch have been providing consistent information about the RHMS update process and proposed south coast rocky habitat areas to a broad range of individuals on the south coast and elsewhere including a number of tribal members, nine state agency staff members (ODLCD, OPRD, ODSL, ODFW), local business owners, community groups (e.g., Rotary, Surfrider, Audubon) three USFWS staff (one now retired), several local business owners including a charter fishing operation, local government officials and politicians, commercial and sport fishers, bird watchers, surfers, kayakers, conservationists, researchers at OIMB – Oregon Institute of Marine Biology, etc.

Written communications included development of several informational public presentations with photographs and maps, hundreds of individual emails, mass emails to members of the two local Audubon Society groups (Kalmiopsis Audubon chapter in Curry County, Cape Arago Audubon chapter in Coos County), the Coos Bay chapter of the Surfrider Foundation, the Coos Watershed Association, the Curry Watershed Partnership, and other groups. Other written communications include updates on the RHMS and related south coast proposed site designations on the websites of Coastwatch, and Kalmiopsis Audubon Society, in the latter's newsletter "The Storm Petrel." In addition we have engaged numerous times in writing and videoconferences about proposal technical and scientific issues with members of the Rocky Shores Working Group, Tribal representatives, NGO and state agency representatives, and with other individuals or groups coastwide who are developing site designation proposals or are partners or stakeholders assisting with related communications. These include SEA, PISCO, Lincoln City Audubon and the North Coast Rocky Habitats group.

We engaged in person on many occasions with both local residents and tourists visiting Blacklock Point, including individuals and groups hiking and horseback riding, a yoga group, and others.

We also have created and distributed site-specific informational brochures about the RHMS and proposed site designations (see outreach materials attached).

Some webinars/meetings were recorded and are available on YouTube:
https://www.youtube.com/channel/UCmfpsfd5mRUoKbnpIZ6COZQ/videos

A brief summary of meetings we have (co-)hosted include:

- RHMS Update Process Q & A #1 with guests Charlie Plybon, Dave Fox, Michael Moses and Roy Lowe (CoastWatch in partnership with North Coast Rocky Habitats and Audubon Society of Lincoln City) – 6/17/2020 (31 attended, available on YouTube)

- RHMS Update Process Q & A #2 with guests Charlie Plybon, Dave Fox and Michael Moses (in partnership with Audubon Society of Lincoln City and North Coast Rocky Habitats) – 6/24/2020 (25 attended, available on YouTube)

- On the Rocks with Roy Lowe presenting about the history and photography of the Oregon Islands National Wildlife Refuge (CoastWatch in partnership with Audubon Society of Lincoln City) – 6/10/2020 (61 attended, available on YouTube)

- Numerous meetings either in person or via Zoom with south coast residents, business owners and non-profit leaders for the purpose of outlining the RHMS, discussing candidate sites for possible designation, gathering scientific and visitor data and local knowledge, and recruiting volunteers to help with proposals. – August and September 2020

- Zoom meetings or phone calls with members of the Coquille Indian Tribe and CTCLUSI to share information and receive feedback on proposed site designations - November and December 2020

- The South Coast Rocky Shores Group hosted or co-hosted four online public information meetings and Q and A sessions via videoconference on the RHMS and south coast sites proposed for new site designations. These include:

  - Curry County residents living near and interested in Blacklock Point (Floras Lake Neighbors) to present and discuss proposed site designation - 10/29/2020 (6 attended)
  - Coos Bay Surfrider/Cape Arago Audubon joint meeting along with Shoreline Education for Awareness to present proposed site designations – November 11, 2020 (27 attended)
  - RHMS and proposed south coast site designations Listening Session hosted by Port Orford Field Station (in partnership with PISCO) – November 13, 2020 (13 attended)
  - Public meeting to present RHMS update and proposed site designations in Curry and Coos counties. In partnership with PISCO and Shoreline Education for Awareness. - December 15, 2020 (20 attended)

Below is a sampling of events and posts created by CoastWatch and the South Coast Rocky Shores Group related to rocky habitats and the RHMS. The South Coast Rocky Shores Facebook page was created specifically for this campaign and will continue into the future. Many other posts were created by CoastWatch on the Oregon Shores FB page and Instagram page.

