WASHINGTON COASTAL MARINE ADVISORY COUNCIL MEETING

Draft Summary

Wednesday, November 9, 2016 9:30 am – 3:30pm
Location: Port of Grays Harbor Commissioners Chambers, 111 S. Wooding St., Aberdeen, WA

Council Members Present	
Casey Dennehy, Recreation	RD Grunbaum, Conservation
Penny Dalton, WA Sea Grant	Rich Osborne, Science
Doug Kess, Pacific MRC	Sally Toteff, Dept. of Ecology
Garrett Dalan, Grays Harbor MRC	Larry Thevik, WDCFA
Mark Plackett, Citizen	Randy Lewis, Ports
Michal Rechner, DNR	Julie Horowitz, Governor's Office
Dale Beasley, Commercial Fishing	Corey Niles, WDFW
Brian Sheldon, Shellfish Aquaculture	Alla Weinstein, Energy Industry
Jessica Helsley, WCSSP	

Council Members Absent	
Tiffany Turner, Economic Development	Rod Fleck, N. Pacific MRC
Charles Costanzo, Shipping	Jeff Ward, Coastal Energy
Carol Ervest, Wahkiakum MRC	David Fluharty, Educational Institution
Joshua Berger, Dept. of Commerce	

Liaisons Present	
Katie Krueger, Quileute Tribe Liaison (phone)	

Others Present (as noted on the sign-in sheet)	
Marie Novak, Cascadia Consulting, Note-taker	Jessi Doerpinghaus, WDFW
Erica Bates, Dept. of Ecology	Katrina Lassiter, DNR
Ashleigh McCord, DNR	Kevin Decker, Washington Sea Grant
Gus Gates, Surfrider Foundation	Susan Gulick, Sound Resolutions (Facilitator)
Jennifer Hennessey, Ecology (WCMAC Staff)	Molly Bogeberg, The Nature Conservancy
Claire Dawson, Hershman Fellow at TNC	Kara Cardinal, The Nature Conservancy

1. Welcome & Introductions, Agenda Review

Garrett Dalan welcomed everyone to the meeting. All attendees introduced themselves and were invited to provide updates.

- The Grays Harbor MRC will be holding an oyster growing speaker series at Grays Harbor College November 15 from 6-8 pm. Casey Dennehy will send Susan Gulick a flyer to circulate.
- Alla Weinstein encouraged people to visit the Bureau of Ocean Energy Management (BOEM) website (boem.gov) to view requirements for project development.
- Comments on the Chehalis Basin Strategy Programmatic EIS are due on Nov. 14th. Jess Helsley invited people to call the office of the Salmon Partnership to provide comments.

- Rich Osborne noted that the harmful algal bloom traveling up the coast appears to have subsided.
- RD Grunbaum announced that Hoquiam is reviewing a shoreline substantial development permit for Contanda Terminals LLC (formerly Westway Terminals). Comments are due Nov. 19th. They and the Quinault Nation will be providing comments in opposition of any crude oil terminal proposals.
- Sally Toteff announced that there is a Dept. of Ecology grant program for spill response equipment caches. More information is available on Ecology's website. Also, there are multiple public comment opportunities for the proposed Cowlitz County coal export terminal, including NEPA, Clean Water Act permit application through the Army Corps of Engineers, and the Clean Water Act Permit through the Dept. of Ecology, which close at the end of November.
- Dale Beasley announced that a Texas-based company is conducting a risk assessment for oil transport along the Columbia River, however their risk model does not apply to the mouth of the Columbia River. He brought up these concerns to the company in a public meeting; their report will be out in December.

Adoption of September Meeting Summary

Susan asked for amendments to the September meeting summary.

- Larry Thevik requested to add a sentence to his update on page 2. He had also mentioned the supreme court case which may clarify ORMA and its application, and could have far-reaching effects. Larry also requested that there be a clarification that he was referring to indirect impacts including non-human impacts as part of NEPA on page 4 under the draft recommendations from the technical committee.
- Brian Sheldon clarified his comments in section 6, expressing concern that by including estuaries in critical areas, they might be removed from further data collection. He is also aware that there can't be a blanket ban on net penning but that there needs to be recognition of the risks associated with escapement, disease, and introduction of nonnative species. (Brian was not requesting a change to the meeting summary, but was providing additional information to WCMAC members)

! The summary was adopted as amended.

2. Draft Policy Recommendations – Susan Gulick

The technical committee developed draft language for the definition of "cumulative impacts," and proposed including ecological and other impacts. Definitions were taken from NEPA.

Questions and Comments

- Larry expressed concern that the definition of cumulative impacts is based primarily on actions which are human-caused, and lacks the connection between environmental variability that can exacerbate impacts from human action. He provided the example of domoic acid, caused by toxic plankton blooms, which have shortened or closed shellfish seasons, impacting fleets, making them more vulnerable to stressors caused by additional new uses. Jennifer Hennessey commented that one place to potentially include this concern is in the MSP policy recommendations about data gathering and adaptive management (4.1.3), requiring applicants to establish a baseline with up-to-date information.
- There was discussion about changes to the wording that would address these concerns, and the group decided on the following language change: *WCMAC recommends that cumulative impacts, <u>environmental baseline and variability,</u> and potential tipping points for harm to existing uses be considered when applying the planning and project review criteria required by RCW 43.143.030.*

! WCMAC members agreed to the proposed recommendation regarding cumulative impacts, as amended.

- Larry also proposed two changes to policy recommendations 1.2.7 and 1.3.4:

- 1.2.7: WCMAC recommends that prior to permitting a new applicant include an assessment of the potential for gear entanglement and, if permitted, require a plan for monitoring for entangled fishing gear or other debris, including a plan to mitigate impacts.
- 1.3.4: For projects that pose risk for invasive species introduction, WCMAC recommends applicants be required to provide a risk assessment for potential invasive species impacts and, if permitted, be required to prepare a prevention, monitoring and control plan.

- There was discussion about whether to make the language specific to the SEPA/NEPA review process, but the group agreed that there may be situations where an assessment should be conducted that would not fall within the SEPA/NEPA framework, so that it was better to leave it as it is.
- **!** WCMAC members agreed to the inclusion of changes to policy recommendation 1.2.7 and 1.3.4, adopting the revisions proposed by Larry.

Proposed Spatial Recommendations – Jennifer Hennessey

Jennifer Hennessey presented proposed spatial recommendations and solicited feedback, additional recommendations, and conceptual guidance for staff. Staff will use the guidance to develop draft spatial recommendations for inclusion in part 4 of the MSP as part of the Management Framework.

Questions and Comments

- Alla asked about inclusion of Bureau of Ocean Energy Management (BOEM) studies; Jennifer responded that there will be background chapters on marine renewables included in the MSP, including information from BOEM.
- Members asked that definitions of "high use" and "high intensity" be included, as well as consistent use of the terms "high use" and "high value use".
- Mike Rechner proposed the following language to replace the second sentence of proposed recommendation #2, "When proposing projects in state waters, applicants should seek to locate them so the project will avoid impacting the greatest number of existing uses and ecologically important areas, as the higher the number or intensity of uses impacted will result in a more difficult permitting process."
- Rich recommended including an index or table of contents to indicate where readers are in the MSP.
- Penny Dalton commented that it would be helpful to break up renewable energy recommendations into relevant parts for project developers (she provided an example of a renewable energy project in federal waters for which a cable only would pass through state waters).
- Larry recommended including gear entanglement zones as part of the Important, Sensitive, and Unique (ISU) areas definition under section F. Jennifer responded that the list of ISUs only includes areas for which they have data. Garrett commented that including it might lead to static zones even though gear entanglement areas could change seasonally. Larry withdrew his suggestion.
- Dale advocated for including community dependence as part of the definition of Important, Sensitive, & Unique areas (ISUs). Susan recommended that staff review existing WCMAC policy recommendations and compile those related to community dependency to ensure concerns about community dependence are covered adequately. The technical committee will review the list at a future meeting.
- Doug Kess asked about plans for a vessel traffic risk assessment on the Columbia River and recommended that the WCMAC invite someone to come and present. Sally offered to research and report back.

3. Post-MSP WCMAC Work Plan for 2017-2019 – Garrett Dalan

WCMAC has requested funding for the next biennium for activities after the MSP is finalized. The MSP is only one of multiple duties listed in the statute that created WCMAC. The group brainstormed ideas for a future work plan and discussed its role after the MSP.

- Members discussed the WCMAC's unique role in being able to convene critical conversations around issues that coastal communities are facing, and developing policy recommendations to address them. This could include hosting roundtable forums on specific issues and inviting legislators, agency staff, port representatives, community members, etc. to educate them about these issues, the various actors and their roles, data gaps, and potential solutions.
- Several members recommended developing a list of coastal research needs and priorities.
- Several topic ideas for future forums with presentations and discussions/workshops included:
    - Dredging
    - Existing management plans that are substantially inconsistent with the MSP (Katie Krueger could possibly share her work related to this)
    - Coastal erosion
    - Climate change resilience
    - Vulnerability assessments
    - Risks from hazardous materials transport
    - Vessel traffic risk and spill prevention & response

Questions and Comments:

- First identify what is already going on around certain issues so as not to duplicate other efforts. Make sure there is a value-add for WCMAC leadership, or piggy back on others.
- A subgroup could be formed (or the technical committee could be used) to develop the agenda and desired outcomes of these future meetings.
- Julie Horowitz will get clarification from the Governor's Office on the ability of WCMAC to host outreach seminars and the proper role for WCMAC, as a council under the Governor's office.
- Sally reminded members that the MSP is a living document and will need to be updated. She recommended having an MSP showcase every few years to educate people.
- RD commented on the need to serve as a conduit from project developers to policy makers to monitor and update the MSP and ensure that it remains relevant.
- Several members discussed the need to do outreach and education about the MSP to policy makers at the local level to help ensure that it is properly integrated with other tools and frameworks.
- Members agreed that if a WCMAC member receives notification of a project, they should notify the group in order to engage with the project developer.
- Randy recommended inviting developers to provide feedback on the Plan and its recommendations. This would provide them an opportunity to become familiar with the process, and raise any red flags for potential unintended consequences.
- Jennifer reminded members that the MSP provides information to support and apply federal consistency in state and federal waters, which project proponents will need to get from the State of Washington.

4. Updates

MRAC (Ocean Acidification Panel)

- In February there will be a Blue Ribbon Panel event hosted by MRAC. Garrett will ensure that the event is not held on the same day as WCMAC.

- There are three budget requests for MRAC in addition to the requested maintenance funding for WCMAC in the next biennium ($150K for facilitation, $25K for indicators):
    - 1) continued biological assessment for UW Ocean Acidification Center ($200K)
    - 2) continued native shellfish hatchery restoration funding ($400K)
    - 3) funding for Dept. of Ecology to add Puget Sound and coastal monitoring as part of baseline monitoring ($333K).
- The Olympic Coast National Marine Sanctuary is working with partners to establish an Olympic Coast Ocean Acidification sentinel site.

Technical Committee Update

- The technical committee has been working on updated policy recommendations around cumulative impacts and will continue to work on them. The next call is November 17, 2:30-4:30 pm, an agenda and call-in information are forthcoming.
- Alla briefed interested WCMAC members about a wind energy project her company is working on in California. Members commented that the presentation was very informative. Some members who could not make it asked if was recorded or whether it was possible to review the slides. Susan will check with Alla.
- Brian requested that the draft MSP include a definitions section that can be shared soon with other people in the shellfish industry for their feedback.
- Dale questioned whether one round of review for the preliminary MSP will be enough, and asked where data gaps will be identified in the plan. Jennifer clarified that there might be a stand-alone appendix for this purpose.
- Garrett suggested there may also be a need for more meetings or a working session in late March.

5. Upcoming Meetings

- The draft MSP will be discussed at the February 15 meeting.

! Members decided that the September 2017 meeting will be held September 27.

6. Public Comment

- Gus Gates thanked everyone for their continued time and efforts and reminded everyone that this Plan and process serves as a model for collaboratively addressing natural resource challenges. He emphasized the need to create a strong plan in a timely manner and continue to be leaders in this effort to protect sustainable uses, as well as the importance of conducting outreach on the MSP once it is finished.
- Claire Dawson said that the Nature Conservancy is working with WDFW to review data in ecologically important areas and ensure the information is sound. They also reviewed the entire Ecology chapter, and are open to future opportunities for collaboration, outreach, and data support.
- Julie Horowitz will be on leave for a few months. JT Austin from the Governor's Office will be filling in.
- Brian expressed concern about the Dept. of Health's automatic rainfall closures as a water quality management tool. He stated that these closures are not always founded, and have a negative impact on businesses.

Meeting adjourned at 3:17 pm.

Summary of Decisions:

! The September Meeting Summary was approved as amended.

- WCMAC members agreed to the proposed recommendation regarding cumulative impacts, as amended.
- WCMAC members agreed to the inclusion of changes to policy recommendation 1.2.7 and 1.3.4, adopting the revisions proposed by Larry.
- Members decided that the September 2017 meeting will be held September 27.

Upcoming Meetings

- February 15, 2017
- May 10, 2017
- September 27, 2017

Meetings will be held in Aberdeen unless otherwise noted

IN THE SUPREME COURT OF THE STATE OF WASHINGTON

QUINAULT INDIAN NATION, FRIENDS OF GRAYS HARBOR, SIERRA CLUB, GRAYS HARBOR AUDUBON, and CITIZENS FOR A CLEAN HARBOR, Petitioners, v. IMPERIUM TERMINAL SERVICES, LLC; CITY OF HOQUIAM; WASHINGTON STATE DEPARTMENT OF ECOLOGY; WESTWAY TERMINAL COMPANY, LLC; and WASHINGTON SHORELINES HEARINGS BOARD, Respondents.	No. 92552-6 En Banc Filed JAN 12 2017

OWENS, J. — Two companies applied for permits to expand their oil terminals on the shores of Grays Harbor. The expansion would facilitate the storage of additional fuel products, which would arrive by train or truck and depart by ocean-bound ship. The issue here is whether the Ocean Resources Management Act

(ORMA), chapter 43.143 RCW, applies to these expansion projects.[1] The Shoreline Hearings Board (Board) and the Court of Appeals held that ORMA does not apply to these projects based on limited definitions in the Department of Ecology's (DOE) ORMA implementation regulations. We hold that this interpretation improperly restricts ORMA, which was enacted to broadly protect against the environmental dangers of oil and other fossil fuels. The parties also contest whether these projects qualify as "ocean uses" or "transportation" under DOE's regulations. We hold that these projects qualify as both ocean uses and transportation. Finally, though not discussed by the parties or the Court of Appeals, these projects qualify as "coastal uses" under DOE's regulations. Accordingly, we reverse the Court of Appeals and remand for further review under ORMA's provisions.

FACTS

Westway Terminal Company LLC owns a terminal used for storing petroleum products in the Port of Grays Harbor within the city of Hoquiam. Grays Harbor and the areas along the rail and ocean vessel route contain many environmentally sensitive areas including streams, rivers, wetlands, and migratory bird habitats. Westway applied to the city of Hoquiam and DOE to expand its

[1] ORMA was originally passed in 1989 in the wake of the Nestucca and Exxon Valdez oil spills. When the legislature passed the law, it explicitly noted the danger that oil spills pose to the state's marine environment. LAWS OF 1989, 1st Ex. Sess., ch. 2.

existing bulk liquid storage terminal to allow for the receipt of oil trains, storage of crude oil from those trains, and outbound shipment of oil by vessel and barge. The crude oil would be shipped from the Port of Grays Harbor to regional refineries. Westway's expansion project is situated on the shores of both Grays Harbor and the Chehalis River in the city of Hoquiam. Construction of the proposed project will be at least 160 feet from the river.

Westway plans to expand its existing facility by constructing four aboveground storage tanks for storing crude oil. Each tank will have a capacity of 8.4 million gallons, meaning the entire Westway project will have a capacity of 33.6 million gallons. Westway also plans to expand its rail facility from two short rail spurs to four longer spurs with a total of 76 loading spots. Westway would also add a vapor combustion unit and a structural hose support system to accommodate loading tanker vessels with crude oil. Once complete, Westway's expanded terminal is estimated to receive 403.2 million gallons of oil per year. This is equivalent to two "unit train" transits (one loaded and one empty, with 120 railcars each) every three days. Westway's expansion is estimated to increase the amount of train traffic by up to 243 transits per year. Westway's expansion project is also estimated to increase ocean vessel traffic by up to 120 transits per year.

Imperium Terminal Services LLC operates a similar terminal facility next to Westway's in Grays Harbor, also adjacent to the Chehalis River. Like Westway, Imperium applied to expand its bulk liquid storage terminal to allow for the receipt, storage, and shipment of crude oil, biofuels, and other fuel products. This expanded facility "would be served by three independent modes of transportation: water, rail, and truck, each of which would provide pathways for inbound raw materials or outbound products." Admin. Record (AR) at 228, 524. Imperium's expansion would include construction of nine additional storage tanks, each with a storage capacity of 3.36 million gallons, for a total capacity of 30.24 million gallons. Approximately 6,100 feet of new track would be constructed to expand their current railyard. Two new pipes would also be constructed, connecting the tank farm with a preexisting shipping terminal. Finally, a marine vapor combustion unit would be installed in order to incinerate vapors displaced during vessel loading. The unit would overhang the harbor's waters.

