



DEPARTMENT OF
ECOLOGY
State of Washington

Draft Programmatic Environmental Impact Statement

*Draft Marine Spatial Plan for Washington's
Pacific Coast*

October 2017
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Publication and Contact Information

This report is available on the Department of Ecology's website at <https://fortress.wa.gov/ecy/publications/SummaryPages/1706028.html>

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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October 12, 2017

Dear Interested Parties, Jurisdictions, Tribes and Agencies:

Enclosed for your review and comment is the Draft Programmatic Environmental Impact Statement (EIS) for the Draft Marine Spatial Plan for Washington's Pacific Coast (MSP), prepared by the Washington State Department of Ecology (Ecology) under the State Environmental Policy Act (SEPA). An interagency team developed the Draft MSP as directed by the State Legislature and state law (RCW 43.372). The Governor tasked Ecology with leading this planning process.

The Draft EIS evaluates the actions contained in the Draft MSP, which are intended to inform the development of new ocean use proposals along Washington's Pacific Coast and to be used in all stages of decision-making to protect ocean resources and current human uses from adverse impacts arising from potential new ocean uses. This environmental review provides a formal process to evaluate the proposed actions in the Draft MSP. The process helps decision makers and the public understand the specific actions and how they would affect people and the environment.

The Draft EIS evaluates the actions in the Draft MSP, including:

- Delivering baseline data, trends, and analyses.
- Improving consultation and coordination.
- Outlining project-specific information requirements.
- Protecting fisheries and Important, Sensitive, and Unique Areas.
- Providing spatial recommendations for state waters.

A No Action Alternative is also included, which is intended to represent the most likely future expected in the absence of implementing the MSP. Under the No Action Alternative, new ocean uses would only be evaluated using existing state policies and procedures.

Ecology requests public comments October 12 through December 12, 2017. The Final EIS will address all comments received on the Draft EIS received during the public comment period. Ecology plans to issue the Final EIS in 2018.



Interested Parties, Jurisdictions, Tribes and Agencies

October 12, 2017

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You can submit comments on the Draft EIS in several ways:

Online

<http://ws.ecology.commentinput.com/?id=pRHjQ>

By mail

Jennifer Hennessey
Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

In person

November 1, 2017, 6:00 p.m.
Department of Natural Resources:
Olympic Region Conference Room
411 Tillicum Lane
Forks, WA 98331

In person

November 7, 2017, 6:00 p.m.
Grays Harbor College
Manspeaker Building: Room 2250
1620 Edward P Smith Drive
Aberdeen, WA 98520

November 8, 2017, 6:00 p.m.
Cranberry Museum
2907 Pioneer Road
Long Beach, WA 98631

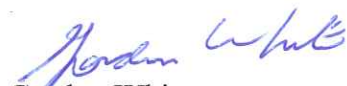
November 9, 2017, 6:00 p.m.
Tukwila Community Center
12424 – 42nd Ave. S
Tukwila, WA 98168

For further information regarding this Draft Programmatic EIS, please contact:

Jennifer Hennessey
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Thank you for your interest in the Draft Marine Spatial Plan.

Sincerely,



Gordon White
Program Manager
Shorelands and Environmental Assistance Program
Washington State Department of Ecology

Fact Sheet

Project Title

Marine Spatial Plan for Washington's Pacific Coast

Brief Description of Proposal

The Washington State Department of Ecology (Ecology) prepared this Draft Programmatic Environmental Impact Statement (EIS) to evaluate the environmental impacts of adopting a Marine Spatial Plan for Washington's Pacific Coast. Ecology is the lead agency and prepared this Draft EIS in compliance with the Washington State Environmental Policy Act (SEPA).

The SEPA nonproject action is the adoption of the Marine Spatial Plan (MSP) for Washington's Pacific Coast. The Draft EIS evaluates the proposed actions in the MSP, which provides a framework for evaluating proposed new ocean uses on Washington's Pacific Coast. The proposed draft MSP includes:

- Baseline information on existing ocean uses and resources.
- Guidance for siting and evaluation of new ocean uses, including identifying requirements and recommendations that apply to different phases of project review, consistent with existing laws and regulations.
- Policies for the protection of important and sensitive ecological areas and existing uses.
- Improvements to coordination among governments and with stakeholders.

The No Action Alternative is the only alternative included in the Draft EIS and represents the most likely future conditions expected in absence of a MSP. This includes evaluating new ocean uses under existing authorities and processes.

Contact

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Permits, Licenses, and Approvals Required

Numerous regulations, plans, laws, and treaty obligations guided or influenced the development of the MSP and Draft EIS. Because this is a programmatic EIS for a nonproject action, and the specific nature of potential new ocean use projects is not yet known, it is not possible to present a complete list of permits, licenses, and approvals that could be required. However, the Marine

Spatial Plan provides important information in Chapter 1 on tribal treaties and federal management areas in the MSP Study Area and Chapter 4 (specifically Chapter 4.1) describes existing state and local regulations and authorizations.

Implementation of the alternatives in the Draft EIS would require compliance with regulations and plans at federal, state, and local levels. A project proponent would need to comply with applicable laws, regulations, and Executive Orders. Examples of those requirements that are commonly associated with developments and activities in marine waters and shorelines, include:

- State Environmental Policy Act
- National Environmental Policy Act
- Coastal Zone Management Act
- Clean Air Act
- Clean Water Act - Sections 401, 402, and 404
- Endangered Species Act
- Energy Policy Act
- Federal Power Act
- National Historic Preservation Act
- Magnuson-Stevens Fishery Conservation and Management Act
- Oil Pollution Act
- Outer Continental Shelf Lands Act
- Sanctuary permit (Olympic Coast National Marine Sanctuary)
- Section 10, Rivers and Harbors Act
- Submerged Lands Act
- Aquatic Use Authorization for state-owned aquatic lands
- Washington State Hydraulic Code
- Washington State Shoreline Management Act
- Governor's Executive Order 05-05: Archeological and Cultural Resources
- Water Right Permit
- Sand and Gravel General Permit
- Construction Stormwater General Permit
- Building Permit
- Local critical areas codes, zoning ordinances, and other land use requirements

Federal planning and management efforts in the MSP Study Area, which may require federal permits or authorizations:

- Olympic Coast National Marine Sanctuary
- National Wildlife Refuges
- Olympic National Park – coastal unit

Authors and Contributors

The EIS writing and evaluation team included:

- Washington Department of Ecology: Jennifer Hennessey (EIS and MSP project manager) and Brian Lynn (Coastal and Shorelands Section Manager)
- Washington Department of Natural Resources: Katrina Lassiter (Policy Analyst)
- Washington Department of Fish and Wildlife: Corey Niles (Coastal Marine Resource Policy Lead) and Jessi Doerpinghaus (Coastal Marine Resource Policy Analyst)

A number of other contributing authors and reviewers from state and federal agencies, tribes, academic institutions, and stakeholder interest groups participated in the development of the draft MSP.

Date of Issue

October 12, 2017

Public Comment on the Draft Programmatic Environmental Impact Statement

Ecology is conducting a public comment period from October 12 to December 12, 2017, in accordance with Washington Administrative Code (WAC) 197-11-455. All comments on the Draft EIS received during the public comment period will be addressed in the Final EIS, planned for issuance in Date. Comments on the Draft EIS can be submitted in the following ways:

Online:

<http://ws.ecology.commentinput.com/?id=pRHjQ>

By mail:

Jennifer Hennessey
Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

In person

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November 9, 2017, 6:00 p.m.
Tukwila Community Center
12424 – 42nd Ave. S
Tukwila, WA 98168

Timing of Additional Environmental Review

The analysis in this EIS is programmatic in nature and has been prepared to disclose probable significant adverse impacts associated with adopting and implementing the MSP. Any individual ocean use projects or activities that are proposed or carried out will require additional, more detailed, project-level environmental review prior to implementation. These projects and activities could require SEPA compliance, National Environmental Policy Act compliance, or both, depending on the location of the proposal and/or types of permits required.

Document Availability

The Draft EIS for the Marine Spatial Plan is available online at:

<http://www.msp.wa.gov/learn/resources/>

or

<https://fortress.wa.gov/ecy/publications/SummaryPages/1706028.html>

Print copies or CDs of the document may be obtained by written request to Kaye Brozina, kaye.brozina@ecy.wa.gov, or by calling (360) 407-6908. Persons with hearing loss can call 711 for Washington Relay Service, including TTY service. Persons with a disability can call 1-866-833-6341 to access a Communications Assistant with Washington's Speech-to-Speech service.