- South Coast Rocky Shores FB page - https://www.facebook.com/southcoastrockyshores
- CoastWatch FB page - https://www.facebook.com/OregonShoresCW
- Oregon Shores FB page - https://www.facebook.com/OregonShoresCC

https://www.facebook.com/southcoastrockyshores/photos/a.150346499934298/216555956646685/
https://www.facebook.com/events/684837139089532/
https://www.facebook.com/events/729645501270845/
https://www.facebook.com/OregonShoresCW/photos/a.1207365216053293/3306790536 110740/
https://www.facebook.com/OregonShoresCW/photos/a.1207365216053293/3178600238929771/
https://www.facebook.com/OregonShoresCW/photos/a.1207365216053293/3136353479821114/
https://www.facebook.com/OregonShoresCW/photos/a.2200847343371737/2970495386406925/
https://www.facebook.com/OregonShoresCW/photos/a.1207365216053293/2929896950466769/
https://www.facebook.com/events/582399556040437/
https://www.facebook.com/OregonShoresCW/photos/a.2200847343371737/2789222941200838/

Since July 1, the CoastWatch Facebook page has run 13 posts, with 1,872 views, 212 engagements, and 53 likes. The Oregon Shores Facebook page has run 18 posts on RMHS topics, with a total of 3,713 views, 262 engagements, and 125 likes.

Coos Watershed Association included RHMS in their newsletter and also on FB in September/October 2020
https://www.facebook.com/cooswa/photos/a.10150796064912783/10158883697972783

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?

In addition to our collective local knowledge as long-time area residents and site users, we have shared information with and learned from many individuals and groups with local knowledge of site features, resources, uses, management history, threats, or impacts, starting with descendants of some of the first site residents and users – Coquille Indian Tribe representatives with expertise and knowledge of site archaeology and living cultural resources. Long-term observations of OPRD staff presence on site, numbers of visitors, and their activities at the site are also based on local knowledge. Input based on local knowledge of this site led us to create proposed site boundaries and NRMM that optimally serve the needs of residents, Tribes, anglers, beachcombers, visitors, and other site users.

Additional local knowledge sources include state agency staff, a former state park ranger who worked at the Cape Blanco Management Unit which includes Blacklock Point, neighbors in the vicinity of Blacklock Point, long time, and more recent residents of Coos Bay, Charleston, Bandon, Langlois, Floras Lake, Port Orford, Gold Beach, and Brookings-Harbor, who, as local users of the site have collective local knowledge of the site spanning decades. Local knowledge shared by these individuals includes, but is not limited to, natural history observations, observed human uses, impacts to natural resources including sea birds, wildlife and plants living on or using the sites' rocky habitats, trampling of intertidal organisms, poaching of same, leaving trash, human, and pet wastes, running uncontrollable dogs off leash that have resulted in disturbance of shore and sea birds and pinnipeds, direct hazing disturbance by humans or AUVs (drones) which constitute illegal "takes" of species of concern or state or federally protected species using rocky habitats on site including: Black Oystercatchers, Peregrine Falcons, Bald Eagles, Harbor Seals, and California Sea Lions.

A site-specific impact based on both local and scientific knowledge (see next question) concerns land use practices in the upland watershed of the nearby Sixes River. Indeed, this impact is a major impetus for including subtidal rocky habitats as part of this site proposal. See Figs. 4, 5 and Watershed Conditions below for details on these significant impacts to nearshore marine rocky habitats and resources.

Other human uses, threats and impacts to the sites' rocky habitats based on local knowledge are documented under appropriate headings in this proposal.

Scientific Knowledge

How does this proposal incorporate scientific knowledge?