Imperium estimated its expansion project would increase terminal operations up to two unit trains per day (one loaded and one empty), each consisting of 105 tank cars, and would result in up to 200 ships or barges a year. Combined, the Westway and Imperium expansion projects would increase vessel traffic by 520 transits per year and increase train traffic by 973 transits per year. This would be a

310 percent increase in vessel transits and a 133 percent increase in train transits per year through Grays Harbor.

In order to gain permission to begin these expansions, Westway and Imperium applied for substantial shoreline development permits (SSDPs). DOE and the city of Hoquiam worked as "co-leads," tasked with making a threshold determination of nonsignificance, determination of significance, or mitigated determination of nonsignificance (MDNS). The co-leads issued an MDNS to both Westway and Imperium for their proposals and issued SSDPs for both terminals in April and June 2013. Petitioners[2] appealed the permits and MDNS to the Board, arguing in part that DOE and the city of Hoquiam failed to consider both the State Environmental Policy Act (SEPA), chapter 43.21C RCW, and ORMA before issuing the MDNSs.

Petitioners and respondents[3] all filed motions for partial summary judgment. Petitioners claimed that respondents violated SEPA because they ignored the cumulative impact of their own projects, as well as the foreseeable additional impact of a third, similar project when assessing environmental impact at the "threshold determination stage." *Id.* at 1142-52. The Board granted petitioners'

[2] Petitioners are Quinault Indian Nation, Friends of Grays Harbor, Sierra Club, Grays Harbor Audubon, and Citizens for a Clean Harbor.
[3] Respondents are Imperium, the city of Hoquiam, DOE, Westway, and the Board.

motion for partial summary judgment, holding that respondents' failure to account for the cumulative impact of all three projects made the issuance of the MDNS clearly erroneous. Respondents have not challenged this finding before this court.[4]

However, the Board also granted respondents' motion for partial summary judgment, determining that ORMA was not applicable to the proposal. It reasoned that ORMA only applies to ocean-based projects because of the ORMA implementing regulation promulgated by DOE, WAC 173-26-360. Using the definitions from that regulation, it noted that ORMA was designed to regulate activities in the ocean, such as extraction of oil, gas, and minerals, and concluded that the proposed Westway terminal did not fall within the definition.

Petitioners appealed this summary judgment order to the Court of Appeals, which accepted direct review. *Quinault Indian Nation v. Imperium Terminal Servs., LLC*, 190 Wn. App. 696, 360 P.3d 949 (2015). The Court of Appeals affirmed the Board's grant of summary judgment. *Id.* at 700. It found that the Westway and Imperium proposals were not subject to ORMA because they are not "ocean uses" or "transportation uses" under WAC 173-26-360(3) and (12). *Id.* at

[4] Because this third project withdrew its plans for construction, the Court of Appeals determined the issue was moot. Respondents have not further challenged that determination. *Quinault Indian Nation v. Imperium Terminal Servs., LLC*, 190 Wn. App. 696, 703-04, 360 P.3d 949 (2015).

712-17. The court reasoned that respondents' projects were not "ocean uses" because the terminals did not constitute a "primary activity occurring on Washington's coastal waters." *Id.* at 713. The court did not directly address ORMA's plain language or whether the Board was required to apply it to respondents' proposals. The court instead noted that ORMA does not contain any definition of "ocean uses," noted further that neither party had "challenged this regulation," and declined to analyze the statute further. *Id.* at 713 n. 8.

Petitioners sought review by this court, which was granted. *Quinault Indian Nation v. City of Hoquiam,* 185 Wn.2d 1017, 369 P.3d 500 (2016). We now find that the Board and Court of Appeals erred when finding that ORMA does not apply to respondents' proposed projects.

ISSUES

1. Do respondents' proposed projects trigger review under ORMA's statutory framework, RCW 43.143.030?

2. Do these proposed projects constitute "[o]cean uses" or "transportation" under WAC 173-26-360(3) and (12)?

3. Do these proposed projects constitute "coastal uses" under WAC 173-26-360(6)?

STANDARD OF REVIEW

Summary judgment is proper if there is no genuine issue as to any material fact, the moving party is entitled to judgment as a matter of law, and reasonable minds could reach only one conclusion from the evidence presented. *Bostain v. Food Express, Inc.*, 159 Wn.2d 700, 708, 153 P.3d 846 (2007). We review grants of summary judgment de novo. *Michak v. Transnation Title Ins. Co.*, 148 Wn.2d 788, 794-95, 64 P.3d 22 (2003).

The issue here is whether the Board properly granted summary judgment when it found that respondents' projects were not subject to review under ORMA. Interpreting ORMA is an issue of first impression for this court. We interpret statutes de novo, as a question of law. *Dep't of Ecology v. Campbell & Gwinn, LLC*, 146 Wn.2d 1, 9, 43 P.3d 4 (2002). When interpreting statutes, our fundamental purpose is to ascertain and carry out the intent of the legislature. *In re Marriage of Schneider*, 173 Wn.2d 353, 363, 268 P.3d 215 (2011). If a statute's meaning is plain on its face, "then the court must give effect to that plain meaning as an expression of legislative intent." *Campbell & Gwinn*, 146 Wn.2d at 9-10.

ANALYSIS

1. *Respondents' Proposed Facility Expansion Projects Trigger Review under ORMA's Statutory Framework, RCW 43.143.030*

The Shoreline Management Act of 1971 is an extensive regulatory scheme designed to help local governments manage development along shorelines. Ch. 90.58 RCW. ORMA is integrated within this framework. *See* RCW 90.58.195(2) (counties, cities, and towns with coastal waters must ensure that their shoreline master programs "conform with RCW 43.143.010 and 43.143.030 and with the department of ecology's ocean use guidelines"). The purpose of ORMA is "to articulate policies and establish guidelines for the exercise of state and local management authority over Washington's coastal waters, seabed, and shorelines." RCW 43.143.010(1).

A. ORMA Is a Balancing Tool That Must Be Liberally Construed

ORMA is a balancing tool intended to be used by local governments to weigh the commercial benefits of coastal development against the State's interest in protecting coastal habitats and conserving fossil fuels. In its findings section, the legislature identified the ecological importance of our state's coastal habitats: "Washington's coastal waters, seabed, and shorelines are among the most valuable and fragile of its natural resources." RCW 43.143.005(1). The legislature also emphasized the commercial utility of industries dependent on the ocean and

shoreline. RCW 43.143.005(2). While recognizing the importance of commercial uses, the legislature nonetheless signaled that commercial endeavors may be prohibited if they are potentially destructive to the environment. RCW 43.143.005(3) ("Washington's coastal waters, seabed, and shorelines are faced with conflicting use demands. Some uses may pose unacceptable environmental or social risks at certain times.").

The purpose of statutory interpretation is to give effect to the intent of the legislature. *Campbell & Gwinn*, 146 Wn.2d at 9. We have historically found that when passing laws that protect Washington's environmental interests, the legislature intended those laws to be broadly construed to achieve the statute's goals. *See, e.g., Kucera v. Dep't of Transp.*, 140 Wn.2d 200, 212, 995 P.2d 63 (2000) (noting that SEPA requires an environmental impact analysis even if a party's primary motivation for such analysis is economic in nature); *Leschi Imp. Council v. Wash. State Highway Comm.*, 84 Wn.2d 271, 277, 525 P.2d 774 (1974) (plurality opinion) (noting SEPA's application to "broader questions of environmental impact"). ORMA is designed to address environmental threats to our coastal waters and specifically addresses the threats posed by increased expansion of the fossil fuel industry along the Pacific Coast. *See* RCW 43.143.010. The language of the statute indicates that the legislature intended it to

combat current environmental dangers and to preemptively protect the coastline from future environmental risks. Because ORMA addresses broad concerns surrounding the environmental dangers of collecting and transporting oil near our shores, it requires a liberal construction.

B. Under the Plain Language of the Statute, ORMA Applies to Respondents' Projects

In this case, the Court of Appeals neglected to apply the plain language of the statute, skipping directly to the definition of "ocean use" in WAC 173-26-360(3). *Quinault*, 190 Wn. App at 711-12. In so doing, the Court of Appeals failed to consider the legislature's explicit direction as written in the statute. In relevant part, RCW 43.143.030 states:

> (1) When the state of Washington and local governments develop plans for the management, conservation, use, or development of natural resources in Washington's coastal waters, the policies in RCW 43.143.010 shall guide the decision-making process.
>
> (2) Uses or activities that require federal, state, or local government permits or other approvals and that will adversely impact renewable resources, marine life, fishing, aquaculture, recreation, navigation, air or water quality, or other existing ocean or coastal uses, may be permitted only if the criteria below are met or exceeded . . . .

The plain text of this statute includes respondents' terminal expansion projects. These shoreline management plans include "plans for the management, conservation, use, or development" of Washington's environment. RCW

43.143.030(1). Further, they make use of "natural resources in Washington's coastal waters" as defined in the statute. *Id.* Respondents' projects are designed to transfer tens of millions of gallons of petroleum products across the threshold of Washington's coast. The projects thus constitute "[u]ses or activities" that require government permits and may "adversely impact renewable resources, . . . navigation, . . . or other existing ocean or coastal uses" due to the dramatic increase in both ocean vessel and rail traffic. RCW 43.143.030(2).

Nonetheless, Westway argues that ORMA's review criteria are narrowly triggered by the "location and nature of the activity." Suppl. Br. of Resp't Westway at 4. Likewise, Imperium claims respondents' projects are activities *on* coastal waters rather than *in* the water itself. *See* Suppl. Br. of Resp't Imperium at 10-12. The city of Hoquiam and DOE make similar arguments, indicating that the statutory language of ORMA shows it applies only to projects that sit "in" coastal waters. Suppl. Br. of Resp'ts Hoquiam & DOE at 6-14. Thus, according to respondents, because the bulk of these projects are several feet adjacent to the coast, and because any additions would be made to already existing facilities in Grays Harbor, ORMA should not apply. These arguments construe the statute too narrowly.

The plain language of RCW 43.143.030(1) anticipates respondents' projects. To hold that the statute does not apply to a storage facility transferring oil products from land transport to sea transport because the project is not literally "in" the ocean would be an overly narrow reading of the text. As explained above, the terminal expansion projects involve vast quantities of petroleum products. They receive petroleum and other fuel products on trains or trucks, transfer the products to temporary holding tanks, and then pipe the products into waiting vessels for further transport. The pipes that these products flow through extend from the coast onto a terminal, a structure located in Grays Harbor. The pipes then deposit the products onto ocean-bound tankers moored to the terminal. Further, the proposals include adding new loading arms and a combustion system on an existing dock. Thus, though the projects themselves are not literally "in" Washington's coastal waters, they would pump petroleum *over* those coastal waters, transfer them into vessels floating *in* those coastal waters, and require additional transfer installations on a dock located *on* those coastal waters. As noted above, we must construe this statute liberally. Therefore, the transfer of these products into these vessels and the construction of additional facilities constitute "management, conservation, use, or development of natural resources in Washington's coastal waters." RCW 43.143.030(1).

C. Other ORMA Provisions Indicate That the Projects Require Review under the Statute

RCW 43.143.030(2) also supports applying ORMA to these projects. It indicates that uses that (1) require government permits and (2) will adversely impact renewable resources, navigation, or other existing "ocean or coastal uses" are subject to ORMA. Respondents' projects require several government permits before construction can commence. They pose a great risk of adversely impacting renewable resources with their increased threat of environmental harm. They may also adversely impact navigation or preexisting ocean or coastal uses in the area by creating a substantial increase in ocean vessel and rail transits and increased risk of oil spills on coastal waters and coastline. Because of this, the projects are subject to ORMA review.

The plain language of RCW 43.143.010(5) further enforces this interpretation. RCW 43.143.010 explicitly lays out the legislature's policy and intent when it passed ORMA. Several subsections indicate an intent to regulate and limit collection and use of fossil fuels off our shores. RCW 43.143.010(1)-(4). However, subsection (5) demonstrates that the legislature did not intend ORMA to be restricted to just these causes. In that subsection, the legislature notes that it was not its current intent to "include recreational uses or currently existing commercial uses involving fishing or other renewable marine or ocean resources

within the uses and activities [that require review as] set forth in RCW 43.143.030." RCW 43.143.010(5). However, this language leaves open the possibility that these other recreational and commercial uses could be covered in the future. By leaving this opening, the legislature indicated that it considered, and left available, the possibility of incorporating activities other than offshore drilling under ORMA. This signals the broad spectrum of activities the legislature intended the statute to cover. Because of this, RCW 43.143.010(5) indicates that the legislature did not intend to preclude respondent's projects from undergoing ORMA review.

The policy encapsulated in ORMA is to carefully review development projects that involve nonrenewable resources and pose a risk of damage to the environment in Washington's sensitive coastal waters. Respondents' projects clearly fall within that broad policy. The projects might pose a threat to the coastline because of the massive quantities of fuel transferred from land to sea and the risk of that fuel contaminating our environment.

Therefore, we find that the plain text of the statute expresses the intent that respondents' projects be reviewed pursuant to ORMA.

2. *Respondents' Proposed Facility Expansion Projects Qualify as "Ocean Uses" and "Transportation" under WAC 173-26-360(3) and (12)*

Even if the statute were ambiguous, we could resolve the issue under DOE's promulgated rules. If a statute is ambiguous, an agency's promulgated rules help our interpretation because they "'fill in the gaps' where necessary to the effectuation of a general statutory scheme." *Hama Hama Co. v. Shorelines Hr'gs Bd.*, 85 Wn.2d 441, 448, 536 P.2d 157 (1975). We apply our normal rules of statutory construction to administrative rules and regulations. *Cannon v. Dep't of Licensing*, 147 Wn.2d 41, 56, 50 P.3d 627 (2002). This court further gives rules and regulations promulgated by administrative bodies a rational and sensible interpretation. *Id.* at 57. Here, DOE's own ocean management rules support the conclusion that ORMA applies to respondents' projects.

A. Respondents' Projects Are "Ocean Uses"

DOE has established a set of ocean management rules that help determine when ORMA applies to particular projects and proposals. In these rules, DOE provides definitions for both "ocean uses" and "transportation." WAC 173-26-360(3), (12). The parties contest whether respondents' projects fall under either definition. We hold that these projects are contemplated under both definitions.

While we give agencies great deference to their interpretation of rules within their area of expertise, we may substitute our interpretation of the law for that of an

agency. *Port of Seattle v. Pollution Control Hr'gs Bd.*, 151 Wn.2d 568, 593, 90 P.3d 659 (2004). It is valid for an agency to "fill in the gaps" via statutory construction as long as the agency does not effectively amend the statute. *Hama Hama*, 85 Wn.2d at 448. In this case, DOE improperly contorted the statute when it reasoned that respondents' projects are not "ocean uses" or "transportation." The regulation defines "ocean uses" as

> activities or developments involving renewable and/or nonrenewable resources that occur on Washington's coastal waters and includes their associated off shore, near shore, inland marine, shoreland, and upland facilities and the supply, service, and distribution activities, such as crew ships, circulating to and between the activities and developments.

WAC 173-26-360(3). Here, respondents' construction projects are designed to increase petroleum storage and transportation through facilities built on the edge of Grays Harbor. Such projects are precisely "developments involving . . . nonrenewable resources that occur on Washington's coastal waters." *Id.* DOE's contrary interpretation incorrectly narrows the definition of "ocean uses," thereby improperly altering the intent of ORMA.

Likewise, the Court of Appeals' holding that the projects were not ocean uses was error. *Quinault Indian Nation*, 190 Wn. App. at 713. The terminals not only sit as close as 160 feet from the water, but they extend *over* the water. *See* AR at 124, 228 (pipelines would connect the tank farms and overhang the water to load

vessels in the port); *see also id.* at 757 (aerial picture of facilities indicating the same). Because these projects sit on the shores of Grays Harbor and overhang the water, we find that respondents' projects qualify as "[o]cean uses" pursuant to WAC 173-26-360(3). To conclude otherwise would permit DOE's interpretation of ORMA to effectively amend the statute by substantially narrowing its scope.

Both DOE and the city of Hoquiam argue that the definition of "ocean uses" does not apply to respondents' projects because these projects do not literally sit *on* Washington's coastal waters. As explained above, this argument misreads RCW 43.143.030, which states that uses involving nonrenewable resources on Washington coastal waters that require permits, and that will adversely impact navigation or other ocean or coastal uses, must first meet ORMA's review criteria. Further, DOE and the city's argument ignores DOE's own rule stating that local governments "may permit *ocean or coastal uses* and activities as a substantial development . . . *only if*" ORMA's criteria are met. WAC 173-26-360(6) (emphasis added). Accordingly, because these projects are developments that use nonrenewable resources and are situated on Washington's coast, we find that they qualify as "ocean uses."