Location of Background Materials

During the past several years, Ecology has coordinated a team of state agencies and worked with a wide range of experts to collect information on the MSP study area through a number of individual projects and studies. Ecology and the interagency team has collaborated with residents, stakeholders, tribes, and other agencies to develop a draft MSP that will protect existing sustainable uses and ocean resources while providing for new economic opportunities. The Draft EIS builds off this work. Background materials used in the preparation of the Draft EIS are available online through the following links:

- Marine Spatial Plan Documents: <http://www.msp.wa.gov/learn/resources/>
- Marine Spatial Planning Projects: <http://msp.wa.gov/msp-projects/>
- SEPA register: <https://fortress.wa.gov/ecy/separ/Main/SEPA/Search.aspx>

The Draft EIS also includes a list of environmental documents incorporated by reference and relevant studies.

Draft Programmatic Environmental Impact Statement

Draft Marine Spatial Plan for Washington's Pacific Coast

*by
Jennifer Hennessey*

Shorelands and Environmental Assistance Program
Washington State Department of Ecology
Olympia, Washington

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Executive Summary

Proposals for new ocean uses are on the rise, raising the potential for increased conflict and impacts to ocean users, communities, and marine habitats and species. Washington's Pacific Coast has experienced unsuccessful proposals for offshore renewable energy that were not guided by upfront information and plans addressing these potential impacts. The Marine Spatial Plan provides information and a framework for guiding and responding to the challenges posed by new ocean uses.

The Washington State Department of Ecology (Ecology) prepared a State Environmental Policy Act (SEPA) Draft Programmatic Environmental Impact Statement (EIS) for the Draft Marine Spatial Plan for Washington's Pacific Coast (MSP). An interagency team developed the Draft MSP as directed by the State Legislature and state law (RCW 43.372). The Governor tasked Ecology with leading this planning process.

The Draft EIS evaluates the actions contained in the Draft MSP, which are intended to inform the development of new ocean use proposals along Washington's Pacific Coast and to be used in all stages of decision-making to protect ocean resources and current human uses from adverse impacts arising from potential new ocean uses. This environmental review provides a formal process to evaluate the proposed actions in the Draft MSP. The process helps decision makers and the public understand the specific actions and how they would affect people and the environment.

Washington's Pacific Coast

Washington's Pacific Coast is rural and less developed than other coastal areas of the state. Coastal communities in this area are dependent on natural resources, recreation, and tourism. The marine waters along Washington's Pacific Coast contain abundant natural resources and diverse habitats that support biological diversity and resilience of the marine ecosystem. These ocean resources support multiple public uses that benefit the economies and cultures of nearby communities as well as the entire state such as fishing, recreation, shipping, shellfish aquaculture, tourism, and military training.

The MSP Study Area consists of marine waters of the Pacific Ocean from ordinary high water on the shoreward side out to a water depth of 700 fathoms (4,200 feet) offshore and from Cape Flattery south to Cape Disappointment at the Mouth of the Columbia River. It covers approximately 480 nautical miles of coastline and spans 5,839 square nautical miles (7,732 square statute miles). The Study Area includes two large coastal estuaries, Grays Harbor and Willapa Bay. The MSP Study Area overlaps with marine areas managed by federal agencies and Usual and Accustomed Areas of the four coastal treaty tribes.

Purpose and Need

New ocean uses pose the potential to adversely impact existing uses, ecological resources, and communities. Multiple uses, and new uses, also constitute a management challenge for

sustaining resources and coordinating state decision making in a proactive, comprehensive and ecosystem-based manner.

To address challenges posed by new ocean development, Washington needs to provide a framework for guiding and evaluating proposed new ocean uses on Washington's Pacific Coast. Developing a Marine Spatial Plan (MSP) provides opportunity to ensure that new ocean use developments are appropriately sited such that existing activities and new development can successfully coexist, while maintaining a productive, healthy marine ecosystem.

The draft MSP encourages protection of existing uses, cultural resources, and marine resources when new ocean uses are proposed and evaluated. It details the effects to people, communities and the environment that need to be evaluated and identifies ways that adverse effects can be avoided and minimized. It also identifies ecologically sensitive or unique areas that require protection and establishes protections for fisheries. Therefore, the Marine Spatial Plan will avoid and minimize significant adverse physical changes to the environment and people from new ocean uses.

Alternatives

The Draft EIS evaluates the actions in the Draft MSP, including:

- Delivering baseline data, trends, and analyses.
- Improving consultation and coordination.
- Outlining project-specific information requirements.
- Protecting fisheries and Important, Sensitive, and Unique Areas.
- Providing spatial recommendations for state waters.

A No Action Alternative is also included, which is intended to represent the most likely future expected in the absence of implementing the MSP. Under the No Action Alternative, new ocean uses would only be evaluated using existing state policies and procedures.

The Draft EIS also evaluates cumulative impacts, including past, present, and reasonably foreseeable future actions. This Draft EIS does not evaluate the environmental impacts of particular new ocean use proposals. This type of analysis would be done when a specific project is proposed.

Next Steps

The analysis in the Draft EIS identifies and assesses the possible environmental effects associated with the No Action Alternative and the actions in the Draft MSP. The SEPA environmental Review process helps decision-makers and the public understand how a proposed action would affect the natural environment and people, and provides a way to evaluate the possible environmental effects of a proposal before deciding whether to proceed. The Draft EIS is available so that the public and other agencies and entities can comment on its accuracy and content.

Background and Objectives

Purpose and Need

New ocean development on Washington’s Pacific Coast has the potential to:

- Adversely impact existing uses such as fishing, shellfish aquaculture, recreation and navigation, including reducing area or access for these activities.
- Adversely impact environmentally sensitive areas and resources, and reduce marine ecosystem functions and values.
- Reduce human safety and value of public and private property.

Multiple uses, and new uses, also constitute a management challenge for sustaining resources and coordinating state decision making in a proactive, comprehensive and ecosystem-based manner.

To address challenges posed by new ocean development, Washington needs to provide a framework for guiding and evaluating proposed new ocean uses on Washington’s Pacific Coast. Developing a Marine Spatial Plan (MSP) provides opportunity to ensure that new ocean use developments are appropriately sited such that existing activities and new development can successfully coexist, while maintaining a productive, healthy marine ecosystem.

The MSP should provide the following outcomes:

- Protect sustainable, existing marine uses.
- Support a healthier and more resilient ecosystem.
- Sustain traditional and cultural resources and uses.
- Improve alignment of management decisions through a collaborative process.
- Enhance sustainable economic opportunities.

Legislative mandate

Revised Code of Washington (RCW) Chapter 43.372 authorizes a marine interagency team chaired by the Governor’s office to coordinate the development of marine management plans, including marine spatial plans.. The Governor’s office designated Department of Ecology as lead for coordinating the development of the MSP for Washington’s Pacific Coast (RCW 43.372.040(1)).

Chapter 43.372.040(11) directs the Department of Ecology to submit the completed plan to the National Oceanic and Atmospheric Administration (NOAA) for approval as part of the state’s federally-approved Coastal Zone Management Program.

Objectives and limitations

Upon completing a scoping process under SEPA in January 2014, Ecology identified the following objectives for the MSP:

Objective 1: Protect and preserve healthy existing natural resource- based economic activity on the Washington Coast.

Objective 2: Sustain diverse traditional uses and experiences to ensure continuity of Washington's coastal identity, culture, and high quality of life.

Objective 3: Foster healthy and resilient marine ecosystem functions, biodiversity and habitats.

Objective 4: Develop a locally supported and collaborative process that is coordinated with existing authorities for aligning management decisions.

Objective 5: Enhance sustainable economic opportunities to achieve a resilient economy and improved quality of life.

Overarching objectives that also apply to the MSP include:

- Be consistent with state laws, policies, and authorities.
- Provide credible, baseline information and analyses on the Washington coast.
- Be implemented/adopted by multiple entities.
- Clarify and enhance state's ability to review federal actions that may affect Washington's coastal resources and uses.

Existing treaties, the US and Washington State Constitutions, court decisions, and state and federal laws and regulations all define roles and processes for different agencies regarding various authorizations for aspects of marine uses and resources.

Washington's marine waters planning and management law (RCW 43.372):

- Requires state and local agencies to make decisions consistent with the final Marine Spatial Plan ([RCW 43.372.050\(1\)](#)).
- Limits the state and local agencies to using their existing authorities to implement the plan and does not create any new authorities ([RCW 43.372.060](#)).
- Does not affect projects existing prior to nor during the development of the plan ([RCW 43.372.060](#)).
- Cannot alter federal laws or tribal treaty rights.
- Requires Department of Ecology to submit the final plan to NOAA to be approved as part of the state's federally-approved Coastal Zone Management Program. Therefore, the federal regulations and policies implementing the federal Coastal Zone Management Act are also relevant to the approach or strategy chosen for the MSP.

These factors all limit the methods for achieving the objectives of the MSP. Furthermore, state and federal budgets play a role in controlling the development and implementation of the approach.