This proposal has incorporated scientific knowledge throughout its development wherever appropriate. This includes: consulting and seeking advice, information, unpublished reports and data from biologists, ecologists, fisheries scientists, geologists, resource managers, and others in several state and federal agencies with jurisdiction on the southern Oregon coast, including: ODFW, OPRD, ODLCD, ODSL, DOGAMI, USFWS, the Coquille Indian Tribe, academic scientists including an oceanographer, biologists, and a marine birds and mammals specialist at the University of Oregon Oregon Institute of Marine Biology (OIMB) and Oregon State University Hatfield Marine Science Center researchers, graduate and undergraduate students. We worked with amateur and professional biologists, including former science teachers and a retired university professor and staff member to obtain data on invertebrates, algae, birds and mammals.

We have done wide-ranging scientific literature searches at the OIMB library and using the University of Oregon Libraries and associated system's online search resources and document delivery services. We also have shared knowledge from these and other sources with individuals and groups in several coastal communities, including others working on proposals for designation of rocky shore sites coastwide.

We have cooperated with University of Oregon OIMB biologists who conducted an intertidal bioblitz in 2019 with several other colleagues at various institutions including the Smithsonian Institution, Washington, D.C., L.A. County Museum of Natural History, Washington State University, and the University of Florida, as well as ODFW staff, OSU PISCO staff, students and interns, independent researchers, Audubon, and others to obtain information on rocky habitat marine species richness (composition), distribution, and (where available) abundance.

Lastly, our group has gained local and scientific knowledge from members with diverse experience including a marine ecologist with 40 years of field work, teaching, consulting, and advising on rocky intertidal, kelp forest, and other subtidal benthic communities, nearshore fisheries, larval ecology, coastal oceanography, and marine resources management along the coasts of Oregon, California, Washington, SE Alaska, and elsewhere, a retired commercial fisherman, and a former state park ranger.

Goals and Policies

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

This proposal addresses most all goals and policies of the RHMS as follows. The main goal of the strategy "aims to be a coordination and adaptive planning framework focused on the long-term protection of ecological resources and coastal biodiversity within and among Oregon's marine rocky habitats, while allowing appropriate use." (RHMS p.1).

We address this goal and its objectives through further adaptive development and planned subsequent implementation of a set of non-regulatory ecosystem based management measures proposed herein, to: maintain, protect, or restore rocky habitats and biological communities; implement a holistic management program through site designations and non-regulatory management actions that allows for enjoyment and use of rocky habitats while protecting them from degradation and loss; enhance appreciation and foster personal stewardship of rocky habitats through education, interpretation, and outreach; improve our knowledge and understanding of rocky habitat ecosystems by fostering monitoring and scientific study; facilitate cooperation and coordination among local, state, and federal resource management agencies, community stakeholders and partners, the Coquille Indian Tribe, and representatives of other tribal governments, to ensure that marine resources and habitats are holistically managed (RHMS p. 1).

Further, we recognize that a collaborative, coordinated effort between agencies and stakeholders in the community increases the likelihood of success and decreases the need to add laws and authorities for any individual management agency. We developed the proposed non-regulatory management measures cooperatively and collaboratively in discussions with stakeholders and agency representatives and using state agency documents in order to achieve adaptive, holistic ecosystem-based management of rocky coast resources without restricting human uses. Following RHMS management principles we have incorporated public educational, awareness, citizen and community science and monitoring, and outreach programs as integral parts of proposed local site management, where practicable, because an informed and aware public is critical to protecting rocky habitat resources and carrying out the goals, objectives, and policies of the RHMS.

The non-regulatory management measures proposed here directly reflect RHMS management principles and policies, including the following RHMS policy statements:

"It is essential for the continued ecological functioning and well being of Oregon's rocky habitats that visitors interact responsibly in these areas. Fostering a culture of stewardship of rocky habitat resources will help protect the ecological, cultural and economic resources of Oregon's rocky coastline. Targeted messaging, including information on ways that individuals and groups can take action to positively affect

these rocky habitats is crucial." The proposed set of non-regulatory management measures have at their core these (and other) RHMS principles, policies and specified education actions.