B. Respondents' Projects Are "Transportation"

Respondents' projects also constitute "transportation" under DOE's ocean management regulations. Under DOE's ocean management framework, "ocean transportation" includes

> such uses as: Shipping, transferring between vessels, and offshore storage of oil and gas; transport of other goods and commodities; and offshore ports and airports. The following guidelines address transportation activities that originate or conclude in Washington's coastal waters *or* are transporting a nonrenewable resource extracted from the outer continental shelf off Washington.

WAC 173-26-360(12) (emphasis added). In this case, an integral part of respondents' projects is loading petroleum products onto ocean vessels to be shipped to refineries. Neither party disputes this fact. This is clearly a transportation activity that "originate[s] or conclude[s]" in Washington's coastal waters. *Id.* The activity must originate or conclude in Washington's waters *or* include a nonrenewable resource from Washington's continental shelf; it need not do both. *Id.* However, the Court of Appeals held that the projects cannot be "transportation" because they are not "'ocean use[s].'" *Quinault Indian Nation*, 190 Wn. App. at 714.

We find instead that respondents' projects *are* "ocean uses" and thus also qualify as "transportation." Once built, these projects will result in an estimated 310 percent increase in vessel traffic through Grays Harbor annually. Indeed, the expanded facilities would be served by three separate modes of transportation:

water, rail, and truck. Therefore, respondents' terminals constitute "transportation" because they serve no other purpose than to facilitate and increase the movement of petroleum products across both the ocean via tanker ships and land via rail.

3. *Respondents' Proposed Facility Expansion Projects Are "Coastal Uses" under WAC 173-26-360(6)*

While the parties dispute whether the projects are "ocean uses" under the WAC, neither party has addressed whether the projects qualify as "coastal uses" under WAC 173-26-360(6). Though no party has discussed this provision in their briefing, we have the "inherent authority to consider issues not raised by the parties if necessary to reach a proper decision." *Alverado v. Wash. Pub. Power Supply Sys.*, 111 Wn.2d 424, 429, 759 P.2d 427 (1988). Here, it is clear that the language of the regulation, if applied to respondents' proposals, would trigger ORMA review.

DOE's rules read in relevant part, "[l]ocal government and the department may permit *ocean or coastal uses* and activities as a substantial development, variance or conditional use *only if the criteria of RCW 43.143.030(2)* listed below are met. . . ." WAC 173-26-360(6) (emphasis added). "Coastal use" is not defined in DOE's ocean management rules, nor is it defined in ORMA. To determine the meaning of an undefined term, we may look to standard English dictionaries. *Kitsap County v. Allstate Ins. Co.*, 136 Wn.2d 567, 576, 964 P.2d 1173 (1998). In

standard English, "coast" means "land immediately abutting the sea" and "coastal" means "of or relating to a coast" or "located on or near a coast." WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 433 (2002). In this case, it makes common sense to conclude that the respondents' proposed terminal expansion projects on the shores of Grays Harbor constitute "coastal uses" pursuant to WAC 173-26-360(6). Based on the plain meaning of the text, DOE intended ORMA to be considered before permitting construction projects along Washington's shores or coasts. Therefore, we hold that the administrative rules clearly intended its development projects, both ocean and coastal, be reviewed under ORMA.

Respondents' argument that ORMA does not apply to their projects because they are not "ocean uses" ignores the fact that ORMA *does* apply to "coastal uses" under both the statutory and administrative frameworks. Both ORMA and DOE's promulgated rules for ocean management plainly include coastal uses. The Court of Appeals erred when finding that ORMA does not apply to respondents' projects because they are not "ocean uses." In doing this, the Court of Appeals reads "coastal use" out of the statute entirely. Even if one could find that these projects do not qualify as "ocean uses" under ORMA, respondents make no argument that their projects are not "coastal uses" under either the RCWs or WACs. Respondents cannot argue that their projects are not "ocean uses" and then ignore

their qualification as "coastal uses" simply to evade ORMA review. Indeed, the construction sites sit on the shores of Grays Harbor, as close as 160 feet from the Chehalis River. Because respondents' projects abut the waters of both Grays Harbor and the Chehalis River, these projects constitute "coastal uses" pursuant to WAC 173-26-360(6).

CONCLUSION

The issue here is whether respondents' proposed expansion of fuel storage terminals on the shores of Grays Harbor require review under ORMA. We hold that they do.

First, the plain language of RCW 43.143.030 shows the legislature intended ORMA to apply in this case. The purpose of ORMA is to carefully review development projects that involve nonrenewable resources and pose a risk of damage to the environment in Washington's coastal waters. Because the entire purpose of respondents' projects is to store and transfer fuel from Washington's coast to Washington's waters, the projects fit squarely within ORMA's broad reach. Second, the proposed terminal expansion projects also qualify as "[o]cean uses" and "transportation" as defined in WAC 173-26-360(3) and (12). These projects will increase transportation of petroleum products over land and sea. To say they do not constitute ocean uses or transportation would be to improperly narrow the intent of

the law. Finally, although not addressed by the parties, respondents' proposed projects qualify as "coastal uses" under WAC 173-26-360(6). A plain reading of the rule shows respondents' projects constitute coastal uses because they are facilities situated along the waters of Grays Harbor and involve using the coast to store and transport fossil fuel products.

Accordingly, we reverse the Court of Appeals and remand the case for further proceedings consistent with this opinion.

WE CONCUR:

WCMAC:
Preliminary Draft MSP Overview - Introduction (Part 1) and Baseline Information (Part 2)
February 15, 2017

BACKGROUND

The Marine Spatial Plan contains several major sections, including a general introduction (Part 1), baseline information on existing uses and resources (Part 2), summaries of spatial analyses (Part 3) and a management framework (Part 4). See the updated Table of Contents for the Marine Spatial Plan (February 2017) for more details. The following provides an overview on the content included in Parts 1 and 2:

PART 1 - INTRODUCTION

The preliminary draft's introduction (Part 1) provides background on the purpose, requirements, guiding principles, and planning process for the Marine Spatial Plan. It also provides a summary of coastal tribes and tribal treaty rights and the Olympic Coast National Marine Sanctuary.

PART 2 – BASELINE INFORMATION: CURRENT CONDITIONS AND FUTURE TRENDS

Baseline information on the MSP study area is described in Part 2 of the preliminary draft plan. It includes a narrative description about current conditions, natural and cultural resources, socio-economics, existing uses, and potential new uses. Information on future trends affecting uses and resources is included (where available), including a section on climate change.

Each existing use section includes the following information (when available):

- Summary of history and current uses
- Economic impact of uses
- Related infrastructure
- Future trends

Maps referenced throughout Part 2 are located in a separate Maps section. Part 2 constitutes the bulk of the preliminary draft Marine Spatial Plan in terms of content and length.

Separate data summaries provide an overview and reminder of the major data sources for existing uses and resources as well as an overview on some of the challenges and gaps known about the data. In the next draft of the plan, these will be more fully described in an appendix on data sources, methods and gaps.

PROCESS FOR DEVELOPING PRELIMINARY CONTENT

- Research: gathered and reviewed scientific literature, reports, journals; reviewed outputs from MSP projects; conducted targeted outreach
- Writing/Editing: initial reviews from tribes, agencies, scientists, user groups, WCMAC members

QUESTIONS TO CONSIDER DURING PRELIMINARY DRAFT PLAN REVIEW

- Are there missing or outdated data? If so, what are the citations/sources for missing or more current data?

WCMAC:
Preliminary Draft MSP - Overview Spatial Analyses (Part 3)
February 15, 2017

BACKGROUND

The Marine Spatial Plan contains several major sections, including a general introduction (Part 1), baseline information on existing uses and resources (Part 2), summaries of spatial analyses (Part 3) and a management framework (Part 4). See the updated Table of Contents for the Marine Spatial Plan (February 2017) for more details. The following provides an overview on the content included in Part 3:

PART 3 – SPATIAL ANALYSES

Several analyses were conducted to provide additional information relevant to present and potential future conditions in the MSP study area. Analyses were selected fill known data gaps, and to fulfill several of the requirements outlined in RCW 43.372.040(6)(c). The results provide a way to assess relationships between different uses and factors, and describe information that was not available through empirical datasets. The results include maps and other data products that inform and support many of the spatial and management recommendations outlined later in the plan (see Management Framework - Part 4).

This section of the preliminary draft summarizes the data, tools and methods used to perform analyses that have contributed to the development of plan recommendations and the planning process as a whole. Each section also provides a brief overview of important results, and highlights some of the products from three projects completed to support Marine Spatial Planning in Washington:

1. Ecological modeling of seabird and marine mammal distribution by NOAA
2. Ecologically Important Areas (EIA) modeling
3. A use analysis comparing the location and intensity of existing uses with technical suitability for offshore renewable energy.

Specific recommendations are not represented in this section – they are described in detail in the management framework (Part 4).

PROCESS FOR DEVELOPING PRELIMINARY CONTENT

- Science Advisory Panel, tribes and other scientists were consulted for input on data availability, treatment of data, and modeling methods.
- Multiple briefings for WCMAC on analyses, draft outputs and products.
- Workshops on fisheries data and examples for use analysis.

QUESTIONS TO CONSIDER DURING PRELIMINARY DRAFT PLAN REVIEW

- Is it clear what data, methods, and key products resulted from the various analyses? If not, what additional information would help clarify how the analyses were produced?

WCMAC:
Preliminary Draft MSP – Overview of Draft Management Framework (Part 4)
February 15, 2017

BACKGROUND

The Marine Spatial Plan contains several major sections, including a general introduction (Part 1), baseline information on existing uses and resources (Part 2), summaries of spatial analyses (Part 3) and a management framework (Part 4). See the updated Table of Contents for the Marine Spatial Plan (February 2017) for more details. This overview provides an introduction to the structure and basic content of the draft management framework (Part 4).

PART 4 – MANAGEMENT FRAMEWORK

The draft management framework (Part 4) guides how the Marine Spatial Plan is applied to new ocean uses. It provides:

- The existing policies, authorities and requirements that guide implementation of the MSP;
- The process for reviewing potential new ocean uses; and
- The substantive requirements and recommendations for evaluating new ocean uses through different phases of project review.

The draft management framework also summarizes other activities that will be taken to assist in monitoring, evaluation, and revision of the marine spatial plan.

WCMAC provided recommendations for the state to consider incorporating into the Marine Spatial Plan. These recommendations address different aspects of reviewing a new ocean use proposal, such as:

- Process - involving affected ocean users, other stakeholders, and the public.
- Data and information needed from an applicant.
- Effects that should be assessed and addressed.
- Plans to prevent, monitor and respond to various risks.

State agencies have been working to integrate WCMAC's recommendations and existing state policies and regulations into the relevant sections of the draft management framework.

Below is a revised outline for the draft management framework. The information below each title provides a short introduction to the content that will be in that section.

4. MARINE SPATIAL PLAN AND MANAGEMENT FRAMEWORK.

4.1 - Information on existing policies, authorities and requirements that guide implementation of the MSP.

This section provides background on the Management Framework, including:

- Introduction of the purpose, scope, and structure of the management framework
- Requirements to implement the Final MSP
- Existing state ocean policies, permit criteria and regulations
- Relationship of Marine Spatial Plan to other existing state and local authorities and plans
- How the MSP builds upon Washington's existing Coastal Zone Management Program

4.2 - Process for reviewing and consulting on ocean use proposals and other state implementation activities.
This section identifies the activities the state will undertake to implement the Marine Spatial Plan. These activities primarily fall into two categories: 1) Reviewing proposals for new ocean uses and 2) Other activities that assist in monitoring, evaluation, adaptation and revision of the plan.

Section 4.2.1 provides an overview of the process for reviewing proposed new ocean uses, while later sections (Sections 4.3 - 4.8) provide spatial designations, standards, requirements, and recommendations that apply to proposed new ocean uses during different phases of the process.

Section 4.2.2 outlines the other activities the state will take to implement the Marine Spatial Plan (i.e. "other recommendations" discussed at September 2016 WCMAC meeting).

4.3 - Spatial data, designations and recommendations
This section provides the spatial recommendations and designations. This information can be used by applicants and agencies:

- To understand spatial limitations, potential conflicts and interactions.
- To inform project siting, development and design.
- To identify appropriate parties to consult regarding potential proposals.

4.4 – Inventory Content
This section outlines the preliminary information needed in an application for ocean use projects.

4.5 - Effects Evaluation
This section outlines the requirements for applicants to provide a written evaluation of the potential adverse effects associated with the proposed project, including economic, social, cultural and ecological effects and cumulative effects.

4.6 – Review standards
This section provides the detailed review standards for applicants and for agencies to consider in determining possible significant adverse effects from an ocean use project on coastal uses and resources. An applicant's written effects evaluation (Section 4.5) must address compliance with the standards noted in this section and any specific standards that apply to the particular type of use (Section 4.8).

4.7 – Project construction and operation plans
This section outlines the different plans that will be required, including construction and operation, contingency, inspections, monitoring, adaptive management, decommissioning and financial assurance.

4.8 – Standards specific to new use type
This section outlines the standards and recommendations that are specific to particular types of uses to address their different types of potential impacts.

WCMAC:
Preliminary Draft MSP – Overview of Draft Management Framework (Part 4)
February 15, 2017

PROCESS FOR DEVELOPING CONTENT

- WCMAC translated concerns about new use impacts into problem statements, developed policy recommendations to address those concerns, and provided input on draft spatial recommendations.
- Staff incorporated WCMAC recommendations and existing state policies and regulations into the management framework – a process for assessing new ocean uses.
- WCMAC Technical Committee – recent calls have dealt with questions and discussion about the draft management framework.

QUESTIONS TO CONSIDER DURING PRELIMINARY DRAFT PLAN REVIEW

- Are there any recommendations included that you can't live with?
- Are there additional recommendations that should be included (i.e. what's missing)?

Overview: Marine Spatial Plan Contents

February 2017 Draft

1. INTRODUCTION

This section provides background on the purpose, requirements, guiding principles, and planning process.

1.1. Purpose and need for the Marine Spatial Plan
1.2. Marine Waters Management and Planning Act requirements
1.3. Plan goals and objectives
1.4. Planning process summary
1.5. MSP Study Area
1.6. Tribes – treaty rights
1.7. Olympic Coast National Marine Sanctuary

2. CURRENT CONDITIONS AND FUTURE TRENDS

This section provides a detailed narrative description about current conditions, existing uses, and potential new uses. Each sub-section will include maps and other types of data (e.g. charts, graphs, tables) when available.

Each existing use section will include the following information when available:

- Summary of history and current uses
- Maps of uses and resources
- Economic impact of uses
- Related infrastructure
- Future trends

Each potential new or expanded use section will likely include the following information when available:

Summary of History, Current and Emerging Technology, Related Infrastructure, Potential Benefits and Use Compatibilities, Potential Environmental Effects, Potential Human Use Conflicts, Permitting, Resource Potential, Future Trends and Factors

2.1. Ecology of Washington's Pacific Coast
2.2. Cultural and Historical Resources
2.3. Socio-Economic Setting
2.4. Fisheries
2.5. Aquaculture
2.6. Recreation and Tourism
2.7. Marine Transportation, Navigation, and Infrastructure
2.8. Military Uses
2.9. Research and monitoring activities within the Plan area
2.10. Potential New/Expanded Uses
  2.10.1. Renewable Energy
  2.10.2. Offshore Aquaculture
  2.10.3. Dredge Disposal in New Locations
  2.10.4. Marine Product Extraction
  2.10.5. Mining- Sand and Gravel Mining and Gas Hydrate Mining
2.11. Climate Change

3. SPATIAL ANALYSES

This section provides a summary of the data sources, methods and interpretations of key outputs of the spatial analyses completed to support planning objectives and recommendations.

3.1. Seabird and marine mammal ecological modelling
3.2. Ecologically Important Areas Analysis
3.3. Use Analysis

4. MANAGEMENT FRAMEWORK.

This section provides background on existing state authorities, as well as the recommended processes, information and spatial designations. It also includes an adaptive management strategy to ensure the plan adapts to future changes, new information, etc.

4.1. Information on existing policies, authorities and requirements that guide implementation of the MSP.
4.2. State Plan Implementation
  4.2.1. Processes for coordination, review and consultation on ocean use proposals
  4.2.2. Other state implementation activities, including ecosystem indicators, plan monitoring, revisions and adaptive management.
4.3. Spatial designations and information to understand spatial limitations, potential conflicts and interactions; to inform project siting, development and design; and to identify appropriate parties to consult regarding potential proposals.
4.4. Project and site-specific information requirements
4.5. Contents of a written effects evaluation
4.6. Review standards and design considerations
4.7. Project construction and operation plans
4.8. Standards specific to new use type

5. ENVIRONMENTAL ASSESSMENT/SEPA REQUIREMENTS

(this may be a separate document)

6. APPENDICES

The appendices may include technical reports prepared as background for the MSP as well as statutes, guidelines, and other relevant documents.