Applicable Regulations, Plans, Laws, and Treaty Obligations

Numerous regulations, plans, laws, and treaty obligations guided or influenced the development of the MSP and draft EIS. Because this is a programmatic EIS for a nonproject action, and the specific nature of potential new ocean use projects is not yet known, it is not possible to present a complete list of permits, licenses, and approvals that could be required. However, the MSP provides important information in Chapter 1 on tribal treaties and federal management areas in the MSP Study Area and Chapter 4 (specifically Section 4.1) describes existing state and local regulations and authorizations.

Implementation of the alternatives in the draft EIS would require compliance with regulations and plans at federal, state, and local levels. A project proponent would need to comply with applicable laws, regulations, and Executive Orders. Examples of those requirements that are commonly associated with developments and activities in marine waters and shorelines, include:

- State Environmental Policy Act
- National Environmental Policy Act
- Coastal Zone Management Act
- Clean Air Act
- Clean Water Act - Sections 401, 402, and 404
- Endangered Species Act
- Energy Policy Act
- Federal Power Act
- National Historic Preservation Act
- Magnuson-Stevens Fishery Conservation and Management Act
- Marine Mammal Protection Act
- Oil Pollution Act
- Outer Continental Shelf Lands Act
- Sanctuary permit (Olympic Coast National Marine Sanctuary)
- Section 10, Rivers and Harbors Act
- Submerged Lands Act
- Aquatic Use Authorization for state-owned aquatic lands
- Washington State Hydraulic Code
- Washington State Shoreline Management Act
- Governor's Executive Order 05-05: Archeological and Cultural Resources
- Water Right Permit
- Sand and Gravel General Permit
- Construction Stormwater General Permit
- Building Permit
- Local critical areas codes, zoning ordinances, and other land use requirements

Federal planning and management efforts in the MSP Study Area such as:

- Olympic Coast National Marine Sanctuary
- National Wildlife Refuges
- Olympic National Park – coastal unit
- US Army Corps of Engineers – planning for maintaining navigation, including dredging, jetties, and other infrastructure.
- Bureau of Ocean Energy Management - planning for outer continental shelf leases (e.g. oil and gas, marine renewables and minerals)

Local or regional management plans that are in effect or under development that could influence implementation of the MSP include:

- Regional sediment management plan for the Mouth of the Columbia River (Lower Columbia Solutions Group).
- Salmon recovery plans, such as the *Washington Coast Sustainable Salmon Plan* (Washington Coast Sustainable Salmon Partnership).
- Habitat restoration plans, such as those developed through local shoreline master programs.
- Watershed management plans, which recommend strategies for setting in-stream flows, improving water quality, and protecting or enhancing fish habitat (plans currently adopted for Sol Duc-Hoh Basin and Chehalis Basin).
- Total Maximum Daily Load Implementation Plans, designed to address pollution and improve water quality. Includes TMDLs for Willapa River and its tributaries, Chehalis River Basin, and Grays Harbor, and a source investigation study for North Beach.
- Other local planning efforts such as those by ports, state parks, or other groups.

Environmental documents and studies

Environmental documents incorporated by reference

A number of environmental documents have been prepared for other state or federal activities or under their authorities noted above. Most are relevant because they summarize a portion or all of the MSP study area at various scales and evaluate issues and impacts of management actions, activities, or major proposed developments that occur or are proposed in the MSP study area. Some address the same uses that the MSP seeks to address (e.g. renewable energy). Therefore, these environmental documents are relevant to planning for the MSP study area and are incorporated by reference. The following lists and summarizes each document.

Environmental Assessments

Olympic Coast National Marine Sanctuary. (2011). Olympic Coast National Marine Sanctuary final management plan and environmental assessment. Office of National Marine Sanctuaries, National Oceanic and Atmospheric Administration. Document available at: <https://olympiccoast.noaa.gov/management/managementplan/managementplanwelcome.html#downloadmanagementplan>

This document summarizes the affected environment of the Olympic Coast National Marine Sanctuary (see Chapter 6). The document also includes background on coastal treaty tribes as well as evaluates the impacts of the proposed management plan alternatives such as management actions on vessel discharges, overflights, spills, research, education, and collaborative management. The document is relevant to the current proposal because the area and marine management issues described comprise much of Washington's Pacific coastline and over half of the MSP study area.

Washington Maritime National Wildlife Refuge Complex and Pacific Northwest Comprehensive Conservation Planning Team. (2007). Washington Islands National Wildlife Refuges: Flattery Rocks, Quillayute Needles, and Copalis National Wildlife Refuges Comprehensive Conservation Plan and Environmental Assessment. U.S. Fish and Wildlife Service. Document available at: <https://www.fws.gov/pacific/planning/main/docs/WA/waislands/WAIslCCP.pdf>

This document summarizes the affected environment and proposed management actions to protect wildlife of the national wildlife refuges. Management issues addressed include wildlife disturbance from public access, vessels and aircraft, oil spills, marine debris, invasive species, as well as scientific monitoring and research, education, and coordinated management activities.

Environmental Impact Statements (NEPA or SEPA)

City of Hoquiam, & Washington State Department of Ecology. (2016). *Westway expansion project: Final environmental impact statement, main report*. Document available at: <http://www.ecy.wa.gov/geographic/graysharbor/westwayterminal.html>

This document evaluates a proposal to expand a liquid bulk storage facility to receive, store, and export crude oil from the Port of Grays Harbor. It summarizes the affected environment, primarily within Grays Harbor, including details on environmental conditions and resources, tribal resources, and existing uses (e.g. fishing and recreation). The document analyses the potential adverse environmental effects from this proposal, including to existing vessel traffic volume and to environmental health and safety from a large oil spill or explosion.

United States Department of the Navy. (2015). *Northwest training and testing activities final Environmental Impact Statement/Overseas Environmental Impact Statement*. Silverdale, WA: United States Department of the Navy, Naval Facilities Engineering Command, Northwest. Document available at: <http://nwtteis.com/default.aspx>

This document evaluates the environmental effects of Navy training and testing activities in the Pacific Northwest, some of which overlaps with the MSP study area. Activities include training in anti-surface, anti-submarine, and anti-air warfare; mine and electronic warfare; and other training and testing activities. It summarizes the affected environment; describes training and testing activities proposed in the area; and evaluates the effects of the proposed Navy activities.

Willapa National Wildlife Refuge Complex. (2011). *Willapa National Wildlife Refuge: Final Comprehensive Conservation Plan and Environmental Impact Statement*. U.S. Fish and Wildlife Service. Document available at: https://www.fws.gov/refuge/willapa/conservation/comprehensive_conservation_plan.html

This document summarizes the affected environment and proposed management actions to protect and restore wildlife and habitat of the Willapa Bay National Wildlife Refuge. It includes information on the physical and biological environment of Willapa Bay and evaluates management actions to protect and manage brandt, waterfowl, shorebirds, elk and other wildlife; manage and restore habitat such as breaching pasture land and returning to estuarine habitats and managing forested areas; and support recreation (e.g. wildlife watching, boating, camping, hunting, and fishing).

Minerals Management Service (2007). *Programmatic Environmental Impact Statement for Alternative Energy Development and Production and Alternate Use of Facilities on the Outer Continental Shelf: Final Environmental Impact Statement*. OCS EIS/EA, MMS 2007-046. Documents available at: <https://www.boem.gov/Renewable-Energy-Program/Regulatory-Information/Guide-To-EIS.aspx>

Assesses environmental impacts that may arise from authorizing renewable energy development (wind, wave, and current technologies) on the Outer Continental Shelf. Volume I: Chapter 4 generally describes and compares the environmental and socioeconomic characteristics of the Pacific Region (Washington, Oregon, and California) as of 2007. Volume II: Chapter 5 addresses environmental and use impacts from all stages: testing, site characterization, construction, operation, and decommissioning. This section of the EIS also provides suggested mitigation measures. This is relevant to the MSP, since one of the major new ocean uses it addresses is marine renewable energy.

Other relevant environmental studies, models and documents

The state funded several studies aimed at developing baseline information, models, and other data to support this proposal (See Appendix A for the list of studies and references). Visit the marine spatial planning website at <http://www.msp.wa.gov> to download study reports and view ocean use or resource data using the online web mapping application.

Alternatives

Proposed Alternative: Adopt the Marine Spatial Plan

The proposed alternative is adopting the Marine Spatial Plan (MSP). By adopting the MSP, agency processes and future applicants would be supplemented with additional information and guidance to help address concerns about potential adverse impacts to the environment and existing users that stem from proposed new ocean uses.

In particular, the MSP:

- Delivers baseline information on existing ocean uses and resources.
- Provides guidance on siting and evaluation of new ocean uses, including identifying informational and procedural requirements for proposed projects and integrating stakeholder recommendations for different phases of project review.
- Establishes protections for important, sensitive, and unique areas (ISUs) and fishing.
- Improves coordination among governments and with stakeholders.
- Enhances the state's ability to review and influence federal activities that may affect Washington's ocean resources or uses, including those proposed in federal waters. These federal activities include activities undertaken by federal agencies and proposals by private entities that require federal leases, licenses, or permits.