The non-regulatory management measures proposed here are fully compatible with and supportive of RHMS policies, which are required for rocky habitat management; these policies, in turn, have been crafted to ensure consistency with state goals and priorities. Proposed management measures were designed to align and integrate closely with the stated RHMS policy: "Oregon's rocky habitats, in the broadest definition, are unique and carry coastwide importance ecologically, economically, culturally, and recreationally. The Rocky Habitat Management Strategy recognizes the importance of these interconnected habitats and the resources within them regardless of designation or recommendation. Therefore, this strategy recommends management actions that protect ecological values and biodiversity within and among Oregon's rocky habitats while allowing appropriate use."

Specific ways in which this proposal addresses, supports, incorporates, or integrates RHMS policies include:

Development of a site-based stewardship program as part of proposed management measures to increase awareness, interest, and support to conserve marine resources and ecological functions for the purpose of providing long-term ecological, economic, and social values benefits, consistent with Statewide Planning Goal 19.

Protection of rocky habitat resources (i.e. living marine organisms and their habitat) are prioritized over development of non-renewable ocean resource uses in the proposed management measures.

Education about rocky habitats will be fostered through the implementation of RHMS principles by the site-based stewardship program and other proposed measures.

Public access is unchanged by the proposed non-regulatory management measures, which do not affect agencies' authorities to create temporary emergency or non-emergency access restrictions at individual rocky habitat sites based on science or management decision rationale, when necessary, to ensure visitor safety, ensure resource and habitat protection, and to manage for user conflicts.

The proposed MCA designation and associated management measures developed herein are consistent with and support standards for designations described in the RHMS Section D ROCKY HABITAT SITE DESIGNATION STANDARDS & PRACTICES, which "shall apply to activities occurring in rocky shore habitats, and be incorporated by managing agencies into administrative rule or site management practices."

In community discussions on what the most appropriate designation type might be for BP, we eventually decided on a Marine Conservation Area (MCA) designation for various reasons including the fact that this designation under the RHMS allows the most flexibility in determining adaptive management strategies and future human uses that best match site resources with their protection needs, while continuing to allow all existing legal visitor uses, without need for new rules or regulations. We chose not to pursue a Marine Garden (MG)/Marine Education Area designation for Blacklock Point because, practically speaking, the location is not amenable to easy access by school or public educational groups, given the walking distance (about 3 miles round trip) required to get from parking areas to the rocky coast, which would be a disincentive for many. We determined that a Marine Research Area (MRA) designation would not be appropriate at this time either, since there is no known current or planned marine research, inventory or monitoring activity at this site by others. Further, under the RHMS a MCA designation would leave open future opportunities for both marine education and research. In addition, nearby Cape Blanco is being proposed as an MRA, and biological information from marine research or monitoring at this or other sites can be applied to Blacklock Point (where little such information has been collected), as has been done in this

proposal in order to provide information on species with a high probability of occurring at Blacklock Point.

Discussions with staff from several agencies and organizations indicate that, while agency policy dictates they cannot officially advocate or support for the proposed non-regulatory management measures within this MCA designation framework, they agree with the need for, effectiveness of, and likelihood of success of these proposed management measures, and state that these have tacit written agency support in documents such as the RHMS, the Territorial Sea Plan writ large, Curry County State Parks Master Plan 2003, the ODLCD Oregon Coastal Management Program's Rocky Shores Communication Strategy 1995, etc.