Appendix A – Plan Maps
Appendix B – WCMAC Recommendations
Appendix C - Data Sources, Methods and Gaps
Appendix D – Definitions/Glossary
Appendix E - Acronyms

DATA SUMMARY: AQUACULTURE

Marine spatial planning (MSP) is a process for gathering information on coastal and ocean activities and environments, providing recommendations for siting new ocean uses, creating a process for coordinating across all levels of government, and ensuring stakeholder input on new ocean uses in a comprehensive plan.

For more detailed information on the planning process in Washington, specific data, or projects, or to use the interactive MSP spatial data viewer, please visit the Marine Spatial Planning website at www.msp.wa.gov. Links are also provided to some project reports or data sources below.

AQUACULTURE:

The following data provides information related to aquaculture activities within the study area. Currently, these operations consist of shellfish aquaculture located primarily within the Willapa Bay and Grays Harbor estuaries. For more detail on aquaculture in the study area, please refer to Section 2.5 of the Marine Spatial Plan.

MAJOR DATA SOURCES:

Information relevant to aquaculture in the study area was provided by:

- Washington Department of Fish and Wildlife: Aquaculture districts
- Washington Department of Health: Commercial shellfish growing areas, harvest sites, and water quality monitoring stations
- Washington Department of Natural Resources: Oyster reserves and oyster tracts
- Washington Department of Ecology: Seafood processors and location of marinas
- US Army Corps of Engineers: Location of ports
- Industrial Economics and Cascade Economics: Economic analyses of marine sectors including shellfish aquaculture

PRODUCTS AND METHODS:

Spatial data for harvest areas: Maps of commercial growing areas, harvest sites, and aquaculture districts were provided by the state agencies that regulate or manage aquaculture areas and operations.

Seafood processors: A list of seafood processors was compiled using two Department of Ecology databases. The Facility/Site Database and the water quality Permit and Reporting Information System (PARIS) contain publically available information on facilities which hold state permits for industrial or stormwater discharges. Searches were performed to identify the location of facilities conducting operations related to various types of seafood processing.

Economics: Cascade Economics conducted an analysis of Washington's coastal economies, completed in 2015. This report provides economic profiles of several marine sectors including aquaculture. Analysis of the aquaculture industry was based in part on a report produced by Industrial Economics in 2014, which incorporated information including harvest and shellfish farm data from the Washington Department of Fish and Wildlife (WDFW) and licensing data from the Department of Health. Cascade's analysis also includes results of a survey and interviews regarding coastal shellfish processing and distribution. The final report assesses the economic contributions of aquaculture, and provides a qualitative analysis of the potential impacts of new coastal uses on the aquaculture industry.

REMAINING DATA GAPS AND CHALLENGES:

Seafood processing: The state does not maintain a comprehensive spatial dataset of seafood processing facilities. The data described here identifies facilities involved in processing which have been issued more general stormwater or industrial discharge permits by the Department of Ecology. As a result, the records from these databases may not include all relevant facilities in the study area.

Tribal shellfish data: Data sources described here do not include tribal shellfish aquaculture activities.

Data used for economic studies: Some datasets used in economic studies, including information from WDFW regarding shellfish farm acreage and harvest volume, have known reporting limitations and are considered to some extent incomplete and inaccurate. This makes assessing the amount of aquaculture actively occurring in the study area difficult. For this and other reasons addressed in more detail in final reports, data on total harvest value is limited and potentially underrepresented. Additionally, some other datasets used in economic and sector analyses were only available at statewide or local scale, rather than at the county or planning area scale.

Offshore aquaculture suitability: General information is provided in the Marine Spatial Plan regarding conditions that tend to be suitable for various types of offshore aquaculture, including water depth and access to shore facilities. However, limited information is available on more specific attributes that pertain to detailed site suitability for offshore aquaculture. As a result, no detailed analysis has been done to identify where in the study area these types of activities might be proposed in the future.

DATA SUMMARY: FISHERIES

Marine spatial planning (MSP) is a process for gathering information on coastal and ocean activities and environments, providing recommendations for siting new ocean uses, creating a process for coordinating across all levels of government, and ensuring stakeholder input on new ocean uses in a comprehensive plan.

For more detailed information on the planning process in Washington, specific data or projects, or to use the interactive MSP spatial data viewer, please visit the Marine Spatial Planning website at www.msp.wa.gov. Links are also provided to some project reports or data sources below.

RECREATIONAL AND COMMERCIAL FISHERIES:

The following data provides information related to commercial and recreational fishing activity within the study area. For a description of the fisheries occurring in and important to the communities of the MSP study area, please refer to Chapter 2.4 of the Marine Spatial Plan. More details about the fisheries maps will also be provided in a separate report, yet to be completed.

MAJOR DATA SOURCES:

Maps for the following non-tribal fisheries were created by the Washington Department of Fish and Wildlife, using logbook data, industry interviews, and other information:

- Commercial fisheries: Albacore Tuna, Dungeness Crab, Sablefish (fixed gear), groundfish (bottom trawl), Pacific Whiting, Pink Shrimp, salmon (troll), and Pacific Sardine
- Recreational fisheries: Salmon, Pacific Halibut, bottomfish, Lingcod, and Albacore Tuna

Additional relevant information was acquired from:

- Washington Department of Health: Location of recreational shellfish beaches
- National Park Service: Location of hardshell clam beaches in Olympic National Park
- Industrial Economics and Cascade Economics: Economic analyses of marine sectors including tribal and non-tribal fisheries, based on catch and effort statistics from WDFW and NOAA, permit records, and other sources
- NOAA Fisheries: Location of combined Usual and Accustomed areas for the four coastal treaty tribes
- Washington Sea Grant: Location of towboat lanes established by crab fishermen and the tugboat and towboat industry in order to limit interactions between towing vessels and fishing gear.

PRODUCTS AND METHODS:

Maps of fishing activity: Fishing maps were created using a combination of fishery logbook data and industry interviews. More detail on WDFW's methods for compiling fishing intensity maps is provided on the following page.

Seafood processors: A list of seafood processors was compiled using two Department of Ecology databases. The Facility/Site Database and the water quality Permit and Reporting Information System (PARIS) contain publically available information on facilities which hold state permits for industrial or stormwater discharges. Searches were performed to identify the location of facilities conducting operations related to various types of seafood processing.

Economics: Industrial Economics provided a sector analysis for non-tribal commercial and recreational fishing in Washington, which gives an overview of the current status of these sectors and significant issues facing them. Cascade Economics conducted an analysis that provides economic profiles of Washington's tribal and non-tribal coastal communities and several marine sectors including fisheries and associated industries. The authors used landing and survey data from WDFW and NOAA, as well information on international markets, environmental conditions, and more to assess current trends and the potential for impacts on fishing sectors from future new uses. Additional sources of economic information are referenced in Chapter 2.4 of the Marine Spatial Plan.

REMAINING DATA GAPS AND CHALLENGES:

Fishing activity: Logbook records are not available for every fishery. Available records may only cover a short time frame, be subject to inaccurate reporting, be reported at an imprecise spatial resolution, or have other limitations. In addition to uncertainty associated with data, fisheries are inherently variable. Changes in regulations, economic conditions, the marine environment, and other factors all affect the location and amount of fishing effort each year. The footprint of a fishery and the relative intensity of fishing within in it should be expected to vary from year to year.

Tribal fisheries: While information on tribal fishing activity and its economic value is provided both in the Cascade Economics study and the Marine Spatial Plan, spatial data regarding tribal fishing intensity was not available nor included in these fisheries maps. Chapter 2.4 provides an overview of tribal fishing activities.

Seafood processing: The state does not maintain a comprehensive spatial dataset of seafood processing facilities. The data described here identifies facilities involved in processing which have been issued more general stormwater or industrial discharge permits by the Department of Ecology. As a result, the records from these databases may not include all relevant facilities in the study area. Additionally, the Cascade Economics report addresses the economic impacts of seafood processing, but does not include secondary processing operations or non-local distribution or retailing.

Economic data: In some cases the data used in economic analysis had confidentiality restrictions. Some datasets were also only available at a scale that can be difficult to apply to the planning area, specific communities, or segments of the commercial or recreational fishing sectors.

ADDITIONAL DETAIL ON FISHERIES MAPPING METHODS:

Fisheries use maps were developed by WDFW to summarize available information on areas of high importance to fisheries as required by RCW 43.372.040(6)(c). The primary purpose of the maps is to identify the footprint of each fishery (where fishing has occurred or has the potential to occur).

The secondary goal is to characterize the relative level of activity within each fishery's footprint using intensity rankings. Rankings cannot be used to compare the intensity of one fishery to another, as a "high" intensity area in one fishery may have seen less overall activity than a "low" or "medium" from another, larger fishery.

Maps were based on fishery-dependent data (i.e. logbook or observer records), the professional expertise and judgment of fishery managers and participants, or a combination of the two. WDFW used one of three general approaches for maps, depending on the information available for each fishery:

1. **Maps based on fishery-dependent data and percentile rankings**: Each hexagon was evaluated for units of fishing effort (i.e. number of set or tows per hexagon) and all hexagons within the fishery's footprint were ranked as:
    a. "High"- Top 25% of hexagons
    b. "Medium"- Middle 50% of hexagons
    c. "Low"- Bottom 25% of hexagons

2. **Maps based on logbook data with criteria-based intensity definitions**: Due to limited location and effort data presented in logbooks, each hexagon was evaluated based on available effort data and other criteria that correlates with high activity in that particular fishery (e.g. depth, distance from shore).

3. **Maps based on interviews with fishery participants and managers**: Some fisheries have no logbook or observer data that can be used to evaluate effort level. Therefore, WDFW consulted with fishery participants and managers to determine intensity levels and footprints of select fisheries.

In addition to the data gaps and limitations described on the previous page, WDFW emphasizes that these maps cannot address the impact or conflict that would occur from new uses in these areas. Assessment of conflict and impact would require careful study and examination of all available information on a case by case basis.

DATA SUMMARY: RECREATION AND TOURISM

Marine spatial planning (MSP) is a process for gathering information on coastal and ocean activities and environments, providing recommendations for siting new ocean uses, creating a process for coordinating across all levels of government, and ensuring stakeholder input on new ocean uses in a comprehensive plan.

For more detailed information on the planning process in Washington, specific data, or projects, or to use the interactive MSP spatial data viewer, please visit the Marine Spatial Planning website at www.msp.wa.gov. Links are also provided to some project reports or data sources below.

RECREATION AND TOURISM:

The following data provides information related to recreational and tourism activities within the study area. This information is described in more detail in Chapter 2.6 of the Marine Spatial Plan. Note that recreational fishing data is described in the fisheries data summary and Chapter 2.4.

MAJOR DATA SOURCES:

The Surfrider Foundation's Washington Ocean and Coastal Recreation Study provided data describing:

- The economic impacts of recreational activities on Washington's coast
- The geographic distribution and intensity of recreational uses in four categories:
  - **Diving activities**: SCUBA diving and free diving/snorkeling
  - **Shore-based activities**: Beachcombing, beach going, beach driving, biking & hiking, camping, hang gliding & parasailing, horseback riding, sea-life collecting & harvesting, tide pooling
  - **Surface water activities**: Boating & sailing, kayaking, kiteboarding, skimboarding, surfing, windsurfing, swimming & body surfing
  - **Wildlife viewing and sightseeing activities**: Photography, sightseeing, scenic drives, and wildlife viewing from boats or from shore

Additional data provided by:

- Industrial Economics and Cascade Economics: Economic analyses of marine sectors including tourism and recreation
- Washington Department of Ecology: Public shoreline access locations
- National Park Service: Location of Olympic National Park boundaries
- Washington Department of Natural Resources: Location of Seashore Conservation Areas
- National Oceanic and Atmospheric Administration: Location of Olympic Coast National Marine Sanctuary boundaries and spatial data on recreational vessel transit
- US Fish and Wildlife Service: Location of National Wildlife Refuges

PRODUCTS AND METHODS:

Recreation data: To provide baseline data on the extent, intensity and economic impacts of recreation and tourism in coastal Washington, the Surfrider Foundation, in collaboration with Point 97, conducted an online survey which asked respondents to map locations where they had participated in recreational activities within the study area, and to provide information on expenditures associated with trips to coastal Washington. Two sampling approaches were used, the first of which acquired data from a random sample representing all Washington residents. The second approach was an opt-in survey that allowed anyone to participate, with the goal of reaching a more targeted group of coastal users. This method helped provide a complete picture of activities occurring in the study area, including some activities which are important to the region and its economy but have a smaller number of users that may not have been represented using only statewide random sampling.

Spatial and statistical analyses were used to display activity results as "heat maps" showing areas of highest intensity for individual uses and groups of uses. Surfrider also provided a map showing overall use intensity based on the results, and a final report describing important trends, popular uses, and estimations of the economic value of recreation and tourism to the coast.

Economics: The sector analysis by Industrial Economics provides an overview of other available information on recreation and tourism in Washington State and the study area. Cascade Economics also conducted an analysis of Washington's coastal economies, using Surfrider's results as well as other economic data and studies. Cascade's final report assesses the importance of these sectors to three regions, individual communities, and the state as a whole, and discussed likely impacts to tourism and recreation from potential new uses.

Recreational vessel transit: The Olympic Coast National Marine Sanctuary (OCNMS) mapped recreational vessel traffic using similar data and methods to those described for other shipping layers (please see shipping data summary). Recreational vessel data includes personal craft like sailboats, motorboats, and small personal fishing vessels when they are using the study area for purposes other than fishing.

REMAINING DATA GAPS AND CHALLENGES:

Recreational Activity and Vessel Mapping: For the recreation study, over 17,000 data points were entered by respondents using an online mapping application. All points were included in the final analysis because even if a few individual points were associated with minor user input errors, they provide valuable information about overall trip expenditures and the total numbers of users participating in each activity.

Vessel density analyses by OCNMS were primarily based on Automated Identification System (AIS) data, which is not available for all small vessels. OCNMS consulted multiple sources to identify and track recreational ship transits in the study area, but some small vessels may not be represented in this data.

Economics: As noted in Cascade's report, the full economic impacts of some expenditures by out-of-state visitors (and thus the related employment and labor implications) are difficult to accurately assess and are not included in their analysis. Surfrider results only include expenditure and activity information for Washington State residents, and additional surveys would be necessary to provide comparable information for those visitors coming to the area that are from out of state.

DATA SUMMARY

ECOLOGY: BIOLOGICAL DATA

Marine spatial planning (MSP) is a process for gathering information on coastal and ocean activities and environments, providing recommendations for siting new ocean uses, creating a process for coordinating across all levels of government, and ensuring stakeholder input on new ocean uses in a comprehensive plan. For more detailed information on the planning process in Washington, specific data, or projects, or to use the interactive MSP spatial data viewer, please visit the Marine Spatial Planning website at www.msp.wa.gov. Links are also provided below to some relevant reports or sources.

ECOLOGY

The Marine Spatial Plan provides information about the physical, biological, chemical, and geological characteristics of the study area. Some information was acquired from existing programs or studies, while other data was collected or analyzed specifically for MSP purposes. This document provides a summary of some key data sources, but more information on the many ecological data sources consulted is provided in Sections 2.1, 3.1, and 3.2 of the Marine Spatial Plan.

MAJOR DATA SOURCES

The Washington Department of Fish and Wildlife performed an analysis of Ecologically Important Areas for:

- **Birds:** Snowy Plover, Streaked Horned Lark, Black-footed Albatross, Northern Fulmar, Sooty Shearwater, Common Murre, Tufted Puffin, Pink Footed Shearwater, Marbled Murrelet, seabird colonies, and nearshore seabird encounters
- **Marine Mammals:** Seal and sea lion haulouts, Dall's Porpoise, Gray Whale, Harbor Porpoise, Harbor Seal, Humpback Whale, sea otters, and Steller Sea Lion
- **Fish and Invertebrates:** Razor clams, Dungeness Crab, Darkblotched Rockfish, Dover Sole, Greenspotted Rockfish, Longspine Thornyhead, Pacific Ocean Perch, Petrale Sole, Sablefish, Shortspine Thornyhead, Yelloweye Rockfish, Pacific Whiting, Pink Shrimp, deep sea coral, and forage fish spawning areas
- **Habitats**: Rocky reefs and kelp

Additional information relevant to the ecology of the study area was provided by:

- Washington Department of Natural Resources: Maps of shoreline biology and habitat including kelp, seagrass, and salt marshes
- Washington Department of Fish and Wildlife: Forage fish survey results and the location of seabird colonies, marine mammal haulouts, and Northern Sea Otter concentration areas
- NOAA's National Centers for Coastal Ocean Science (NCCOS): Predictive models showing expected relative abundance for eight species of birds and six species of marine mammals
- National Oceanic and Atmospheric Administration (NOAA): Maps of critical and essential habitat for several fish species and information supporting the evaluation and selection of ecosystem indicators for the study area

SELECTED PRODUCTS AND METHODS:

Ecologically Important Areas (EIA): The Washington Department of Fish and Wildlife (WDFW) compiled maps that aimed to identify regions of relatively greater ecological importance in the study area, as represented by available data on the distribution of selected species and habitats. Input data for this analysis varied widely in format and scope, but included information from fisheries records, fish and wildlife surveys, and predictive models. Data was acquired both from WDFW projects and monitoring programs, and from various external federal, state, and academic sources. Estuaries were not included in analysis due to data availability and resolution issues, but the Marine Spatial Plan recognizes that they are known to be of high ecological importance. For each species and habitat, WDFW used a quantile approach to assign a relative importance score to each 1-square mile hexagon within the planning area. These scores allowed analysts to compare results across species, and to combine multiple data layers into "hotspot" maps. Hotspots show areas that are expected to be relatively more important to a greater number of species or groups. Please see Section 3.2 of the Marine Spatial Plan for more information about the methods and results of the EIA analyses.