The MSP provides a framework for guiding and evaluating new ocean uses through various phases of project review. The MSP does not directly stimulate new ocean use development or infrastructure. The likelihood of future developments and associated physical changes to the environment of the MSP Study Area will be largely based on outside factors such as the demand and market for new ocean uses and technological readiness.

It is possible that having compiled information and a state framework may be viewed by some potential applicants for new ocean uses as a benefit that would provide a more certain review process for projects over other locations (e.g. other states or regions). In this way, the MSP could possibly generate additional interest in and proposals for new ocean uses than would otherwise be expected. Even proposed projects are more numerous, each project would still be subject to the same ultimate state approvals, policies, and existing criteria. Therefore, the differences in the types of impacts and degree of impacts would likely be minimal regardless of the number or types of projects proposed.

At the same time, the MSP directs and encourages the protection of sensitive ecological resources, protection of fisheries and other uses from significant adverse effects, and identifies ways to avoid and minimize impacts to the natural and built environment. By further detailing baseline information, standards, and recommended approaches for applicants and agencies, the MSP decreases the likelihood of adverse impacts to these resources.

Due to the variability in scale, siting, and design of potential new ocean uses, specific risks and impacts will be assessed at the project level. The MSP does not attempt to assess these specific impacts that may be posed by future projects. Rather, it provides the informational and

procedural requirements to ensure the risks and impacts are adequately addressed in future permitting processes. Therefore, there are no unavoidable adverse environmental impacts of adopting the plan.

No Action Alternative

Under the No Action Alternative, agencies would use applicable existing laws, regulations and processes to assess projects individually at the time of application. Agency permit or lease decisions would be based solely on the applicable authorities.

Under the No Action Alternative, applicants and agencies would have:

- No information provided upfront to guide siting for new ocean uses.
- No additional coordination on projects among governments nor with stakeholders.
- No protections or guidance for evaluating new ocean uses and addressing potential impacts through siting, project design, or project planning. All potential impacts would be addressed at the project level.
- No clarification or enhancement of state's review of federal actions. State would have to request review of federal actions in federal waters on a case-by-case basis.

The No Action Alternative does nothing to encourage or direct changes to new ocean use development and the associated demands on the environment. Possible consequences of no-action alternative include:

- Applications submitted and possibly approved for locations or designs that are not ideally suited to avoid and minimize impacts to resources or existing uses. This could result in adverse impacts to the natural or built environment. Since proposals would still be subject to the same ultimate approvals as under the proposed action, these impacts would likely be minimal.
- Increased time and cost to process project applications.
- Lack of early involvement and engagement of stakeholders, which would minimize the ability for a project applicant to adjust their proposal to address concerns about impacts.
- Lack of coordination among agencies could result in disagreement on requirements and delay or divergence in agency decisions.
- Possible approval for multiple projects that together have large cumulative effects, but individually have minimal impacts.

Overall, adverse impacts would likely be mitigated in state waters using existing authorities, processes and criteria under the No Action Alternative. The No Action Alternative relies on these processes and does not provide more specific mitigation measures. Adverse impacts to state coastal uses and resources are more likely in federal waters due to lack of up-front information, guidance, and engagement by the state in reviewing and coordinating on proposed projects.

If these impacts were to occur, the No Action Alternative would not meet many of the proposal's core objectives to protect existing uses, sustain cultural uses and experiences, maintain marine ecosystem functions, and improve alignment and coordination among agencies. This alternative would also not satisfy the requirements in the state law (RCW 43.372).

Alternatives considered but not carried forward in the EIS

Several alternatives were eliminated from further study for a variety of reasons, and were not carried forward for further analysis. These include:

Adopt or revise a rule

Washington State has numerous laws and regulations that already apply to developments in marine waters. For the MSP Study Area in particular, the Ocean Resources Management Act (RCW 43.143) and its regulations (WAC 173-26-360) set forth comprehensive state policies and standards for permitting ocean uses. There is a need for detailed information and guidance regarding these policies and standards, rather than adopting new rules.

The MSP law does not create any new authorities; local and state agencies must rely on existing authorities to implement the MSP. (RCW 43.372.060). Therefore, this option was not pursued further.

Adopt a plan with detailed marine zoning

To achieve the economic development objective (see objective 5), pursuing a zoning option would require positive identification of areas for future new ocean uses as well as areas where development would be discouraged or off-limits. Addressing a variety of potential new ocean uses with different potential impacts to the environment and users creates challenges for pursuing the zoning option effectively and adequately.

Using a zoning approach effectively requires reliable and more specific projections on future demand for new development (e.g. where, when, and how much). This specific information is lacking for most of the potential new ocean uses. Many technologies for new ocean uses are also in a nascent state of development, or are rapidly evolving, which makes it more challenging to plan for future conditions.

While general information is available on potential impacts and similarities across uses, the certainty in and degree of potential impacts will also depend widely on the particulars of the project proposal, including siting, design, scale, and proposed mitigation measures.

Combined, these factors mean it would be difficult to develop an effective zoning plan that is supported by sufficient data, provides adequate flexibility to achieve all objectives, and addresses the other issues. Therefore, a detailed zoning plan was considered but not pursued.

The proposed alternative (Adopting the Marine Spatial Plan) addresses the key considerations for siting and evaluating new ocean uses and addressing impacts consistent with existing state laws, regulations and standards. The specifics of a project and conditions will be further evaluated at the time of a proposal.

Propose legislation

The Washington State Legislature passed RCW 43.372, which provided the basis for the development of the proposed alternative (Adopting the Marine Spatial Plan). This law limits the state and local agencies to using their existing authorities to implement the plan and does not create any new authorities (RCW 43.372.060). Additionally, it encourages improved coordination among state agencies and that plans build off of existing efforts (RCW 43.372.005(3)). Given this context, proposing new legislation was not a viable alternative and was not pursued further.

Provide technical assistance

Technical assistance can take many forms such as developing educational materials, conducting outreach or training, or providing informal guidance on existing state regulations. The Washington State Legislature passed RCW 43.372, which provided the basis for the development of the proposed alternative (Adopting the Marine Spatial Plan). Providing technical assistance was not comprehensive enough in scope to address the requirements of this statute and was eliminated from analysis.

Implementation considerations: consistency and monitoring

Ecology considered the consistency of the proposed MSP with the marine planning law, Ecology's plans and regulations, and those plans and regulations of other agencies and jurisdictions. The MSP further describes agency implementation actions including those relevant to consistency and monitoring in Chapter 4: MSP Management Framework.

Internal consistency

There are not inconsistencies with internal Ecology plans or regulations. However, to ensure the MSP is considered and implemented effectively and consistently through existing agency processes and authorities, the new policies and procedures outlined in the MSP will require internal staff training and outreach.

External consistency

In implementing the MSP, Ecology will work to ensure relevant state agencies and local governments incorporate the MSP into their existing decision-making processes and make decisions consistent with the plan. This will include working with local governments to update and administer their local Shoreline Master Programs consistent with the MSP.

The MSP law requires Ecology, with the interagency team, to monitor compliance with the plan, identify any substantial inconsistencies, and make recommendations to the state agency or local government for resolving inconsistencies (RCW 43.372.050(2)). This includes Ecology reporting on inconsistencies to the Legislature no later than four years after the adoption of the plan (RCW 43.372.050(3)).

Monitoring

Ecology and the interagency team will monitor and examine results of plan implementation and permitting processes. The MSP requires monitoring and adaptive management plans for projects to gather data on effectiveness of mitigation and make necessary adjustments to address impacts.

With input from stakeholders, the state agencies will also consider if and when additional updates or amendments to the MSP are necessary.

Affected Environment

Chapters 1 and 2 of the Marine Spatial Plan (MSP) describe the affected environment of the MSP Study Area, including the existing ecological resources, human uses, infrastructure, communities, and trends that may be affected by potential new ocean uses addressed by the MSP. The section provides a high-level overview of the MSP Study Area and affected environment. For the detailed description of the affected environment, please review Chapters 1 and 2 of the MSP.

Washington's Pacific Coast is rural and less developed than other coastal areas of the state. Coastal communities in this area are dependent on natural resources, recreation, and tourism. The marine waters along Washington's Pacific Coast contain abundant natural resources and diverse habitats that support biological diversity and resilience of the marine ecosystem. The study area is home to a number of threatened and endangered species; diverse habitats such as kelp forests, rocky islands and reefs, and deep-sea corals; commercially and recreationally important fish and shellfish; historic and cultural resources; and migration corridors for birds, marine mammals, and fish species.