The proposed non-regulatory management measures all strongly support and are consistent with several other specific RHMS policies, including:

Development of agreements (like the proposed MOU) for cooperation between volunteer stewards, agency, and law enforcement personnel for long-term conservation of rocky habitats and organisms;

Managing agencies' education and information efforts for visitors to rocky habitat areas be conducted in a manner consistent with site-based management recommendations, Statewide Land Use Planning Goal 19, and education actions outlined in RHMS Section A.5.b;

Harvesting, gathering, or scientific collection of marine plants and animals in rocky habitat areas, where allowed, shall be conducted in a manner that minimizes impacts and disturbance to habitats or other organisms;

Marine development activities, not currently managed by a specific part of the Territorial Sea Plan, that cause significant adverse effects or permanent impacts to the form or function of submerged rocky habitats, or the fisheries dependent upon them, are prohibited;

Proposed management actions consider adaptation and resilience to climate change, ocean acidification, and hypoxia effects on rocky habitat ecosystems, in accordance with relevant state action plans, guidance, or policy;

The policy to foster and promote research and monitoring, compatible with the Rocky Habitat Management Strategy, including effects of climate change, ocean acidification, and hypoxia will be addressed in the monitoring section of an eventual comprehensive stewardship plan for the site, as part of the set of proposed management measures, however, pursuing an ambitious research agenda is currently not within the scope of these;

As part of our ongoing scoping, outreach and research efforts in developing this proposal, in compliance with RHMS policy, we are communicating with representatives of the Coquille Indian Tribe, continuing to reach out to other tribes on the south coast to ensure they are aware of proposed management measures and any action that may affect rocky habitat areas, to insure any impacts of management actions to cultural resources in rocky habitats are absent, minimized or mitigated (as determined by the State Historic Preservation Office). In conformance with RHMS policy, management measures in this proposal will not affect hunting and fishing consent decrees or other agreements between the State of Oregon and any Oregon federally recognized tribe.

The proposed management measures also are in agreement with RHMS policies regarding: harvest of marine aquatic vegetation, which is prohibited except as regulated by state agencies for appropriate recreational, scientific, restoration, and educational use, and; development activities occurring with marine aquatic

vegetation must have no significant adverse effects to the marine aquatic vegetation or its habitat. If "development activities within or near an area" are determined to include land clearing and related forest road building or maintenance, the latter policy may extend and be applied to significant adverse effects of land use practices within the upper watershed causing erosion and sedimentation that is impacting kelp forests and other marine vegetation and rocky habitats present at the Blacklock Point site (see Watershed Conditions, below).

Watershed Conditions

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

The site uplands were once used for logging, Christmas tree harvesting, sheep grazing, and riding ORVs. The rocky coast was historically quarried for stone for building materials. The area surrounding FLSNA is dominated by cranberry farms, Cape Blanco State Airport, Boice-Cope County Park, and rural homes. A new golf course has been proposed nearby, however it remains doubtful if this or other developments will be permitted because of strong community opposition. Further from FLSNA within the watershed there are sheep and cattle ranches, cranberry and vegetable farms, orchards, industrial logging operations, a state fish hatchery, sport, charter, and commercial fishing, and other local businesses, small coastal towns and dispersed rural residences. The impacts of land use practices on marine habitats and resources at and near Blacklock Point is detailed below.

Industrial logging has occurred within the Sixes River drainage for many decades, to recent times (Fig. 5). While we value the contribution of the timber industry to the local communities and economy, a long-term, significant, unmitigated impact from forestry practices in the upper Sixes River basin is the heavy and uncontrolled erosion and mass wasting of soils with precipitation following clearcutting, particularly on steep slopes (Azhocar et al. 2008). On several occasions, over years to recent times, extremely large volumes of eroded soils have been observed to slump or run off down southern valley slopes or small tributaries from clear cuts into the Sixes River and out its mouth into the nearshore ocean (Fig. 4).