Relative Abundance Models for Mammals and Birds: NCCOS synthesized data from 11 existing survey programs and a wide variety of ecological datasets. The results of this analysis were a series of statistical models and maps showing areas where relatively higher abundances of each species would be expected, based on field observations and relevant environmental predictor variables. Model outputs were incorporated into the EIA analysis described above. Please see Section 3.1 of the Marine Spatial Plan for more detail on the source data and models.

Ecosystem Indicators: With input from a wide range of scientists, NOAA's Northwest Fisheries Science Center (NWFSC) developed a conceptual model for describing key ecological components of the study area and identified a list of potential ecological indicators to support Marine Spatial Planning in Washington. This project described physical drivers, habitats, human pressures, and biological factors that are important to characterizing ecology in the study area. Based on this information, a review of scientific information on indicators, initial input from scientists and managers on criteria, and other sources, NWFSC developed an initial list of potential indicators that may provide measures of the health and status of Washington's coastal waters. NWFSC also produced a status and trends report for these potential ecological indicators, where data was available to report on those indicators.

REMAINING DATA GAPS AND CHALLENGES:

Ecologically Important Areas and Relative Abundance Models: Because of the complexity of the analyses conducted by WDFW and NCCOS and the number and diversity of datasets used to represent different species and habitats, there are various limitations and uncertainties associated with their data and results. The EIA maps provide a way to summarize available data on some key biological aspects of the study area, and show broad trends in species and habitat distribution throughout the region. However, these maps cannot fully account for other important factors such as ecological interactions or differences in ecological hotspots over different seasons and time scales. For both analyses, each input dataset is also associated with its own challenges depending on data coverage and collection methods, and insufficient data was available to include some important species, including some which are endangered or threatened. All analysis outputs must be carefully assessed alongside other available information, including the evaluations of uncertainty provided by both studies. Please see Section 3.2 of the Marine Spatial Plan for a further discussion of NCCOS and EIA data gaps and limitations.

Ecological Indicators: The work by NWFSC provides a starting point for identifying helpful and scientifically-sound ecological indicators. The indicators suggested in the final report are only an initial list, which still must be further assessed and refined into a shorter list to maximize their usefulness.

DATA SUMMARY

ECOLOGY: SEAFLOOR AND OCEANOGRAPHIC DATA

Marine spatial planning (MSP) is a process for gathering information on coastal and ocean activities and environments, providing recommendations for siting new ocean uses, creating a process for coordinating across all levels of government, and ensuring stakeholder input on new ocean uses in a comprehensive plan. For more detailed information on the planning process in Washington, specific data, or projects, or to use the interactive MSP spatial data viewer, please visit the Marine Spatial Planning website at www.msp.wa.gov. Links are also provided below to some relevant reports or sources.

ECOLOGY

The Marine Spatial Plan provides information about the physical, biological, chemical, and geological characteristics of the study area. Some information was acquired from existing programs or studies, while other data was collected or analyzed specifically for MSP purposes. This document provides a summary of key data sources, but more information on the many ecological data sources consulted is provided in Sections 2.1, 3.1, and 3.2 of the Marine Spatial Plan.

MAJOR DATA SOURCES

Information relevant to seafloor mapping and other oceanographic data was provided by:

- NOAA's National Centers for Coastal Ocean Science (NCCOS): An evaluation of available seafloor mapping data and identification of priorities for future mapping projects
- The Nature Conservancy: Models and data describing benthic substrate and bathymetry
- Olympic Coast National Marine Sanctuary and Oregon State University: Seafloor mapping data and a seafloor atlas for Washington's outer coast
- Washington Department of Ecology and the US Geological Survey: Shallow water bathymetric, sediment, and topographic surveys
- National Oceanic and Atmospheric Administration (NOAA): The location of dominant coastal geology features
- The University of Washington: Oceanographic data relevant to primary productivity, oxygen levels, and other physical and chemical properties of the study area

SELECTED PRODUCTS AND METHODS:

Seafloor Data Prioritization: NCCOS conducted an evaluation of available seafloor data, and led a participatory process designed to identify priorities for future seafloor mapping efforts. This effort included two workshops with representatives from federal and state agencies and coastal tribes, where participants provided their perspective on the potential for future mapping efforts to assist with fulfilling their management and planning goals. The process resulted in the creation of an interactive data viewer and prioritization tool, and the collaborative identification of several areas most frequently selected by participants as a high priority.

Synthesis of Seafloor Data: The Olympic Coast National Marine Sanctuary collaborated with the Active Tectonics and Seafloor Mapping Lab at Oregon State University to compile and standardize existing seafloor mapping survey data. This involved synthesizing sidescan and multibeam sonar data collected between 2000 and 2013, and producing an online Seafloor Atlas.

Shallow Water Surveys: The Washington Department of Ecology's Coastal Monitoring and Analysis Program (CMAP) conducted surveys of shallow coastal areas along Washington's coast. CMAP collected data using multibeam bathymetric, single beam bathymetric, and topographic LiDAR surveys. CMAP also collected data on beach profiles and geomorphology, and collaborated on the installation of a network of geodetic controls to support the ongoing study of shoreline characteristics. Partners for these projects included the U.S. Geological Survey, Oregon State University, the Quinault and Quileute Indian Nations, and the National Park Service.

Synthesis of Water Property Data: Oceanographers at the University of Washington compiled maps of the study area describing properties including temperature, salinity, water currents, chlorophyll content, and oxygen content. These maps and other final products were based on data collected by the University over several decades. Researchers synthesized existing data and models, and converted them to formats compatible with other information being used in the MSP process. Seasonal variability in this ocean observation data was also considered and incorporated into the maps.

REMAINING DATA GAPS AND CHALLENGES:

Seafloor Mapping: Collecting bathymetric and other seafloor data is often logistically challenging and costly. In some cases, modeling approaches can provide indications of where certain seafloor features or sediment types are likely to be located based on various environmental factors and known features. However, the usefulness of this kind of data can be limited without studies that can ground-truth models using mapping technology in the field.

The seafloor data prioritization process led by NCCOS identified areas that may prove particularly valuable for both Marine Spatial Planning and other ongoing efforts to understand the physical characteristics of Washington's coastal and marine waters. These locations do not represent the only oceanographic and bathymetric data gaps in the study area. They give an indication of areas that have shared management priorities for filling data gaps and, therefore, where future mapping efforts could maximize their benefit for multiple purposes and groups.

DATA SUMMARY: SHIPPING

Marine spatial planning (MSP) is a process for gathering information on coastal and ocean activities and environments, providing recommendations for siting new ocean uses, creating a process for coordinating across all levels of government, and ensuring stakeholder input on new ocean uses in a comprehensive plan.

For more detailed information on the planning process in Washington, specific data, or projects, or to use the interactive MSP spatial data viewer, please visit the Marine Spatial Planning website at www.msp.wa.gov. Links are also provided to some project reports or data sources below.

SHIPPING:

The following data used in the Marine Spatial Plan provides information related to the transit of commercial waterborne cargo to, from, and through the study area, including navigational information relevant to the shipping industry. More information on marine transportation, navigation, and infrastructure is available in Section 2.7 of the Marine Spatial Plan.

MAJOR DATA SOURCES:

Shipping data for the study area provided by:

- Olympic Coast National Marine Sanctuary: Density of shipping vessel transits in the study area
- BST Associates: Vessel transit trends and forecasts for the Pacific Northwest
- Cascade Economics: Economic analyses of marine sectors including shipping

Navigational data relevant to shipping was acquired from:

- National Oceanic and Atmospheric Administration: Location of shipping lanes, Area to be Avoided (ATBA), buoys, beacons, and other aids to navigation
- US Army Corps of Engineers: Location of federal navigation channels and ports
- National Waterways Network at the Bureau of Transportation Statistics: Location of commercially navigable deep draft waterways
- Washington Sea Grant: Location of towboat lanes established by crab fishermen and tugboat and towboat industry in order to limit interactions between towing vessels and fishing gear.

PRODUCTS AND METHODS:

Shipping activity maps: The Olympic Coast National Marine Sanctuary (OCNMS) compiled and processed spatial data on shipping activity. This information represents the location and density (vessels per square mile) of ship traffic passing through the study area in 2013 and 2014.

Types of ships and their movement through the study area were identified by analyzing satellite-derived automatic identification system (AIS or SAIS) data from exactEarth.com. AIS is a tracking system used to identify and locate vessels; the Coast Guard requires that AIS systems be carried by large commercial ships in the United States, though they are also used by some smaller and/or private vessels. OCNMS sorted reported vessel positions into six categories which include both shipping data (cargo, tanker, and tug & tow vessels) and data on other types of vessels (recreational, military, and passenger ships), and mapped traffic density using ArcGIS software. The resulting maps show where AIS data indicates that each category of vessel traffic is occurring at a low, moderate, or high intensity in the study area.

Vessel trends and forecasts: In 2014, BST Associates compiled a report for use in the Marine Spatial Planning process on the current state of the shipping sector and calculated projections for future shipping activity in the Pacific Northwest. Projections of future vessel traffic are based on data including past trends in cargo volume and value, transit routes, previous export and import studies, and forecasts for trade patterns in the northwest and abroad. This report also assesses the potential for offshore energy development to affect marine shipping.

Economics: Using the information compiled by BST Associates as well as other recent studies, Cascade Economics conducted an analysis of Washington's coastal economies, completed in 2015. This report describes economic profiles of several marine sectors including commercial shipping. It assesses economic impacts associated with shipping, discusses areas of risk and vulnerability in the sector, and summarizes potential impacts of new coastal uses on commercial shipping. Economic models were produced for five counties in Washington with heavily coastal use-dependent economies, as well as for the entire state.

Ports: Available sources for port data use different methods and criteria to identify port locations. Additional datasets and stakeholder feedback were used to supplement the Army Corps of Engineers port information for some uses.

REMAINING DATA GAPS AND CHALLENGES:

Vessel transit and tonnage data for economic analysis: Vessel transit information is readily available for international trade and the domestic transportation of petroleum products. However, available data on the tonnage of domestic non-petroleum products being transported is more limited.

Potential impacts of new uses: Information on how shipping conditions could be impacted by potential new uses remains limited, including potential economic impacts.

DATA SUMMARY: RENEWABLE ENERGY

Marine spatial planning (MSP) is a process for gathering information on coastal and ocean activities and environments, providing recommendations for siting new ocean uses, creating a process for coordinating across all levels of government, and ensuring stakeholder input on new ocean uses in a comprehensive plan.

For more detailed information on the planning process in Washington, specific data or projects, or to use the interactive MSP spatial data viewer, please visit the Marine Spatial Planning website at www.msp.wa.gov. Links are also provided to some project reports or data sources below.

RENEWABLE ENERGY:

The following data provides information relevant to potential future offshore wind, wave, and tidal energy development within the study area. Data was collected about existing infrastructure relevant to renewable energy facilities, as well as the technical suitability of Washington's marine waters for energy production.

MAJOR DATA SOURCES:

Information about renewable energy potential in the study area was provided by:

- Pacific Northwest National Laboratory: Technical suitability analysis for renewable ocean energy
- Olympic Natural Resources Center: Line of sight analysis for offshore facilities
- Industrial Economics and Cascade Economics: Economic analyses of marine sectors including renewable energy

Data on existing infrastructure relevant to offshore energy facilities was provided by:

- US Army Corps of Engineers: Location of ports
- Bonneville Power Administration: Location of transmission lines and substations
- National Oceanic and Atmospheric Administration: Location of submarine cables

PRODUCTS AND METHODS:

Technical Suitability Analysis: The Department of Energy's Pacific Northwest National Laboratory (PNNL) modeled offshore energy suitability off the coast of Washington for three types of wind technology, four types of wave technology, and one type of tidal energy technology. Suitability was determined based on factors including available energy resources, distance to shore support and electrical transmission infrastructure, water depth, and bottom sediment type. Results were calculated and mapped in ArcGIS. For this analysis, PNNL acquired technical specifications for renewable energy devices from industry advisors and the U.S. Department of Energy's Marine and Hydrokinetic Technology Database. Various federal, state, and academic sources provided spatial datasets describing existing conditions in the study area. A full list of data sources is available in the final project report on the MSP website.

Viewsheds: The Olympic Natural Resources Center provided a map showing the predicted visibility of offshore structures from land. Sight line distances were calculated and displayed in ArcGIS using a formula describing sight distance in terms of structure height, viewer height, and atmospheric conditions. Three potential facility heights were based on typical wind and wave structures, and three observer heights were based on viewing from the shoreline or a multistory onshore structure.

Economics: A sector analysis by Industrial Economics summarizes the potential economic implications of planning, constructing and operating wind, tidal, and wave energy facilities off the coast of Washington. The authors describe the current status of the sector and predict future trends based on sources including the PNNL suitability analysis, other suitability studies in the US, expert interviews, and information on past research and development projects for marine renewable energy in Washington. Additionally, Cascade Economics conducted an analysis of Washington's coastal economies. This report summarizes potential impacts of offshore renewable energy development on existing uses including fishing, aquaculture, recreation, and shipping.

REMAINING DATA GAPS AND CHALLENGES:

Technical Suitability: The final report provided by PNNL cites known uncertainty issues related to substrate information and data collected in shallow water, such as wave resource data. Additionally, it is unclear how rapidly renewable energy technology may advance in coming years, but changes in technology will affect assessments of the technical suitability of the study area for both pilot- and full-scale development.

Economics and Market Influences: PNNL's analysis focused only on technical requirements for development, and did not incorporate detailed information related to the cost of planning, installing, or operating offshore energy facilities.

Marine renewable energy development is still a relatively new sector and has not occurred in the study area to date. So while economic data related to the renewable energy industry is available for other locations and at broader scales, Cascade Economics' report notes that quantitative information specific to the study area is limited. There are also unknowns related to some of the broader market and energy policy influences that could affect where renewable energy projects may actually be of interest to developers in the future.

Part 4 - Marine Spatial Plan and DRAFT Management Framework

NOTE: This is a working draft and sections are still undergoing editing.

The draft management framework (Part 4) guides how the marine spatial plan is applied to new ocean uses. It provides:

- *The existing policies, authorities and requirements that guide implementation of the MSP;*
- *The process for reviewing potential new ocean uses; and*
- *The substantive requirements and recommendations for evaluating new ocean uses through different phases of project review, consistent with the MSP law and existing state laws and regulations.*

The draft management framework also summarizes other activities that will be taken that assist in monitoring, evaluation, adaptation and revision of the marine spatial plan.

4.1 Existing policies and authorities

4.1.2 Introduction to the Management Framework

The Marine Spatial Plan (MSP) for Washington's Pacific Coast focuses on providing data, information, analyses and recommendations to address new potential ocean uses in Washington's marine waters such as marine renewable energy, offshore aquaculture, mining for sand and gravel or methane hydrates, new dredge disposal locations, or bioextraction. The MSP does not address or alter requirements for existing marine uses such as shellfish aquaculture, commercial or recreational fishing, recreation, shipping or navigation. The MSP study area covers the Washington's marine waters[1] along the Pacific Ocean from Cape Flattery to Cape Disappointment and from ordinary high water out to offshore waters to a distance offshore that follows the continental shelf at a water depth of 700 fathoms. The study area also includes the estuaries along the coast [reference study area figure].

The MSP Management Framework provides overall guidance and recommendations for applicants, agencies and third parties on using the plan in practice. The MSP should be used throughout the development of new ocean use proposals on Washington's Pacific Coast and in all stages of decision-making. The information and processes outlined in the Management Framework are essential to assist agencies in evaluating whether a new ocean use project satisfies compliance with the Ocean Resources Management Act and its regulations.[2] In particular, applicants need to follow processes for coordination and engagement in Section 4.2.1, and need to demonstrate their project complies with the spatial

[1] "Marine waters" is defined in RCW 43.372.010(9). Scoping further refined the study area for this specific plan.
[2] Depending on the project, other information may be required to process other permits or authorizations (see Section 4.1.5 for relationship to other state and local authorities). The Management Framework primarily focuses on the processes and specific information required for assessing compliance with the Ocean Resources Management Act and its regulations.

designations and recommendations in Section 4.3, provide all information listed in Sections 4.4, 4.5, and 4.7, and address their compliance with applicable standards in Sections 4.6 and 4.8.