These ocean resources support multiple public uses that benefit the economies and cultures of nearby communities as well as the entire state such as fishing, recreation, shipping, shellfish aquaculture, tourism, and military training. The citizens of Washington, as well as the Native American tribes that have rich histories and treaty-protected interests along the coast, depend upon marine resources and will continue to do so into the future.

The MSP Study Area consists of marine waters of the Pacific Ocean from ordinary high water on the shoreward side out to a water depth of 700 fathoms (4,200 feet) offshore and from Cape Flattery south to Cape Disappointment at the Mouth of the Columbia River. It covers approximately 480 nautical miles of coastline and spans 5,839 square nautical miles (7,732 square statute miles).

The northern coastal portion of the Study Area consists of a mostly rocky coast with several coastal rivers, rocky outcrops and offshore islands, and pocket beaches. This portion also overlaps with the Usual and Accustomed Areas of four treaty tribes and the Olympic Coast National Marine Sanctuary. Adjacent uplands are rural, consisting mostly of Olympic National Park land and tribal reservations of the Makah, Quileute, and Hoh Tribes and the Quinault Indian Nation.

The southern coastal portion of the Study Area has generally sandy beaches and dunes. These coastal beaches are largely contained within the Seashore Conservation Area and managed by Washington State Parks. The Study Area also includes the large estuaries of Willapa Bay and Grays Harbor. Adjacent to the Study Area along the southern coast are several small cities and towns, as well as the Shoalwater Bay tribe's reservation. Uplands in the southern area are largely managed private and public timber lands and agriculture.

Environmental Impacts of Alternatives

Environmental impacts of new ocean uses

If ultimately approved, new ocean uses could produce physical changes in Washington's marine waters and to the communities that depend upon them. Many of the new uses share common potential impacts to the environment, such as:

Direct impacts of installing new infrastructure

Examples of potential direct and immediate impacts at or near the project site include:

- Disturbing or damaging benthic habitat and altering water quality (e.g. construction and operation may generate noise, increase turbidity, discharge waste or nutrients, or introduce chemicals through spills or leaching of antifouling materials).
- Displacing existing uses from access to site.
- Altering electromagnetic fields (e.g. cables) and attracting marine species (e.g. biofouling and fish aggregation on/near structures).
- Entangling fishing gear or marine debris, and entangling or collision of marine species with structure (e.g. birds, marine mammals).

Systemic physical and ecological disturbance

Examples of indirect impacts to ecological processes and the broader area from projects include:

- Altering wave and sediment dynamics, including sediment scouring, erosion, and altering sediment transport processes.
- Altering aesthetics or viewsheds.
- Changing marine species behaviors, distribution, and abundance.
- Introducing aquatic invasive species.

Positive environmental impacts

Some new ocean uses may result in physical changes that also improve the environment. For example, marine renewable energy projects could increase the availability and use of locally-produced, renewable energy and lower reliance on imported, fossil fuel energy sources which contribute to air pollution and climate change. Using dredge material in new, nearshore sites can restore nearshore sediment processes and benefit coastal beaches and dune systems, while reducing shoreline erosion that impacts people and infrastructure.

Similarities and differences in impacts

Some ocean uses like new dredged disposal sites or bioextraction involve temporary disturbance or displacement to a site and, generally, do not involve placing permanent infrastructure in the water. While these uses may have similar environmental impacts as listed above (e.g. benthic disturbance), other impacts may not be present (e.g. entanglement of marine species or altering electromagnetic fields). These uses may involve other impacts such as smothering or removing marine species that may be more prevalent than with other ocean uses that involve infrastructure.

The likelihood of physical changes to the environment resulting from the MSP depends upon: 1) the specific strategies and approaches chosen and evaluated and 2) the degree to which new ocean uses are ultimately permitted (scope, type, and scale of projects, as well as mitigation measures employed). Since proposals would still be subject to the same state approvals and existing policy criteria, the differences in impacts and degree of impacts would likely be minimal between the proposed MSP and the no-action alternative.

Proposed Alternative MSP Actions and Analysis of Impacts

The MSP is intended to inform the development of new ocean use proposals along Washington's Pacific Coast and be used in all stages of decision-making to protect the resources and current uses in the Study Area from adverse impacts arising from potential new uses. The following summarizes the actions included in the MSP, assesses the potential environmental impacts of those actions, and compares it to impacts expected from the No-Action Alternative.

Baseline Conditions and Trends, Data Analyses

The information in the MSP provides applicants and governments with the ability to:

- View other known activities, resources, interests, designations, and authorities that may conflict with or complement a proposal.
- Identify potential ways to avoid, minimize, and mitigate adverse impacts to marine resources or existing ocean uses prior to submitting an application, including alternative locations and configurations of projects.
- Identify appropriate parties with whom to discuss the proposal prior to submitting an application.

The MSP compiles an inventory of baseline conditions on existing uses of and resources in the Study Area (Chapter 2, Appendix A: maps) and provides data analyses to fulfill plan requirements and support plan designations and recommendations (Chapter 3).

Impact of providing data, information, and analyses

Providing data and analyses may serve to encourage new ocean use proposals, such as for marine renewable energy (wind, wave), offshore aquaculture, mining, or new dredge disposal sites. The MSP offsets the potential to increase the number of proposals by providing recommendations and requirements intended to make sure that, if development does occur, it is done with sensitivity to the environment and other uses.

As discussed above, the No Action Alternative would not supply this information to guide more appropriate site selection that avoids and minimizes impacts. This, in turn, may make it more likely for adverse effects to occur through either effects of an individual project or cumulative effects of poor site selection over multiple projects. Adverse impacts would likely still be mitigated in state waters using under the No Action alternative, since this alternative relies on existing authorities, processes, and criteria, which require that projects to demonstrate they will not result in likely, long-term significant adverse impacts to coastal resources or uses.

Management Actions

The MSP contains several management actions related to new ocean uses (see Chapter 4: MSP Management Framework), which are summarized below:

1. Consultation and Coordination

The MSP provides an improved process for state agencies and local governments to coordinate early on, including through joint pre-application meetings and evaluation of site-specific inventories, effects analyses, and plans for new ocean uses. It commits the state to collaborating and communicating with other government entities (tribal, state, local, and federal) on the review of proposed ocean uses as well. This includes activities such as notifying other governments regarding potential proposed project early; identifying project-specific coordination needs and mechanisms; working to understand one another's interests; and providing recommendations on project-specific data and information needs.

The MSP also requires applicants to notify the Washington Coastal Marine Advisory Council and to meet with Washington Department of Fish and Wildlife and affected fisheries stakeholders regarding proposed new ocean uses.

Impacts of consultation and coordination actions

Coordinating and aligning management decisions serves to improve the process for evaluating new ocean uses. It does not, in itself, encourage new physical changes to the environment. And, because the proposed alternative relies on existing authorities to be implemented, it does not produce major changes in the fundamental management structure for Washington's Pacific Coast.

At the same time, it is possible that having compiled information and improved coordination among agencies may be viewed by some potential applicants as a benefit that would provide a more certain and efficient review process for projects over other locations (e.g. other states or regions). In this way, a possible outcome could be additional interest in and proposals for new ocean uses than would otherwise be expected. Should additional project proposals result, the MSP balances this by establishing protection for sensitive areas and fisheries, identifying effects that should be assessed, and recommending ways to avoid and minimize significant adverse impacts.

The No Action Alternative would rely on existing processes for coordination and consultation. It would not encourage or discourage new physical changes to the environment. By relying on existing processes, it may result in less coordination and communication among agencies. In turn, it may be more likely to result in a longer permitting process, disagreement on project requirements, and delay or divergence in agency decisions.

2. Project-specific information requirements

The MSP clarifies and further details the project-specific information needed to support the application of existing state laws and policies to potential new ocean uses. The MSP provides guidance for new ocean uses on:

- Site-specific information and assessment needs including information about the proposed project and the environment, existing uses, infrastructure, and other conditions at the proposed site.
- Effects that need to be evaluated, including ecological, socio-economic, safety, and cumulative effects.
- Plans outlining procedures and methods employed by the applicant to ensure compliance with permit or license conditions, including monitoring, adaptive management, financial assurance, and decommissioning.

The existing state regulations for ocean uses contain both general and specific standards designed to ensure a project avoids and minimizes adverse impacts throughout the stages of a project's development such as siting, design, construction, operation, and decommissioning. The MSP provides these detailed review standards that applicants and agencies must consider in determining possible significant adverse effects resulting from a proposed new ocean use. An applicant's written effects evaluation must address compliance with the both the general standards and any specific standards that apply to the particular type of new use. Furthermore, the MSP suggests additional approaches that could be employed to avoid and minimize impacts to particular coastal uses.