While this almost certainly directly impacts salmonids and other local anadromous fishes including lamprey and sturgeon, and their riparian spawning and rearing habitats (Murphy 1995), it has been documented that this runoff has been manifested in large, dense sediment plumes that move downriver under most flow conditions, which can last for days. These sediment plumes are transported by downriver flow and eventually exit the Sixes River mouth -- which is 1.5 miles south of and visible from, Blacklock Point -- and enter the nearshore coastal ocean littoral cell. This heavily sediment-laden fresh water has a prolonged residence time (several days to weeks) in the nearshore ocean, where it is held near shore by oceanographic fronts parallel to shore that act as temporary barriers to movement of inshore water masses. This is shown in Fig. 4, where a distinct, persistent "mud line" at the front is evident offshore from Blacklock Point. The position of the mud line varies somewhat but typically extends alongshore from the north side of Cape Blanco, north approximately 5 miles to the area offshore from Floras Lake, and from the shoreline to approximately one mile offshore. While trapped onshore by fronts, the muddy "chocolate milk" fine sediment-laden fresh water initially floats on and near the surface, since fresh water is less dense than seawater, but is often rapidly mixed down to the sea floor by winds, Ekman transport, tides and currents, depending on prevailing local conditions.

While suspended in the water column the fine sediments result in significant turbidity, which has various impacts, including decreasing available light in the water column and on the bottom, which reduces or eliminates photosynthesis of phytoplankton, and other primary producers including seagrasses and many types of algae, including kelps. Suspended sediments also clog the filtering feeding and respiratory mechanisms of numerous suspension feeding benthic invertebrates and other animals, including many of

their critically important early life stages such as feeding larvae in the water column. The highly concentrated fine sediments suspended in this onshore water mass typically settle to the sea floor after a few days to a week of calm conditions. Once settled, the sediments create a "mud blanket", from approximately 1 millimeter (thin) to several centimeters thick (heavy), or completely bury areas on the bottom as well as bottom-living or benthic animals and seaweeds, including bed-forming kelps with surface or subsurface canopies. The sediment blanket causes sublethal effects on benthic plants and animals, and sediment burial results in the death of benthic organisms. These phenomena have been observed by an experienced coastal-marine ecologist off Blacklock Point within the site polygon for this proposal, from the low intertidal to at least 10-15 meters depth on subtidal rock reefs, surrounding offshore rocks and islands, and within kelp beds. The effects on nearshore benthic ecosystems of sediment plumes from upriver is considered to be similar and analogous to the effects of coastal landslides, as has been documented off the Big Sur coast of central California (e.g., Kiest 1993, Foster and Van Blaricom 2001, Konar and Roberts 2009).

Consequently, a key justification for designating this site as a Marine Conservation Area is to support all applicable protections for subtidal rocky habitats to allow their recovery from the multiple interacting calamities at various scales that kelp forests and other rocky habitats have and will continue to be impacted by into the foreseeable future, and the restoration of their ecological resilience and critical ecological goods and services. The recovery and maintenance of these critical subtidal rocky habitats cannot be achieved without the protections, including enhanced awareness and monitoring, afforded by the proposed MCA site designation, which can hopefully be brought to bear and have a positive impact on land use management in this watershed that will improve forestry practices and eliminate soil erosion and runoff and the downstream effects of these in the nearshore ocean. It may seem absurd that cutting forests on land heavily impacts local kelp forests. Our objective here, consistent with the RHMS, is to support improved upland forestry practices that will result in improved conditions for and recovery of kelp forests and other impacted habitats and resources, and thereby allow for sustainable economic benefits from both land and sea forests to our local economy.

Existing Protected Areas

Are there any other overlapping protected areas within the site?

Yes, OPRD owns and manages the site uplands as a State Natural Area, and owns and manages the ocean shore coastwide. The offshore rocks and islands within the proposed Blacklock Point site polygon are under the jurisdiction and management of the USFWS Oregon Islands National Wildlife Refuge down to the mean high water tide line. ODSL owns and manages the submerged lands and marine plants below the mean high water line out to the offshore boundary of the State of Oregon Territorial Sea, however there are no other known overlapping designated protected areas within the site besides the USFWS refuge. A goal of this proposal is to establish consistent, high, seamless levels of protection and effective management across existing and proposed protected areas, to span the diverse habitats, organisms and resources within the entire proposed MCA, from the uplands, across the intertidal, to the offshore area.