The development of the Management Framework was informed by recommendations from the Washington Coastal Marine Advisory Council (WCMAC), including concerns about the effects of new ocean uses on existing uses, coastal communities and the environment. Actions that relate to specific WCMAC recommendations are referenced throughout the management framework. For complete WCMAC concerns and recommendation language, please see [reference location of WCMAC recommendations].

The Management Framework contains the following major sections:

- Section 4.1 - Information on existing policies, authorities and requirements that guide implementation of the MSP.
- Section 4.2 - Process for reviewing and consulting on ocean use proposals and other state implementation activities.
- Section 4.3 - Spatial designations and information to understand spatial limitations, potential conflicts and interactions; to inform project siting, development and design; and to identify appropriate parties to consult regarding potential proposals.
- Section 4.4 – Project and site-specific information requirements
- Section 4.5 - Contents of a written effects evaluation
- Section 4.6 – Review standards and design considerations
- Section 4.7 – Project construction and operation plans
- Section 4.8 – Standards specific to new use type

4.1.3 Requirements to Implement the Final MSP

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.[3] At the same time, the Marine Spatial Plan law limits the state and local agencies to using their existing authorities to implement the plan and does not create any new authorities.[4]

4.1.4 Existing State Ocean Policies, Permit Criteria and Regulations

The Ocean Resources Management Act (ORMA) outlines specific state policies and regulations that specifically apply to policy, planning and permitting of ocean uses on Washington's Pacific Coast [RCW 43.143].

1. General policies:

[3] Upon the adoption of the marine management plan under RCW 43.372.040, each state agency and local government must make decisions in a manner that ensures consistency with applicable legal authorities and conformance with the applicable provisions of the marine management plan to the greatest extent possible. [RCW 43.372.050(1)]

[4] No authority is created under this chapter to affect in any way any project, use, or activity in the state's marine waters existing prior to or during the development and review of the marine management plan. No authority is created under this chapter to supersede the current authority of any state agency or local government. [RCW 43.372.060]

When the state of Washington and local governments develop plans for the management, conservation, use, or development of natural resources in Washington's coastal waters, the following policies shall guide the decision-making process [RCW 43.143.030(1)].

a. When conflicts arise among uses and activities, priority shall be given to resource uses and activities that will not adversely impact renewable resources over uses which are likely to have an adverse impact on renewable resources. [RCW 43.143.010(3)]
b. Recreational uses or currently existing commercial uses involving fishing or other renewable marine or ocean resources are not required to meet the planning and review criteria set forth in RCW 43.143.030. [RCW 43.143.010(5)]
c. The state shall participate in federal ocean and marine resource decisions to the fullest extent possible to ensure that the decisions are consistent with the state's policy concerning the use of those resources. [RCW 43.143.010(6)]
d. There shall be no leasing of state tidal waters or submerged lands[5] for oil or gas exploration, development or production [RCW 43.143.101(2)].
e. Actively encourage the conservation of liquid fossil fuels, and to explore available methods of encouraging such conservation. [RCW 43.143.010(4)]

2. Ocean uses planning and project review criteria

Uses or activities that require federal, state, or local government permits or other approvals and that will adversely impact renewable resources, marine life, fishing, aquaculture, recreation, navigation, air or water quality, or other existing ocean or coastal uses, may be permitted only if the criteria below are met or exceeded [RCW 43.143.030(2)]:

a. There is a demonstrated significant local, state, or national need for the proposed use or activity;
b. There is no reasonable alternative to meet the public need for the proposed use or activity;
c. There will be no likely long-term significant adverse impacts to coastal or marine resources or uses;
d. All reasonable steps are taken to avoid and minimize adverse environmental impacts, with special protection provided for the marine life and resources of the Columbia river, Willapa Bay and Grays Harbor estuaries, and Olympic national park;
e. All reasonable steps are taken to avoid and minimize adverse social and economic impacts, including impacts on aquaculture, recreation, tourism, navigation, air quality, and recreational, commercial, and tribal fishing;
f. Compensation is provided to mitigate adverse impacts to coastal resources or uses;
g. Plans and sufficient performance bonding are provided to ensure that the site will be rehabilitated after the use or activity is completed; and
h. The use or activity complies with all applicable local, state, and federal laws and regulations.

[5] Applies specifically from mean high tide seaward and from Cape Flattery south to Cape Disappointment, in Grays Harbor, in Willapa Bay, and the Columbia River downstream from the Longview bridge.

Further regulations implementing the Ocean Resources Management Act are provided in WAC 173-26-360 and include general requirements [WAC 173-26-360(7)] and requirements for specific types of ocean uses [WAC 173-26-360(8)-(14)]. Since these existing regulations apply to various phases of project review, they are integrated and referenced throughout the relevant sections of the MSP management framework, including: project and site-specific information, effects evaluation, general review standards, and specific use review standards.

4.1.5 Relationship of Marine Spatial Plan to other existing state and local authorities and plans

Washington state law requires the Marine Spatial Plan (MSP) to be consistent with applicable state laws and programs and to be implemented through existing state and local authorities [RCW 43.372.040(6)(b) and RCW 43.372.040(6)(d)]. The law does not create new authority for state agencies nor does it affect projects or activities permitted prior to or during the development of the plan [RCW 43.372.060]. The Marine Spatial Plan does not create new regulations. All state and local agencies are responsible for implementing and adhering to the plan through existing regulatory and decision-making processes (see also interagency coordination in Section 4.2.2 and project and site-specific information in Section 4.4). Additional federal permits, licenses, leases, authorizations or consultations may also be required depending on the type and location of the ocean use activity.[6] This section does not list out nor does it pertain to federal requirements.

1. State Permits and Authorizations

Most state and local authorities apply only within state waters between 0 and 3 nautical miles (n.m.) offshore. The Marine Spatial Plan provides the following key benefits to existing state and local authorities:

a. Compiles inventory of baseline conditions and trends of uses and resources of the marine environment (Part 2 of Plan).
b. Provides data analyses to fulfill plan requirements and support plan designations and recommendations (Part 3 of Plan).
c. Provides recommendations on siting; site-specific information and assessments; effects analysis and monitoring and adaptive management for new ocean uses (Part 4 of Plan).
d. Improves process for agency review, consultation and coordination. (Part 4 of Plan).
e. Clarifies and further details the information needed to support the application of existing state laws and policies to potential new ocean uses (Part 4 of Plan).

The tables below provide more specific information on the existing state and local authorizations that may apply to projects in marine waters. The following state authorizations may be required for projects in marine environments, depending on the specific project type and location.

[6] Examples of these include: Olympic Coast National Marine Sanctuary authorizations, US Army Corps of Engineers Section 10 permits, Federal Energy Regulatory Commission licenses, and consultations required under the Endangered Species Act.

Table 4.1.5-1: State Permits or Authorizations for Aquatic Projects

State Action[7]	Agency	Primary Authority	Location	Focus Area/Purpose
Section 401 Certification	WA Dept of Ecology	Federal Clean Water Act – delegated by EPA to Ecology. In some areas EPA or tribes issue permits.	State Waters	Certifies that the project will comply with state water quality standards and other appropriate State laws
CZMA Federal Consistency Determination	WA Dept of Ecology	Federal Coastal Zone Management Act WA's approved Coastal Zone Management (CZM) Program	State and Federal waters	Evaluates federal actions to ensure consistency with CZM Program's approved enforceable policies. Allows state to evaluate federal actions that will affect state's coastal resources.
NPDES Construction Stormwater General Permit[8]	WA Dept of Ecology	Federal Clean Water Act - Section 402 delegated to Ecology In some areas EPA or tribes issue permits.	State Waters	Prevents or minimizes sediment, chemicals, and other pollutants from entering surface water as a result of clearing, grading, and excavation activities.
Aquatic Use Authorization	WA Dept of Natural Resources	Public Lands Act RCW 79.105	State-owned Aquatic Lands	Administers leases, easements, and rights-of-entry to authorize use of the seabed and Washington's marine waters.
Hydraulic Project Approval	WA Dept of Fish and Wildlife	Hydraulic Code RCW 77.55	State Waters	Allows for hydraulic projects in state waters – applies to any project that includes construction in state waters. Evaluates adequacy of protection of fish life.
Scientific Collection Permit	WA Dept of Fish and Wildlife	RCW 77.12.047	State Waters	Allows for collection of fish, shellfish, wildlife or next of birds for scientific investigation (i.e. not commercial sale or personal consumption). Specific requirements on methods and amounts may apply.
Trial Commercial Fishery Permit	WA Dept of Fish and Wildlife	RCWs: 77.12.047, 77.50.050, 77.60, 77.70, and 75.08.080	State Waters	Allows for trial harvest of newly classified species, or harvest of previously classified species in a new area or by new means, but no need to limit participation.
Experimental Fishery Permit	WA Dept of Fish and Wildlife	RCWs: 77.12.047, 77.50.050, 77.60, 77.70, and 75.08.080	State Waters	Allows for harvest in an emerging commercial fishery or expanding commercial fishery (need to limit participation).

[7] Actions may be a permit, lease, easement, or other authorization. As a part of these various processes there are formal and informal consultations among various federal, state, local, and tribal authorities. The coordination process will vary by permit and lead agency.

[8] This permit is triggered if more than 1 acre of upland lands is disturbed.

State Action[7]	Agency	Primary Authority	Location	Focus Area/Purpose
Marine Finfish Aquaculture	WA Dept of Fish and Wildlife	RCW 77.12.047, 77.15.030, 77.125	State Marine Waters	Allows for an aquatic farmer to possess any species, stock or race of marine finfish in net pens, cages or other rearing vessels. Must have escape prevention, reporting and recapture plan. No transgenic fish are allowed.
Shellfish Aquaculture Transfer	WA Dept of Fish and Wildlife	RCWs: 77.12.047	State Waters	Allows for transfer of shellfish, shellfish aquaculture products, aquaculture equipment or any marine organisms adversely affecting shellfish.
Right of Way Permit	WA State Parks and Recreation Commission	Seashore Conservation Area (SCA) RCW 79A.05.605	Coastal beaches in the SCA	Protects conservation areas for public recreation, cultural, and educational experiences.

2. Local Authorizations or Plans

Washington's local governments, cities and counties, have a variety of authorizations and permits that may apply to ocean use projects, depending on the specific project type and location. The Marine Spatial Plan provides information, analyses and recommendations for local governments to consider and incorporate in these processes, particularly in updating and revising their local Shoreline Master Programs. To be consistent with the MSP, local governments on Washington's Pacific Coast will need to update their local programs and incorporate information, analyses and recommendations from the final, adopted plan.[9] Other management plans may exist that would benefit by incorporating the MSP.

Table 4.1.5-2: Local Permits and Other Authorities for Aquatic Projects

Action[10]	Agency	Primary Authority	Location	Focus Area/Purpose
Shoreline Master Program Permits[11]	Local County or City	Shoreline Management Act RCW 90.58 and WAC 173-27 (Ocean Use Guidelines – WAC 173-27-360). Local Shoreline Master Program	State Shorelines, including state marine waters	Protects shoreline natural resources and public access while encouraging water dependent uses.
Critical Areas Ordinance Permits	Local County or City	Growth Management Act RCW 36.70A	County/city lands and waters	Protects locally designated critical areas such as wetlands, habitat conservation areas, and frequently flooded areas.

[9] RCW 43.372.040(10) – the plan must identify any provisions of existing management plans that are substantially inconsistent with the plan.

[10] Formal and informal consultations among various federal, state, local, and tribal governments occur as part of these processes. The process varies by permit and lead agency.

[11] Permits may include Exemptions, Shoreline Substantial Development Permits, Conditional Use Permits, or Variances.

Action[10]	Agency	Primary Authority	Location	Focus Area/Purpose
Floodplain Development Permit	Local County or City	Flood Plain Management RCW 86.16	County/city floodplains	Reduces social and economic loss caused by flood events. Project may not increase potential for damage from flood waters.
SEPA	State agency or local – depends on project[12]	State Environmental Policy Act RCW 43.21C	State (land or water) State or local review of project or plan	Requires state and local agencies to review proposals to identify environmental impacts.

4.1.6 How the MSP builds upon Washington's existing Coastal Zone Management Program

The Marine Spatial Plan for Washington's Pacific Coast contains information, policies and recommendations that build upon and further refine Washington's existing Coastal Zone Management Program (CZMP). The enforceable policies of Washington's CZMP include provisions from the following state laws:

- Shoreline Management Act (SMA)
- State Environmental Policy Act (SEPA)
- State Water Pollution Control Act and Clean Water Act
- Clean Air Washington Act and Clean Air Act
- Energy Facility Site Evaluation Council (EFSEC)
- Ocean Resource Management Act (ORMA)

In particular, the Ocean Resources Management Act (ORMA) requires state approvals for ocean uses to meet a number of broad policies and permit criteria including avoiding and minimizing significant adverse impacts to the environment, economy, and society. The MSP assists implementation of ORMA's requirements by identifying and analyzing important ocean resources and uses upfront and by further detailing the data, information, analyses, and processes needed to apply the policies and standards in ORMA and its regulations to permits, licenses or leases for new ocean uses in coastal waters. This, in turn, provides the information needed for Ecology to evaluate whether a federal action may have reasonably foreseeable effects on the state's coastal uses or resources and to ensure information and analyses are provided that help the state determine whether a federal action is consistent with the state's enforceable policies.

As part of its CZMP, Washington State may study federal waters and identify uses, resources and areas of federal waters that are of interest to the state. The state may not establish enforceable policies or regulatory standards for federal agencies, federal waters or federal lands. However, the data, information, policies, standards and recommendations contained within the MSP should assist federal agencies in the siting and regulation of new ocean uses, such as conducting environmental reviews, in federal waters adjacent to state waters. Ecology will be able to use the MSP data and maps to assess

[12] Federal projects/plans may trigger NEPA regardless of location.

coastal effects from a proposed project in federal waters, which will be helpful for conducting federal consistency reviews.

4.2 State Plan Implementation

The state will undertake a number of activities to implement the Marine Spatial Plan. These activities primarily fall into two categories: 1) Reviewing proposals for new ocean uses and 2) Other activities that assist in monitoring, evaluation, adaptation and revision of the plan.

Section 4.2.1, below, provides an overview of the state process for reviewing proposed new ocean uses, while Sections 4.3 - 4.8 provide spatial designations, standards, requirements, and recommendations that apply to proposed new ocean uses during different phases of the process. The following roadmap generally describes activities during these different phases of the process and sections of the management framework that apply to those phases.

<u>New Ocean Uses Roadmap</u>

Application Phase –

- Applicant consults MSP, review management framework, spatial designations, etc. and use to shape potential project ideas. (Entire MSP, Part 4, and Section 4.3)
- Applicant conducts pre-application meetings with agencies and stakeholder groups. Applicant continues to receive feedback from and respond to requests of agencies and others to refine proposed project. (Section 4.2.1)
- Applicant develops and submits required project and site-specific data and information through JARPA, SEPA checklist, and other mechanisms. (Section 4.4)
- Applicant submits additional project information, including construction/operation, mitigation, and other plans. (Section 4.7)

Review Phase –

- Lead agency assesses effects of and potential adverse impacts from project.
- Applicant submits written effects evaluation to Ecology. (Sections 4.5, 4.6 and 4.8)
- State agencies review project for consistency with existing laws and policies.

Section 4.2.2 outlines the other activities the state will take to implement the Marine Spatial Plan, such as monitoring and adapting the plan.

4.2.1 Implementation: Process for Reviewing Ocean Uses

1. **State agency coordination of review of renewable energy and other new ocean uses**
   As noted in section 4.1, state and local agencies are required to implement the MSP consistent with their authorities (RCW 43.372.050). In addition, state and local agencies are required to follow the planning and project review criteria for ocean uses [RCW 43.143.030].

State law requires the MSP to develop a framework for coordinating state agency and local government review of proposed renewable energy developments and to provide for timely review and action upon renewable energy development proposals while ensuring protection of sensitive resources and minimizing impacts to other existing or projected uses in the area [RCW 43.372.040(6)(f)]. If renewable energy projects are proposed in federal waters off Washington, the state will evaluate requesting the establishment of a taskforce with Bureau of Energy Management (BOEM).

State and local agencies will coordinate their roles and review of new ocean use proposals, including the following:

a. Pre-application Meetings – Request applicants hold meetings for potential project proposals with state and local agencies prior to submitting any applications for leases, licenses or permits. During the pre-application stage, state agencies will work together to:
    i. Encourage applicants to use the Marine Spatial Plan to understand potential use and resource conflicts.
    ii. Ensure applicants provide required data and information about the project and identify and coordinate with stakeholder groups as well as other governments, including local, tribal and federal government entities.
    iii. Communicate state and local policies, procedures and requirements, including those referenced in the Marine Spatial Plan.
b. Inventory – Review adequacy of site-specific inventory and requests for additional data or studies.
c. Effects Analysis – Review adequacy of effects evaluation and proposed mitigation measures and best management practices.
d. Plans – Review proposed construction and operation plans, including adequacy of prevention, monitoring, and response plans.

The interagency team (State Ocean Caucus) will assess needs to further specify how best to coordinate on individual, proposed projects and to create more detailed agreements for the review process, as needed.