Impacts of project-specific requirements

The project-specific requirements outlined by the MSP do not encourage direct changes to the environment. They are designed to ensure projects are providing appropriate information, assessing effects to users and the environment thoroughly, creating effective plans, and developing projects that prevent, avoid, minimize, and mitigate any significant adverse impacts. The result is projects that reduce their impact on the environment and other users throughout the life cycle of the project.

For example, entanglement of marine mammals or of fishing gear is a potential direct impact from new offshore structures. The MSP requires applicants meet with agencies and affected fisheries to discuss the proposal, potential risks, and ways to minimize risks. The MSP requires applicants to provide site-specific information on the types of species, migration routes, and fishing activities occurring where the new use is proposed. Next, the MSP outlines the types of effects that applicants must evaluate. In this example, that would include the potential for entangling marine species or risk of entangling fishing gear. As part of the process, applicants would need to develop any monitoring, adaptation, and contingency plans necessary to monitor and mitigate for any entanglement impacts. Before receiving state or local approvals, applicants have to demonstrate they have met all applicable standards, including the fisheries protection standard, and identifying how the project has minimized the risk of entangling fishing gear.

Altering the broader wave environment and sediment dynamics are examples of systemic effects that could result from new offshore structures. In this case, project-specific information required by the MSP would include information about the physical and geological conditions at the site, including wave conditions, sediment type, water depth, bottom slope, and current velocities. The

effects analysis requires an analysis of the effects to physical processes, including wave and sediment processes onsite and in the broader area. The MSP standards provide various ways that projects should demonstrate they have minimized impacts such as using designs and methods that prevent, avoid, and minimize disturbance to physical processes. Again, plans provided must address monitoring and adaptive management. Applicants must also provide a decommissioning plan that demonstrates the rehabilitation measures they will use to restore the seabed to original state to the maximum extent feasible.

The No Action Alternative does not encourage or discourage changes to the environment. Existing policies, regulations, and processes would be used to evaluate effects of projects and conditions for state and local permits. While these are integrated in the MSP, the MSP provides more specificity on the steps necessary for projects to demonstrate they have met these existing requirements over the No Action Alternative. For example, the No Action alternative does not describe the types of project-specific information or effects that should be assessed to achieve existing state policies.

3. Protection of Important, Sensitive and Unique Areas

The MSP identifies and establishes Important, Sensitive, and Unique areas (ISUs) to protect areas from adverse effects of offshore development (See Section 4.3.3 of the MSP Management Framework). Specifically, ISUs are areas that contain:

- Unique or sensitive species or are environmentally sensitive.
- Historic and cultural sites or fixed infrastructure.

Ecological ISUs include:

- Biogenic Habitats: Aquatic vegetation, corals, and sponges
- Rocky reefs
- Seabird colonies: islands and rocks used for foraging and nesting by seabirds.
- Pinniped haul-outs
- Forage fish spawning areas: intertidal areas used for spawning by herring, smelt or other forage fish.

Adverse effects for ecological ISUs is defined as either:

- i. Degradation of ecosystem function and integrity, including, but not limited to, direct habitat damage, burial of habitat, habitat erosion, and reduction in biological diversity.
- ii. Degradation of living marine organisms, including, but not limited to, abundance, individual growth, density, species diversity, and species behavior.

Historic, Cultural, and Infrastructure ISUs include:

- Historic and archaeological sites, such as structures or sites over 45 years old that are listed or eligible for listing in local, state or national preservation registers (e.g. shipwrecks or lighthouses); or artifacts or other material evidence of tribal or historic use or occupation (e.g. burials, village sites, or middens).
- Buoys and submarine cables, fixed infrastructure such as navigation or monitoring buoys, fiber optic cables, electrical transmission cables, other fixed monitoring equipment in the

marine environment (e.g. hydrophones) and any associated mooring lines, anchors or other equipment.

Adverse effects for historic, cultural or fixed-infrastructure ISUs are defined as any of the following:

- i. Direct impact by dredging, drilling, dumping, or filling.
- ii. Alteration, destruction, or defacement of historic, archaeological, or cultural artifacts.
- iii. Direct impacts from placement or maintenance of new, temporary or permanent structures in areas with existing infrastructure or historic, archaeological, or cultural artifacts.

An applicant may overcome the ISU protection standard using site-specific surveys, scientific data, and analysis that demonstrate either:

- The current ISU maps do not accurately characterize the resource or use, or the project area (mapped or not mapped) does not contain an ISU resource or use; or
- The weight of scientific evidence clearly indicates that the project will cause no adverse effects to the resources of the ISU.

Impacts of establishing ISUs

The establishment of ISUs identifies and protects the most sensitive areas in state waters from adverse effects of offshore development. These areas have known sensitivity and best available science indicates the potential for offshore development to cause irreparable harm to their habitats, species, or cultural resources.. The MSP increases environmental protection from physical, biological, or cultural/historical impacts by identifying areas and establishing protections up-front. This limits the total area available for the types of offshore development that cannot meet this standard, yet preserves opportunities for development elsewhere in state waters.

The No Action Alternative does not include specific protections and, therefore, may result in projects proposed in these sensitive areas that either: 1) are ultimately rejected due to potential impacts in these areas and incompatibility with state policies, or 2) are possibly approved and result in adverse impacts to these areas.

4. Fisheries Protections

The MSP also establishes fisheries protection standards to ensure offshore development does not have long-term, significant adverse effects to fisheries and that all reasonable steps are taken to avoid and minimize social and economic impacts to fishing (see Section 4.6.4 of the MSP Management Framework).

The fisheries protection standards also provide a definition for adverse effects to fisheries. Adverse effects can be direct, indirect or cumulative. Adverse effects for commercial or recreational fisheries are defined as any of the following:

- i. A significant reduction in the access of commercial or recreational fisheries to the resource used by any fishery or a fishing community(s).
- ii. A significant increase in the risk to entangle fishing gear.
- iii. A significant reduction in navigation safety for commercial and recreational fisheries.
- iv. Environmental harm that significantly reduces quality or quantity of marine resources available for harvest.

In addition to consulting with affected fisheries, the protection standard also identifies the following specific considerations that new offshore developments must meet:

- Minimize the number of and size of anchors. Space structures for greater compatibility with existing uses and bury cables in the seafloor and through the shoreline.
- Minimize risk of entangling fishing gear from new structures installed in the seafloor or placed in the water.
- Minimize the displacement of fishers from traditional fishing areas, and the related impact on the travel distance, routing and navigation safety in order to fish in alternative areas.
- Minimize the compression of fishing effort caused by the reduction in the areas normally accessible to fishers.
- Minimize the economic impact resulting from the reduction in area available for commercial and recreational fishing for the effected sectors and ports.
- Limit the number and size of projects that are located in an area to minimize the impact on a particular port, sector, or fishery.
- Consider the distribution of projects and their cumulative effects.
- Other reasonable and relevant considerations as determined by the fisheries consultation process and specifics of the proposed project.

As part of the consultation requirements, applicants proposing offshore developments are also required to consult with WDFW and affected fisheries to identify potential adverse impacts and opportunities to avoid, reduce, or minimize impacts to fisheries.

Impacts of Fisheries Protections

The fisheries protection standard does not limit specific areas in state waters from project proposals, but, consistent with existing state laws, requires offshore development proposals to demonstrate they will not result in significant adverse impacts to fisheries and have taken all reasonable steps to avoid and minimize adverse effects. It outlines specific considerations that reduce physical, ecological, and socioeconomic impacts to fisheries from proposed projects. These considerations, along with a comprehensive definition for adverse effects for fisheries and a requirement to consult with WDFW and affected fisheries, provide greater specificity and assurance that projects will meet these requirements.

The No Action Alternative does not include more specific fisheries protections and relies solely on existing state policies, which articulate general protections for fisheries. However, relying on existing state policies alone, may result in projects proposed that either: 1) are ultimately rejected due to potential significant adverse impacts to fisheries and incompatibility with state policies, or 2) are possibly approved and result in adverse impacts to fisheries due to lack of specificity in state policies or procedures.

5. Spatial recommendations for state waters

The MSP provides other spatial recommendations for state waters regarding estuaries and the scale of renewable energy projects.

Estuaries

For new ocean use projects proposed in coastal estuaries (such as Grays Harbor or Willapa Bay), the MSP indicates that a more detailed analysis for spatial conflicts and impacts will be necessary to ensure projects avoid and minimize significant adverse impacts to resources and current uses.

Coastal estuaries, including Grays Harbor and Willapa Bay, are important ecological areas and are heavily used by existing uses and their associated infrastructure. They are home to critical saltwater habitats and Priority Habitats and Species, such as spawning and juvenile rearing areas, aquatic habitats (e.g. eelgrass, kelp, mudflats, and shellfish beds), state-listed or candidate species, vulnerable aggregations, and species of commercial, recreational, or tribal importance. While estuaries themselves are not designated as an ISU (see above for description of ISUs), many ISUs occur within estuaries. Yet, the availability and resolution of current data is inadequate to aid in detailed siting within estuaries. Therefore, a more detailed and finer-scale analysis for proposed projects will be required to “provide special protection to the marine life and resources of the estuaries and to ensure all reasonable steps are taken to avoid and minimize impacts to the habitats, species, and uses in estuaries” (RCW 43.143.030(2)(d) and RCW 43.143.030(2)(e)).