Site Characteristics

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

Most site and adjacent area characteristics have been previously described in appropriate sections throughout this proposal.

Blacklock Point is proximate to Cape Blanco, which provides some protection to the proposed BP MCA from southerly winds and swells.

Additional Designation Rationale

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

An overall rationale for this proposed designation is to establish consistent, seamless levels of protection and effective management across the sites' existing and proposed protected areas, to span the diverse rocky coast habitats, organisms and resources within the entire proposed MCA. While the isolated nature of the proposed MCA provides some degree of natural protection, the addition of the MCA designation will help ensure a higher level of protection for this exceptionally high-quality coastal-marine ecosystem. Other reasons and justifications for this BP MCA designation are detailed throughout this proposal.

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, we do not see a need to evaluate this proposal in conjunction with any other. This said, a proposal for a Marine Research Area designation at nearby Cape Blanco is being developed by OSU PISCO, a partner of ours. While our groups are discussing or cooperating on different parts of our respective proposals, they are for the most part independent from one another, and we do not see a reason to evaluate these two proposals in conjunction with one another, besides the fact that the two proposed sites are spatially close to one another and are linked ecologically due to close proximity, effects of Cape Blanco on regional oceanography, and highly probable movement between the sites of marine species, whether as adults, or as early life stages (embryos, larvae, spores) transported in currents.

Additional Information

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

Additional information here includes: Acknowledgements, Bibliography, Lists of Figures and Tables, and a Glossary of terms and abbreviations.

Acknowledgements

We sincerely appreciate the opportunity from the State of Oregon for south coast communities and residents to propose this rocky habitat site for MCA designation. We thank the many community members, Coquille Indian Tribe and other Tribal Nation representatives, groups, businesses, agency staffs, Rocky Habitat Working Group and OPAC members for their cooperation, professionalism, information or technical support provided throughout this process.

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Glossary of Terms and Abbreviations used in this proposal.

AUV Autonomous Unmanned Vehicle (drone)
BP Blacklock Point
CAAS Cape Arago Audubon Society
CBC Christmas Bird Count
CW CoastWatch Program
DOGAMI Department of Geology and Mineral Industries
EFH Essential Fish Habitat
FLSNA Floras Lake State Natural Area
HAPC Habitat Area of Particular Concern
HMSC Hatfield Marine Science Center
KAS Kalmiopsis Audubon Society
MCA Marine Conservation Area
MOU Memorandum Of Understanding
NAME Northwest Aquatic and Marine Educators
NGO Non-Governmental Organization
NMEA National Marine Educators Association
NMFS National Marine Fisheries Service
NRMM Non-Regulatory Management Measures

OAR Oregon Administrative Rules
OCEP Oregon Coast Education Program
OCVA Oregon Coast Visitors Association
ODF Oregon Department of Forestry
ODFW Oregon Department of Fish and Wildlife
ODLCD Oregon Department of Land Conservation and Development
ODOT Oregon Department of Transportation
ODSL Oregon Department of State Lands
OIMB Oregon Institute of Marine Biology
OPAC Ocean Policy Advisory Council
OPRD Oregon Parks and Recreation Department
ORKA Oregon Kelp Alliance
ORS Oregon Revised Statutes
OSP Oregon State Police
OSU Oregon State University
PISCO Partnership for Interdisciplinary Study of Coastal Oceans
RHMS Rocky Habitat Management Strategy
RHWG Rocky Habitat Working Group
ROV Remote Operated Vehicle
S.E.A. Sea Education for Awareness
SSWS Sea Star Wasting Syndrome
TSP Territorial Sea Plan
UO University of Oregon
USC United States Code
USFWS U.S. Fish and Wildlife Service

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.

Additional materials attached to this proposal include: the proposed site polygon, five figures (photographs) in one pdf, two data tables, outreach communication documents in one pdf, and Stakeholder Correspondence in one pdf.