2. **Government coordination (local governments, tribes, federal agencies)**
Tribes, local governments and federal agencies also play an important role in reviewing proposed ocean uses. The state is committed to collaborating and communicating with other government entities on the review of proposed ocean uses, including:
    a. Ensuring government entities receive early notification of proposed projects and activities. State agencies will share information regarding potential projects with other government entities and assist applicants in identifying other government entities to contact.

b. Discussing and determining how best to communicate and coordinate given a proposed project's type, location and scale. This may include convening a government coordination and review team to streamline communication and coordination between the applicant and government entities.
c. Understanding each others' interests, needs, and concerns regarding proposed ocean uses.
d. Recommending best available scientific information and other information to evaluate potential impacts of a proposed ocean use.

3. **Stakeholder input**
    a. Applicants should involve stakeholders and the public in all aspects of project development and review, including:
        i. Working collaboratively with stakeholders, including but not limited to fishing, aquaculture, maritime commerce, conservation, tourism, and recreation interests, and the Washington Coastal Marine Advisory Council;
        ii. Providing timely and effective notice, including early notification to the Washington Coastal Marine Advisory Council; and
        iii. Initiating both formal and informal pre-application discussions between stakeholders and applicants. [WCMAC recommendation 3.1.1 and 3.1.3]
    b. Applicants and agencies should provide stakeholders and the public with early notice and opportunity to review and comment at key stages on various studies and assessments produced for the project, including social, economic, and environmental impact assessments. Applicants or agencies should provide response to comments and third party review of economic assessments. [WCMAC recommendations 1.1.1, 1.3.2]

4. **Fisheries groups**

    The marine spatial planning law requires: "Any provision of the marine management plan that does not have as its primary purpose the management of commercial or recreational fishing but that has an impact on this fishing must minimize the negative impacts on the fishing. The team must accord substantial weight to recommendations from the director of the department of fish and wildlife for plan revisions to minimize the negative impacts." [RCW 43.372.040(8)].

    Therefore, the following process is set out for new ocean use projects to identify potential adverse impacts to state commercial and recreational fisheries and opportunities to avoid, minimize or mitigate those impacts [WCMAC recommendation 3.1.2 and RCW 43.143.030(2)].
    a. Applicants will notify the Washington State Department of Fish and Wildlife regarding a potential project proposal, as early as possible, including likely location(s) of the project.

b. The Washington Department of Fish and Wildlife will then notify established fishing advisory groups and license and permit holders for potentially affected commercial and recreational fisheries.
c. Applicants will coordinate with WDFW and commercial and recreational fisheries on an effective process and schedule to identify and discuss potential adverse impacts on commercial and recreational fisheries and opportunities to avoid, reduce, or minimize impacts, which may require multiple meetings. Applicants must hold at least one meeting with WDFW and affected commercial and recreational fisheries (See Section 4.2.1.5).
d. The director of WDFW will provide recommendations on ways to minimize impacts to fishing to Department of Ecology's federal consistency coordinator during the project review process [RCW 43.372.040(8)].

5. **State's review of federal activities under the Coastal Zone Management Act and Necessary Data and Information**:

The Washington Coastal Zone Management Program (administered by Department of Ecology) will review the consistency certification together with the required necessary data and information to ensure the project is consistent with the approved enforceable policies of the Washington Coastal Zone Management Program.

Specifically, 15 C.F.R part 930.58 describes that applicants for federal licenses, permits or leases must provide the Washington Coastal Zone Management Program with the consistency certification and:

- A detailed description of the proposed activity, its associated facilities, the coastal effects, and comprehensive data and information to support the applicant's consistency determination.
- Maps, diagrams, technical data and other relevant material, when written a description alone will not adequately describe the proposal.
- A copy of the federal application and all supporting material provided to the Federal agency.
- An evaluation that includes a set of findings related to the coastal effects of the proposal and its associated facilities to the relevant enforceable policies of the management program.

This Marine Spatial Plan Management Framework has organized and identified the specific information requirements that will satisfy these bullets above, for new ocean use projects; this includes: the fisheries process in Section 4.2, the spatial designations and recommendations in Section 4.3, information listed in Sections 4.4, 4.5, and 4.7, and compliance with applicable standards in Sections 4.6 and 4.8. Applicants will need to provide all of this information to enable the state to complete the consistency review process for a new ocean use project.

Additionally, for federal permit, license or lease applicants, the marine spatial plan identifies the following as Necessary Data and Information[13] for purposes of starting the CZMA 6-month review period for federal license or permit activities under 15 C.F.R. part 930, subpart D, and OCS Plans under 15 C.F.R part 930, subpart E, pursuant to 15 C.F.R. 930.58(a)(3):

- A notice of proposed project that applicant provided to Washington Coastal Marine Advisory Council[14] chair and membership (see Section 4.2.1.3(a)(ii)).
- A meeting with WDFW and affected commercial and recreational fisheries (see Section 4.2.1.4(c)).
- A list of alternatives considered, including other project sites, and reasons they were rejected [RCW 43.143.030(2)(b)]. Alternatives considered should be commensurate with the need for the proposed use [WAC 173-26-360(7)(d)].
- An assessment of the short and long-term economic and social impacts to the local and regional economies and communities, including tourism, recreation, fishing, aquaculture, navigation, transportation, public infrastructure, public services and community culture [WAC 173-26-360(t)]. Without this information the state will not be able to begin evaluating whether a project has potential for long term significant adverse impacts to coastal uses or will comply with current enforceable policies regarding social and economic impacts and [RCW 43.143.030(2)(c)(e)].

Within federal waters adjacent to Washington's state waters, Department of Ecology will review federal decisions to permit, license, or otherwise authorize ocean uses that have reasonably foreseeable effects on the state's coastal resources or uses for consistency with the Marine Spatial Plan and the applicable enforceable policies of the Washington Coastal Zone Management Program pursuant to the federal Coastal Zone Management Act and federal consistency regulations at 15 CFR Part 930.[15] The Department of Ecology may use the data and maps provided in the MSP for federal waters to assess coastal effects, but Washington's CZMA federal consistency concurrence or objection must be based on enforceable policies contained in the NOAA-approved Washington Coastal Zone Management Program.

[13] Other existing Necessary Data and Information is described in Washington's approved Coastal Program document.

[14] The Washington Coastal Marine Advisory Council was established in the office of the governor by RCW 43.143.050 with duties outlined in 43.143.060.

[15] Whether a particular federal license or permit activity proposed in federal waters is subject to Washington review depends on whether the state has, pursuant to 15 CFR § 930.53, (1) listed the federal authorization in the Washington Coastal Management Program, and (2) the proposed listed activity falls within a NOAA-approved "Geographic Location Description" (GLD). If Washington has not listed the activity and does not have a NOAA-approved GLD, the state can seek NOAA approval to review a project on a case-by-case basis as an "unlisted activity" pursuant to 15 CFR § 930.54. If a federal action, including the issuance of any federal authorizations, is subject to Washington CZMA review, it shall be supported by the information required in NOAA's regulations at either 15 CFR §§ 930.39, 930.58 or 930.76.

Federal actions, including the issuance of any federal authorizations that are subject to Washington's CZMP review, shall be supported by the information required in NOAA's regulations at either 15 CFR §§ 930.39, 930.58 or 930.76.[16]

6. Recommendations for federal agencies and federal waters

The state will follow the processes outlined above for reviewing new proposals for ocean uses. Furthermore, the state recommends federal agencies use the data, information, processes, and recommendations in the Marine Spatial Plan to guide their planning and review of proposed ocean uses, including in federal waters adjacent to Washington's Pacific Coast [as required by RCW 43.372.040(6)(d)]. Other sections that include references to federal activities or federal waters include Sections 4.2.1.5, 4.2.2, and 4.3.1.

4.2.2 Implementation: Other State Activities and Recommendations

Plan implementation by state agencies depends on available resources, capacity, priorities, and opportunities to leverage outside expertise and resources. To account for these factors and variations, the interagency team (State Ocean Caucus) will seek input on and further develop more detailed work plans that specify roles, tasks, timelines and processes for implementing these activities.

1. **Finalize Ecosystem Indicators**

Ecosystem indicators provide important context for decision-making. Ecosystem-level ecological integrity indicators provide important insights into the big-picture of ecosystem health. The current list of ecological and social indicators is too long to be an effective management tool or operationalized (Andrews, Coyle, & Harvey, 2015; Poe, Watkinson, Trosin, & Decker, 2015). While the economic indicators report provides a list of the top 5 economic indicators, the economic indicators report lists other potential economic indicators (Decker, 2015).[17] More work is needed to refine and select key indicators for monitoring ecosystem health for Washington's Pacific Coast as required by RCW 43.372.040(6)(a).

In implementing the plan, state agencies will work with federal agencies, tribes, Washington Coastal Marine Advisory Council, and others to refine the current list of ecosystem indicators using the steps outlined below.

[16] The regulations for federal consistency with approved state coastal programs are prescribed in 15 CFR Part 930. "Energy projects" are defined under 15 CFR § 930.123(c) to mean "projects related to the siting, construction, expansion, or operation of any facility designed to explore, develop, produce, transmit or transport energy or energy resources that are subject to review by a coastal State under subparts D, E, F or I of this part."

[17] From this report, suggested top economic indicators include: Gross Regional Product; Month-to-Month Unemployment, Per Capita Income, Job Diversity, and Poverty Rate.

The state interagency team (State Ocean Caucus) will leverage existing expertise and seek additional resources, where necessary, to follow through on these process steps to finalize ecosystem (ecological, social, and economic) indicators:

a. **Establish Management Priorities:** Convene state, federal and tribal resource managers to narrow large pool of potential ecosystem indicators to manageable list. Identify key priority indicators using conceptual models to refine why they are meaningful to various managers/management actions. Identify baselines and targets, where able.

b. **Enlist Experts to Perform Sensitivity Assessments:** Use models to test sensitivity of key indicators to management actions and scenarios. Evaluate effectiveness of current monitoring strategies.

c. **Monitor Indicators:** Create list of indicators for monitoring and pursue funding or adjustment in current monitoring efforts to address any gaps.

d. **Evaluate and Adapt Indicators:** Revisit indicators on regular basis and revise list of indicators as needed to target most effective set of monitoring for management needs.

2. **Science and Research Agenda**

The interagency team (State Ocean Caucus) will develop and implement a Pacific Coast Science and Research Agenda using an inclusive process with researchers, tribal, federal, state and local governments, the Washington Coastal Marine Advisory Council and others, to improve scientific information available for managing ocean resources. The Science and Research Agenda will allow the state to:

a. Continue to learn about Washington's Pacific Coast resources and activities;
b. Better understand potential effects of future developments and other human impacts; and
c. Increase understanding of projected impacts of climate change and other changes occurring in the marine system.

Building off of work begun in the marine spatial planning process, the state will bring together key scientists, ocean users, government agencies, and others to help the state identify data gaps, short- and long-term research priorities, potential partners and potential funding sources. Along with the efforts to finalize ecosystem indicators, the Science and Research Agenda provides a process to identify additional data gaps and to work to acquire new scientific data to strengthen plans [RCW 43.372.005(3)(b)] as well to determine how best to maintain, manage and update existing datasets, including enabling assessment of status and trends [WCMAC 4.1.1].

3. List substantially inconsistent existing management plans and provide recommendations on aligning plans [if needed, as required by 43.372.040(10)]

4. **Incorporate MSP into Washington's Coastal Zone Management Program.**

   As required by RCW 43.372.040(12), Department of Ecology plans to submit the final MSP to NOAA to be incorporated into its federally-approved Coastal Zone Management Program (CZMP). Once NOAA approves of the incorporation of any information and enforceable policies within the MSP into Washington's CZMP,[18] they are applicable to those federal actions that affect the uses or resources of Washington's coastal zone and are subject to the federal consistency requirements of the federal Coastal Zone Management Act.[19] (See 15 C.F.R. Part 923, Subpart H; and 15 C.F.R. § 930.53).

   Say more here about GLD application and other next steps?

5. **Sediment management planning and coastal erosion monitoring**

   Keeping sand in our coastal littoral systems (i.e. placing the sand on the beach or as close to the beach as possible) protects vulnerable coastal areas from the effects of coastal storms, helps maintain beaches and dunes, maintains and enhances important habitat, and supports public access and use of shorelines.

   a. As state funding allows, state agencies will continue to monitor shoreline change on the Washington coast and provide technical assistance to help communities understand the implications of data. [WCMAC rec. 1.2.4]

   b. State agencies will continue to support and advance implementation of the Mouth of the Columbia River Regional Sediment Management Plan and other local plans aimed at addressing navigation safety and beneficial use of dredge materials. [WCMAC rec 1.2.2]

[18] According to NOAA regulations and guidance, to be incorporated and approved into Washington's CZMP, the spatial designations, recommendations, and other standards included in the MSP and applied to ocean uses should be based on coastal effects and substantial evidence. They should not discriminate against a particular use, user or activity.

[19] Whether a particular federal license or permit activity proposed in federal waters is subject to Washington review depends on whether the state has, pursuant to 15 CFR § 930.53, (1) listed the federal authorization in the Washington Coastal Management Program, and (2) the proposed listed activity falls within a NOAA-approved "Geographic Location Description" (GLD). If Washington has not listed the activity and does not have a NOAA-approved GLD, the state can seek NOAA approval to review a project on a case-by-case basis as an "unlisted activity" pursuant to 15 CFR § 930.54. If a federal action, including the issuance of any federal authorizations, is subject to Washington CZMA review, it shall be supported by the information required in NOAA's regulations at either 15 CFR §§ 930.39, 930.58 or 930.76.

c. Through their permitting and authorizations, state agencies will work in partnership to evaluate new dredge disposal sites to ensure they are consistent with these other plans.

6. **Government Coordination**
   Washington State is committed to coordination and communication with local governments, tribes, federal agencies and other states on Washington's Marine Spatial Plan on an ongoing basis. The interagency team (State Ocean Caucus) will pursue mechanisms that foster recognition of and implementation of each others' plans. Such efforts can:
   a. Continue to improve our understanding of and management of ocean and human uses through ongoing data collection, maintenance, and prioritization.
   b. Foster greater collaboration and communication among government entities in an efficient and strategic manner.
   c. Assist in marine spatial plan implementation and adaptation, including integration with tribal plans and federal recognition and use of Washington's Marine Spatial Plan.

7. **Adaptive Management of plan and plan updates** [WCMAC 4.1.2]
   Since conditions change over time, plans benefit by having a regular process to review and adapt the plan as needed. Recognizing this need, this section addresses the adaptive management element, which is also required by the MSP law.[20] Using the processes described in the plan implementation section:
   a. The interagency team will address minor revisions to update information and clarify plan processes on an ongoing basis, as needed.
   b. The interagency team will identify new information and update data on the website, as resources allow. The mapping application is designed to automatically receive updated data from many, but not all, data sources.

   Using the Plan Performance Monitoring and Ecosystem Indicator Monitoring processes, the Washington Coastal Marine Advisory Council and others will be involved in regularly reviewing implementation of the Marine Spatial Plan and in identifying potential revisions to the Marine Spatial Plan. The interagency team recommends reviewing the entire plan at least every 8 years and that funding be provided for the plan review process. The interagency team will evaluate if conditions warrant a more major revision to the plan prior to the suggested review period.

[20] In addition, the plan should incorporate existing adaptive management strategies underway by local, state, or federal entities and provide an adaptive management element to incorporate new information and consider revisions to the plan based upon research, monitoring, and evaluation. [RCW 43.372.0040(6)(a)]

8. **Plan Monitoring and Reporting Measures**
   This is the performance monitoring goal, include "establish a performance management system to monitor implementation of any new marine spatial plan" [as required by RCW 43.372.005(3)(g)] and "Ensure all plans are linked to measureable environmental outcomes" [as required by RCW 43.372.005(3)(f)].

   The agencies will monitor plan performance to assess progress on implementation, including the following monitoring activities:

   a. Regularly engage Washington Coastal Marine Advisory Council, the public and others in discussions and reviews of implementation of the Marine Spatial Plan including: exchanging new research findings, information and data; discussing strategies to strengthen implementation, including identifying any existing management plans that are inconsistent with the Marine Spatial Plan[21]; and identifying emerging issues and potential plan revisions.

   b. On an ongoing basis, the state agencies will assess progress of the Marine Spatial Plan including the following activities:
      i. Establishing and monitoring ecosystem indicators.
      ii. Other activities implementing the plan described in this section.
      iii. Plan effectiveness and governance, including decisions, policy implementation, lessons-learned and adaptations.

      This information will be conveyed on the website and formally reported to the public annually.

   c. Four years following the adoption of the Marine Spatial Plan, Ecology, in coordination with the interagency team (State Ocean Caucus), will report to the State Legislature (i.e. marine waters committees in the House and Senate) on provisions of existing management plans the that are substantially inconsistent with the Marine Spatial Plan and make recommendations for eliminating the inconsistency per RCW 43.372.050(3) (see Section 4.1.5).

Insert graphic/table on plan potential performance indicators metrics?