Renewable Energy Projects

The MSP analyses performed illustrate the large footprint required for projects designed to produce wind energy at a scale matching potential needs for renewable energy in the regional power grid in the next 10-15 years. In state waters on Washington’s Pacific coast, these analyses indicate that projects of this scale require large footprints that occupy a large proportion of the total area of state waters and intersect with many existing ocean uses and resources. Therefore, in state waters, industrial-scale renewable energy projects will likely have a very difficult time demonstrating that they can avoid significant adverse impacts to existing uses and resources. Community-scale renewable energy facilities proposed for state waters may find it easier to demonstrate consistency with state policies, plans, and authorities through existing permitting processes. The MSP Management Framework provides definitions for both industrial-scale and community-scale renewable energy facilities.

Impacts of spatial recommendations for state waters

Providing these spatial recommendations serves to notify potential applicants of challenges they may face in siting projects in certain areas in state waters. As a result, these spatial recommendations may discourage proposals for new ocean use projects of certain sizes in state waters or in coastal estuaries.

Another potential outcome of these recommendations is that applicants have early notice of additional requirements and analyses that may be needed in certain areas. With this advance notice, applicants would be better prepared to carefully select sites and scales for proposed

projects, and to perform more detailed data gathering and assessments required in those areas. Improving the quality and type of applications for projects will reduce the likelihood of the state receiving applications for projects that will ultimately be unsuccessful. However, these recommendations do not, in themselves, direct the type of proposals an applicant may submit to the state.

The No-Action Alternative relies solely on existing state policies and procedures. No additional guidance would be provided to potential applicants on the challenges posed by certain areas or by certain scales of renewable energy projects. As a result, it may be more likely that the state receives a greater number of initial applications for projects that are ultimately rejected due to the scale of or siting of the project – i.e. due to potential significant adverse impacts and incompatibility with state policies. In addition, proposed projects may take longer to assess because applicants do not have advanced knowledge of potential challenges and information needs for certain areas.

Cumulative Impacts

This cumulative impacts analysis is prepared in accordance with SEPA (Chapter 43.21C RCW), the SEPA Rules (WAC 197-11-060), and the SEPA Handbook. Additional guidance developed by the Council on Environmental Quality in the handbook entitled *Considering Cumulative Effects under NEPA* (1997) was also considered where SEPA requirements are consistent with requirements of NEPA.

Cumulative impacts are the effects that may result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions (40 Code of Federal Regulations [CFR] 1508.7). “Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR 1508.7). Generally, an impact can be considered cumulative if: (a) effects of several actions occur in the same locale; (b) effects on a particular resource are similar in nature; and (c) effects are long term in nature.

Past actions

A range of past and current activities have altered the MSP Study Area and nearby communities, including:

- Construction of jetties, other public infrastructure, and residential and commercial properties.
- Navigation and training activities such as maritime shipping, military training, and dredging.
- Harvest and cultivation of natural resources such as fishing, hunting, shellfish aquaculture, and logging.
- Recreational uses of coastal beaches and marine waters.
- Designation of management areas such as sanctuaries, parks, refuges, and wilderness areas designed to protect and manage resources.

The MSP Study Area has experienced both large and small oil spills that have had significant adverse impacts on ocean resources and human uses in the area, including some of the largest oil spills in state history - the *Tenyo Maru* and *Nestucca*.

The primary actions and activities occupying the Study Area have remained largely the same over the past several decades. Yet, there have been fluctuations in the volume, nature, distribution, or patterns of those uses. These past and current activities provide important context for new ocean use proposals. For example, the consequences of past activities on sediment processes have led to erosion in some coastal areas and increased the desire for solutions. Another example is the presence of past proposals for wave and tidal energy, which suggest potential for future similar proposals.

Present and reasonably foreseeable future actions

There are two ways present and reasonably foreseeable future actions on Washington's Pacific coast may be relevant to the MSP:

- 1) those actions that would alter the context, or marine-scape, for new ocean use proposals such as those that: a) result in shifts in resources or use patterns/intensity or b) change management (e.g. EFH areas) of the area.; or
- 2) those actions that influence likelihood of or requirements for new ocean use proposals.

Actions that alter the context for new ocean use proposals.

Chapter 2 of the MSP describes the current and future trends regarding the resources and existing uses of the Study Area. For example, proposed port developments may increase the number of vessels or types of products shipped through the Study Area. Or, changes in fisheries management plans may alter where or how various fisheries are operating or the relative economic contribution of those fisheries to local communities. Furthermore, predicted changes in ocean conditions as a result of climate change may cause higher ocean temperatures; increases in sea level rise, coastal flooding, and erosion; increased ocean acidification; increased frequency, location, and persistence of harmful algal blooms; and changes to circulation and upwelling patterns. These changes, in turn, will likely alter abundance and distribution of species and habitats and influence marine-resource based industries and recreation. Collectively, these current and future trends may mean that new ocean uses could exacerbate pressure on already stressed marine resources and industries. Alternatively, new ocean uses could increase economic opportunities and resilience for coastal communities and marine industries.

Actions that influence likelihood of or requirements for new ocean use proposals.

State, regional, national, and global demand for telecommunications, energy, and seafood have led to more project proposals, new types of ocean uses and technologies, and planning efforts for ocean and marine areas. Changes to local, state, or federal policies and regulations may increase the likelihood for certain types of projects. The remainder of this section focuses on those present or foreseeable actions that relate to the likelihood of new ocean use proposals in the MSP Study Area. This may include:

- Infrastructure upgrades such as jetty rehabilitation, dredging, and cables.
- Other local programs and plans, particularly sediment management.

- Energy and carbon policies and regulations.

Coastal infrastructure, particularly jetties and navigation channels, help maintain safe navigation for trade and marine-resource industries on Washington's Pacific coast. Jetties at the entrances of Grays Harbor and Columbia River are due for rehabilitation and upgrade. It is unclear when jetty improvements might occur. Jetty improvements could also assist with coastal erosion at the entrance to Grays Harbor. Dredging is currently underway in Grays Harbor deepening the existing navigation channel to accommodate larger vessels. Submarine cables may be proposed to transmit electricity in the region (e.g. across Willapa Bay) or to meet increasing demand for improved access and higher-speed telecommunications (e.g. fiber optic cables that cross the Pacific Ocean). As these types of infrastructure upgrades occur, that may attract additional interest by proponents of a variety of new ocean uses, as those uses also benefit from stable and improved coastal infrastructure.

Local programs and plans may influence potential for new ocean uses and requirements for them. These are discussed within the MSP. Specific foreseeable actions include ongoing sediment management planning and work to address coastal erosion across the coast. The Lower Columbia Solutions Group is working to foster beneficial use of dredge material and reduce harm to navigation and resources. This may result in siting and permitting for new dredge disposal sites such as one currently proposed near North Head. Other local partnerships and projects, such as Grays Harbor Coastal Resilience Coalition and Willapa Erosion Control Action Now, are underway to address coastal vulnerabilities, especially coastal erosion. These efforts may result in additional coastal projects designed to increase beneficial use of sediment and address erosion hotspots. Depending on the specific project needs, this may increase the demand for additional nearshore or onshore dredge disposal sites or offshore sand or gravel mining as a source for beach and dune sand nourishment.

The State of Washington has adopted energy and carbon policies that influence the demand for new renewable energy developments. Washington's Energy Independence Act of 2006, also known as Initiative 937, enacted a Renewable Energy Portfolio Standard that requires electricity utilities with 25,000 or more customers to acquire at least 15 percent of their power from eligible renewable energy resources by January 2020. In 2017, Ecology adopted regulations aimed at reducing carbon pollution. These regulations included provisions for meeting carbon reduction targets through direct emission reduction, increases in energy efficiency, or investment in renewable energy. As utilities and industries work to meet these requirements, they may be increasingly interested in development of marine renewable energy as an option.

National energy policy has recently shifted to a focus on potentially increasing domestic oil and gas production, including from offshore sources in the U.S. It is possible the federal government may seek to pursue leases for potential resources off Washington's coast, although past national resource inventories and assessments have revealed smaller resources in this region than elsewhere in the nation and a general lack of industry interest.

Cumulative effects of alternatives

The cumulative impacts of the MSP are expected to be largely beneficial - providing robust science and information for the siting and evaluation of potential new ocean uses; better coordination and communication among governmental entities; and increased protection for sensitive resources and existing uses. The individual action elements of the MSP are designed to ensure future ocean use projects prevent, avoid, and minimize adverse impacts to the environment and communities. They do not have cumulative, significant adverse impacts to the environment.

Cumulative effects from future ocean use proposals are possible. However, these cumulative effects would be further identified at the project-level environmental review instead of the programmatic-level analysis included in this EIS.

As discussed earlier, the No Action Alternative relies on existing policies, processes, and information to guide new ocean uses and, overall, would likely result in mitigation of adverse effects in state waters. This existing process includes conducting project-level environmental review and ensuring projects meet state ocean policies such as ensuring no significant, long-term adverse impacts to resources or uses.

The No Action Alternative does not provide baseline and planning-scale information nor does it establish more specific protections for sensitive resources and fisheries. Without this information up-front, it is possible that projects or designs may be approved that are not best-suited to avoid cumulative adverse effects to ocean resources or existing uses. Again, since proposals would still be subject to the same ultimate approvals and policy criteria as under the proposed action, the cumulative adverse impacts would likely be minimal. Similarly, cumulative effects may be more likely from the potential approval of multiple projects that together have large cumulative effects, but individually have minimal impacts.

Appendix A. Marine Spatial Plan studies

The state funded several studies aimed at developing baseline information, models, and other data to support development of the Marine Spatial Plan. Appendix A provides a list of these studies and their references. Other existing data, studies, and reports produced outside of the planning process also assisted with supporting the development of the plan. Please see citations listed within the plan for these additional studies and data.

Economic studies

Taylor, Michael, Janet R Baker, Edward Waters, Thomas C Wegge, and Katharine Wellman. "Economic Analysis to Support Marine Spatial Planning in Washington." Prepared for the Washington Coastal Marine Advisory Council, June 30, 2015. http://www.msp.wa.gov/wp-content/uploads/2014/02/WMSP_2015_small.pdf [Source type 11].

NOAA Coastal Services Center. "Washington State's Ocean Economy-A Profile Using the National Oceanic and Atmospheric Administration's Economics: National Ocean Watch (ENOW)." NOAA Coastal Services Center [Source type 11], 2014.

Butler, Kyle, Chris Fryday, Max Gordon, Yolanda Ho, Seth McKinney, Mori Wallner, and Ele Watts. "Washington's Working Coast: An Analysis of the Washington Pacific Coast Marine Resource-Based Economy." Keystone Project, University of Washington Environmental Management Certificate Program, 2013. http://media.wix.com/ugd/e2eea5_7a4796fc90c3f86ff0ae22e675bd6b55.pdf [Source type 11].

Existing ocean uses studies

Point 97, and Surfrider Foundation. "An Economic and Spatial Baseline of Coastal Recreation in Washington." Prepared for Washington Department of Natural Resources, May 2015. <http://publicfiles.surfrider.org/P97SurfriderWACoastalRecreationReport.pdf>. [Source type 9].

Industrial Economics Inc. "Marine Sector Analysis Report: Recreation and Tourism." Sector Analysis Report; Washington Department of Natural Resources Contract No. SC 14-327. Prepared for the Washington Coastal Marine Advisory Council, October 31, 2014. <http://msp.wa.gov/wp-content/uploads/2014/03/RecreationSectorAnalysis.pdf> [Source type 11].

Industrial Economics, Inc. "Marine Sector Analysis Report: Non-Tribal Fishing." Sector Analysis Report; Washington Department of Natural Resources Contract No. SC 14-327. Prepared for the Washington Coastal Marine Advisory Council, October 31, 2014. <http://www.msp.wa.gov/msp-projects/> [Source type 11].

Industrial Economics, Inc. "Marine Sector Analysis Report: Marine Renewable Energy." Sector Analysis Report; Washington Department of Natural Resources Contract No. SC 14-327. Prepared for the Washington Coastal Marine Advisory Council, October 31, 2014. <http://www.msp.wa.gov/msp-projects/> [Source type 11].

Industrial Economics, Inc. "Marine Sector Analysis Report: Aquaculture." Sector Analysis Report; Washington Department of Natural Resources Contract No. SC 14-327. Prepared for:

The Washington Coastal Marine Advisory Council, October 31, 2014. <http://msp.wa.gov/wp-content/uploads/2014/03/AquacultureSectorAnalysis.pdf> [Source type 11].

BST Associates. “Washington Coast Marine Spatial Planning Assessment of Shipping Sector: Final Sector Assessment.” Prepared for the Washington Department of Natural Resources, August 30, 2014. <http://msp.wa.gov/wp-content/uploads/2014/03/ShippingSectorAnalysis.pdf> [Source type 11].

Maps of coastal recreation, Point 97 and Surfrider Foundation. Available as data layers in the mapping application.

Maps of coastal commercial and recreational fishing activities, WDFW. Available as data layers in the mapping application.

Ecosystem indicators and status studies

Poe, Melissa R., Melissa K. Watkinson, Bridget Trosin, and Kevin Decker. “Social Indicators for the Washington Coast Integrated Ecosystem Assessment.” A report to the Washington Department of Natural Resources; Interagency Agreement No. IAA 14-204, 2015. http://www.msp.wa.gov/wp-content/uploads/2015/03/SeaGrant_SocialIndicatorsReport.pdf [Source type 11].

Andrews, Kelly S., J.M. Coyle, and Chris J. Harvey. “Ecological Indicators for Washington State’s Outer Coastal Waters.” Seattle, WA: Northwest Fisheries Science Center. Report to the Washington Department of Natural Resources, June 30, 2015. http://www.msp.wa.gov/wp-content/uploads/2015/03/NWFSC_EcosystemIndicatorReport.pdf [Source type 11].

Andrews, Kelly S., Chris J. Harvey, and Phillip S. Levin. “Conceptual Models and Indicator Selection Process for Washington State’s Marine Spatial Planning Process.” Conservation Biology Division, Northwest Fisheries Science Center, National Marine Fisheries Service, National Oceanic & Atmospheric Administration, June 30, 2013. http://www.msp.wa.gov/wp-content/uploads/2013/07/NOAA_NWFSC_ConceptualModel_FinalReport.pdf [Source type 11].

Decker, Kevin. “Economic Indicators Report.” Prepared for The Washington Coastal Marine Advisory Council by Washington Sea Grant, 2015. http://www.msp.wa.gov/wp-content/uploads/2015/03/SeaGrant_EconomicIndicatorReport.pdf [Source type 11].

Ecological surveys, studies, and models

Menza, C., J. Leirness, T. White, A. Winship, B. Kinlan, L. Kracker, J.E. Zamon, et al. “Predictive Mapping of Seabirds, Pinnipeds and Cetaceans off the Pacific Coast of Washington.” NOAA Technical Memorandum NOS NCCOS 210, 2016. http://www-stage.msp.wa.gov/wp-content/uploads/2016/12/Final_Report_NCCOS_MarineMammals_Birds.pdf [Source type 11].

Langness, Mariko, Phillip Dionne, Daniel Masello, and Dayv Lowry. “Summary of Coastal Intertidal Forage Fish Spawning Surveys: October 2012–October 2014.” FPA. Olympia, WA: Washington State Department of Fish and Wildlife, 2015. <http://www.msp.wa.gov/wp-content/uploads/2014/02/ForageFishReport.pdf> [Source type 9].

Marine mammal and bird geodatabases, WDFW 2014. Available as data layers in the mapping application.

Ecologically Important Areas analysis, WDFW 2016. See Chapter 3 of the MSP for summary of methods and results.

Oceanographic mapping, studies, and modeling

Seafloor data

- Inventory of existing seafloor data and prioritization of future mapping needs
- Seafloor atlas – habitat maps
<http://olympiccoast.noaa.gov/science/habitatmapping/habitatmapping.html>

Oceanographic conditions and trends, UW. <http://www.msp.wa.gov/msp-projects/ocean-conditions/>

Models of renewable energy technical suitability

Van Cleve, F.B., C Judd, A Radil, J Ahmann, and S.H. Geerlofs. “Geospatial Analysis of Technical and Economic Suitability for Renewable Ocean Energy Development on Washington’s Outer Coast.” Pacific Northwest National Laboratory, June 2013.

http://www.msp.wa.gov/wp-content/uploads/2013/07/PNNL_EnergySuitability_Final-Report.pdf [Source type 11].

Viewshed analysis

- Offshore Facilities Viewshed Map: <http://www.msp.wa.gov/wp-content/uploads/2015/06/CoastalViewshedSummaryMap.pdf>
- Methods for determining sightlines: http://www.msp.wa.gov/wp-content/uploads/2016/10/Viewshed_Final_Report_ONRC.pdf

Comparative analyses of renewable energy with existing uses/resources

Use Analysis, WDFW 2017. Uses different methods to compare the aggregate of existing ocean uses and resources with technical potential for renewable energy. See Chapter 3 of the MSP for summary of methods and results.