4.3 Spatial Data, Designations and Recommendations

This section provides spatial designations and recommendations regarding use of spatial data developed in the plan. These spatial designations and recommendations are designed to provide early guidance on criteria for avoiding significant adverse impacts to important resources and uses through initial site selection [43.143.030(2)]. While this section can assist applicants in identifying impacted

[21] This will assist with reporting required four years after adoption of the plan per RCW 43.372.050(3).

resources and users and in early elimination of potential sites and scales of projects, using the spatial designations below does not guarantee that a project will satisfy state criteria.

4.3.1 Federal Waters and MSP maps

States do not have direct permitting authority in federal waters and the Coastal Zone Management Act (CZMA) does not confer such authority. Therefore, to meet CZMA requirements, state plans, enforceable policies, and Important Sensitive and Unique (ISU) areas must only apply to areas of state jurisdiction. The Washington Marine Spatial Plan is a planning framework for the state and will be incorporated into the NOAA-approved Washington Coastal Zone Management Program (CZMP). To meet the CZMA's definition of "enforceable policy" and NOAA's corresponding regulations, the Marine Spatial Plan only applies to state waters (3 nautical miles). Under the CZMA (15 CFR 930.53 and 930.54), Washington has the opportunity to review federal activities outside of state waters that have reasonably foreseeable effects on coastal resources and uses of the state. Any enforceable policies, ISUs and other designations in this MSP that ultimately get approved by NOAA would be applicable to this process [see section 4.2.2(5)].

The MSP maps [insert specific Figure references] and available on the MSP website, accompany the plan's enforceable policies to show spatially where certain areas and resources are located in both state and federal waters. The data and maps pertaining to federal waters are not enforceable elements of the Marine Spatial Plan for Washington's Pacific Coast [see sections 4.1.6 and 4.2.2.5 for more details on the linkage to the state's federally approved Coastal Zone Management Program].

4.3.2 Marine Spatial Planning Data and Analyses

The data and analyses contained in the MSP provides important context to enable the state to review and influence projects in federal waters. It also provides important information for federal agencies to use when reviewing proposals for leases, licenses or permits and for applicants to consider when proposing ocean uses. The plan's information provides applicants and governments with the ability to:

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

1. For projects in federal or state waters, applicants and agencies should use data presented in the Washington Marine Spatial Plan to understand and evaluate potential impacts to existing uses and resources, including any updated data available. Additional site specific analyses will be needed to further evaluate potential impacts from a particular proposal. Major data sources of the plan that should be reviewed and considered, include:
    a. Baseline information on Washington's Pacific Coast, including maps of existing uses and resources (see Part 2).
    b. Spatial analyses that aggregate and illustrate this information in various ways and convey key findings (see Part 3).

c. Spatial designations, recommendations and approaches that identify areas that are incompatible for certain projects or activities in state waters (Part 4 – this section).
d. The online, Marine Spatial Planning Mapping Application provides a reference to access and view baseline information on existing human uses and ocean resources, including any updated data available after adoption of the plan.

2. Other Ocean Uses - The Marine Spatial Plan provides baseline information and analyses that can assist applicants and agencies in evaluating potential impacts from other potential new ocean uses such as offshore aquaculture, mining (sand/gravel, methane hydrate), bioextraction, and new dredge disposal sites. There is limited spatial data available on the areas of interest for these potential uses and the spatial scale of some uses is too small for some of the plan's analyses (see Part 3) to be helpful in guiding specific siting.

4.3.3 Important, Sensitive and Unique Areas (ISUs)

State law requires the Marine Spatial Plan to identify environmentally sensitive and unique resources that warrant protective measures [RCW 43.372.040(6)(c)]. Therefore, the plan is designating Important, Sensitive and Unique (ISU) Areas in state waters to protect these areas from new ocean use developments while allowing existing uses such as fishing that currently occur within them. ISUs are specific areas that meet established criteria with the goal of protecting areas that have high conservation value, historic value or areas with key infrastructure from offshore development. Consistent with this goal, all offshore development is presumptively excluded from ISUs occurring in state waters.

The following ISUs have been proposed by reviewing current knowledge and available data developed through the MSP process [refer to ISU maps]. Data gaps exist in mapped information for ISUs and maps presented in the plan depicting ISUs may be superseded by more detailed, site-specific maps created with finer resolution data. ISU designation extends to those areas defined below wherever those ISUs occur and regardless of data gaps. Additional ISUs may be identified and designated at a later date. The criteria below were used to identify the current, proposed ISUs:

1. ISU Criteria
a. Areas that are environmentally sensitive or contain unique or sensitive species or biological communities that must be conserved and warrant protective measures [RCW 43.372.040(6)(c)].
b. Areas with known sensitivity and where the best available science indicates the potential for development to cause significant adverse impacts.
c. Areas with features that have limited, fixed and known occurrence.
d. Areas with inherent risk or infrastructure incompatibilities (e.g. buoys or cables).

2. ISUs
a. Biogenic Habitats: Aquatic vegetation and coral
b. Rocky Reefs
c. Bird colonies
d. Pinniped haul-outs

e. Historic and archaeological sites
f. Buoys and cables
g. Forage fish spawning areas

Offshore development[22] of any size is presumptively excluded from these ISUs within state waters, whether they are mapped or not. This presumption is rebuttable, if an applicant can demonstrate: i) that the ISU maps do not accurately characterize the resource or use based on new or substantial information or ii) by clear and convincing evidence that the project will cause no significant alteration of the resources of the ISU.

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[23] and Priority Habitats and Species[24], 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, many ISUs occur within estuaries. Since the density of uses and resources is higher in estuaries and the resolution and availability of current data is inadequate to aid in detailed siting, a more detailed and finer-scaled 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)].

4.3.4 Spatial Recommendations

1. Further evaluation of proposed projects, in state waters, should occur on a case-by-case basis. Projects would still need to provide information, meet criteria and statutory requirements, and follow the process described in the MSP. When proposing any projects, applicants should seek to avoid adverse impacts to existing uses and ecological areas in state waters. The greater the number of existing uses and ecologically important areas or the greater intensity of uses or ecologically important areas will likely result in a more difficult permitting process.

2. Specific to Renewable Energy: Where particular uses have similar coastal effects (e.g. structures or cables), applicants should use the criteria, information and process described for renewable energy as a starting point.

   In state waters on Washington's Pacific Coast, industrial-scale renewable energy facilities should not be permitted to avoid significant adverse impacts to existing uses and resources. Community-scale renewable energy facilities proposed for state waters

[22] Development under the jurisdiction of the Shoreline Management Act is defined at RCW 90.58.030(3)(a) as "a use consisting of the construction or exterior alteration of structures; dredging; drilling; dumping; filling; removal of any sand, gravel, or minerals; bulkheading; driving of piling; placing of obstructions; or any project of a permanent or temporary nature which interferes with the normal public use of the surface of the waters overlying lands subject to this chapter at any state of water level." For purposes of the MSP, "offshore development" means any development occurring in the plan study area that also meets the definition of a new ocean use.

[23] "Critical Saltwater Habitat" is defined in Shoreline Management Regulations at: WAC 173-26-221(2)(c)(iii)(C).

[24] Washington Department of Fish and Wildlife identifies and maintains information about "Priority Habitats and Species", more information at: http://wdfw.wa.gov/conservation/phs/.

will be further evaluated for consistency with state policies, plans and authorities through existing permitting processes. The following definitions apply:

a. **Industrial-scale Renewable Energy Facilities**: are those projects designed to provide energy at a scale for the regional power grid. Their size and energy generation is larger than those described as community-scale facilities and, therefore, would result in a larger footprint for development.

b. **Community-scale Renewable Energy Facilities:** are those projects designed to provide energy at scale for a local community, subset of a community, or group of communities. Community-scale energy projects have:
   i. A smaller size and energy generation levels more suited to the needs of a community than production and distribution to the regional grid and, therefore, a smaller footprint for development than an industrial-scale facility.
   ii. Strong local participation in and support for the project. Support may be demonstrated by a letter from city's Mayor or City Council.
   iii. Demonstrated economic benefit for the local community.

4.4 Project and Site-specific Data and Information

Applicants shall provide information listed below to regulating agencies at the earliest stage to assist with local and state required processes, permit, and leases [see WACs 197-11-100, 197-11-315, and 197-11-960]. This information enables evaluation of the magnitude of a project, the likelihood of effects from a project, and the significance of resources and uses that the project may affect. Applicants for construction and development activities in state marine waters can complete a Joint Aquatic Resources Permit Application (JARPA), which consolidates the initial information needed for multiple local, state, and federal permits and provides information on the status of SEPA review.

The list of project and site-specific data and information below is consistent with these existing application requirements (WAC 197-11-315) and provides specific details support agency implementation of existing state ocean policies and regulations and the MSP for Washington's Pacific Coast. In addition, applicants shall produce a written effects evaluation that addresses the requirements with any review standards that apply (See Sections 4.5, 4.6, and 4.8).

Table 4.4-1 Project and Site-specific data and information requirements

Type of Information	Including, but not limited to:	Specific types of data and information
Project information	Project purpose, need (i.e. local, state, or national need) and anticipated benefits Location of alternative sites considered and why they were rejected [RCW 43.143.030(2)(b)] Total project footprint: number and sizes of equipment, structures, and anchors Methods, techniques and activities	Alternatives considered should be commensurate with the proposed need of project (e.g. national need requires, national alternatives) [WAC 173-26-360(7)(d)].

	Transportation and transmission systems for service and support Onshore facilities Utility corridors used or created Materials to be disposed and methods Physical and chemical properties of any hazardous materials used or produced Proposed time schedule	
Physical and chemical conditions	Water depth Wave regime Current velocities Mixing characteristics (horizontal transport, vertical mixing and dispersal) Meteorological conditions Water quality	Survivability assessment for structures based on physical and geological conditions at the site and expected in the future. [WCMAC 1.2.6] Adjacent area affected by physical changes in currents, waves or sediment transport caused by project. [WAC 173-26-360(10)(a)]
Bathymetry	Bottom topography (bathymetry) Shoreline topography	
Geologic structure	Bottom substrate type (rock, mud, sand) Faults Submarine landslides Other geologic hazards Mineral deposits Hydrocarbon resources	
Biological features	Critical and sensitive habitats: wetlands; sea stacks; estuaries, etc. Areas used for breeding, spawning, nursery, foraging and areas of high productivity areas for marine biota: upwelling and estuaries. Bird colonies Marine species migration routes Fish and shellfish stocks and other biologically important species Endangered and threatened species or their habitats Recreationally or commercially important finfish or shellfish Scientific preserves, sanctuaries, parks, refuges, and other protected areas [WAC 173-26-360(7) and WCMAC 1.3.1]	
Historical, cultural or archaeological resources	Historic or culturally significant sites, including any archaeological sites or objects. [WAC 173-26-360(7)(l)]	For new uses that will impact the ocean floor, conduct a high-resolution seafloor

		archeological assessment [WCMAC 1.2.3]
Economic, social and cultural uses	Aquaculture operations (private and public lands), oyster reserves, shellfish growing areas. Commercial and recreational fishing Coastal communities economy Designated dredge disposal sites, ports and navigation Recreation, including parks and designated recreation areas [WAC 173-26-360(7)(k)] Scientific research Military uses Tourism Aesthetic resources Existing aquatic land leases Local shoreline master program environment designation [WCMAC 3.1.4] Waste water or other discharge [WAC 173-26-360(7)(t)]	Where applicable, inventory should include information on established, traditional and recognized times of uses. Current information on uses, including data covering multiple years and seasons, when available. [WCMAC 4.1.3] Conceptual site drawings of visual impacts [WCMAC 1.2.5]
Infrastructure	Existing infrastructure: navigation aids, cables, buoys or other fixed structures. Utility or pipeline corridors and transmission lines [WAC 173-26-360(7)(t)]	
Tribal uses	Usual and Accustomed Areas Tribal fishing and other uses	

Regulating agencies may determine and request other information from applicants to enable the evaluation of the effects of a proposed project [WAC 197-11-335].

4.5 Effects Evaluation

To enable evaluation of compliance with the state's ocean use policies and regulations, including the criteria at RCW 43.143.030(2), applicants must provide a written effects evaluation that complies with the contents in Section 4.5 and the applicable Review Standards (Sections 4.6 and 4.8). The evaluation must include the reasonably foreseeable adverse effects associated with the development, placement, operation, and decommissioning of a proposed new ocean use on Washington State's coastal resources or uses. This section does not provide the full list of other state laws and policies or requirements with which an applicant will have to demonstrate compliance (see Section 4.15 and 4.1.6).

The processes set out in Section 4.2.1 will assist applicants in identifying potentially adverse impacts to Washington's coastal resources and uses. For purposes of the evaluation, the submittal shall base the determination of "reasonably foreseeable adverse effects" on scientific evidence. Applicants should use up-to-date data that is adequate to evaluate the project and its potential effects. If new data gathering is required, it should be done at the applicants' expense. When it exists, data should include multiple years and multiple seasons within those years [WCMAC 4.1.3].

In addition, applicants shall provide information that addresses their compliance with the applicable review standards [Sections 4.6 and 4.8]. The evaluation shall describe the potential short-term and long-term effects of the proposed new ocean use on marine resources and uses of Washington's marine waters, continental shelf, onshore areas and coastal communities based on the required project and site-specific data [Section 4.4] and the following considerations:

1. Ecological Effects

Ecological effects include those on critical marine habitats and other habitats, and on the species those habitats support. The evaluation shall determine the probability of exposure and the magnitude of exposure and response, as well as the level of confidence (or uncertainty) in those determinations. The evaluation need not discuss highly speculative consequences. However, the evaluation shall discuss catastrophic environmental effects of low probability. Factors to consider include, but are not limited to:

- The time frames/periods over which the effects will occur;
- The maintenance of ecosystem structure, biological productivity, biological diversity, and representative species assemblages;
- Maintaining populations of threatened, endangered, or sensitive species;
- Vulnerability of the species, population, community, or the habitat to the proposed actions; and
- The probability of exposure of biological communities and habitats to adverse effects from operating procedures or accidents.

The following additional factors should be specifically evaluated and addressed:

a. Impacts to habitats and species, including:
    i. Impacts on migration routes and habitat areas of species listed as endangered or threatened, environmentally critical and sensitive habitats such as breeding, spawning, nursery, foraging areas, bird colonies, sea stacks, and wetlands, and areas of high productivity for marine biota such as upwelling and estuaries [WAC 173-26-360(7)(j)(n) and WCMAC 1.3.1]
    ii. Impacts to sensitive and important habitat of commercially, recreationally and ecologically valuable species [WCMAC 1.3.1]
    iii. Potential for direct injury or harm to species, including ESA listed and commercially valuable species (e.g. strikes, entanglement, etc.), or indirect injury related to exposure to noise, light, vibration, electromagnetic fields or other related stressors associated with the new use. [WCMAC 1.3.1]
    iv. Risk for invasive species introductions and impacts, if applicable. [WCMAC 1.3.1 and 1.3.4]
b. Effects to air and water quality [WAC 173-26-360(7)(t)], including potential degradation of water quality (chemicals, petroleum products, nutrients, oxygen, temperature, acidification, etc.). [WCMAC 1.3.1]
c. Effects to physical processes, including, but not limited to, currents and waves, sediment processes, coastal erosion and accretion, electromagnetic fields, acoustics and wave amplification. [WCMAC 1.3.1]
    i. For marine renewable energy projects, assess effects on upwelling oceanographic, ecosystem processes, beach accretion or erosion, and wave processes. [WAC 173-26-360(10)(a)(b)]

d. Effects of projected coastal erosion, future sea-level rise, and other climate change impacts on the proposed project over the anticipated life of the project [WCMAC 1.2.4]
e. Unintended impacts, including, but not limited to, impacts to the food chain, changes to physical processes, introduction of disease or genetic pollution, and access to existing resources. [WCMAC 1.3.1]

2. Current Uses

Evaluate the effects of the project on current uses and the continuation of a current use of ocean resources such as fishing, recreation, navigation, and port activities. Factors to consider include, but are not limited to:

a. Social and economic impacts to local and regional economies and communities; including tourism, recreation, fishing, aquaculture, navigation, transportation, public infrastructure, public services and community culture [WAC 173-26-360(t)]. The assessment should address:
    i. Short and long-term economic and social costs and benefits to the affected community, including social costs to vulnerable ocean users, potential impacts on taxpayers. The costs and benefits to larger economy (state, regional, national). Assessment of various scenarios, including full project footprint and scenarios where new use fails or is abandoned or decommissioned. [WCMAC recommendation 1.1.1]
    ii. The risk proposed structures pose for entangling fishing gear or other debris [WCMAC 1.2.7]
    iii. Established, traditional and recognized times of renewable ocean resource uses and site-specific impacts to current uses, including, but not limited to, fishing, aquaculture, and recreation. [WAC 173-26-360(7)(m) and WCMAC 3.1.4]

b. Recreational activities and experiences such as public access, aesthetics, and views [WAC 173-26-360(7)(s) and WCMAC 1.2.5]

c. Archeological and historical resources [WAC 173-26-360(7)(l)]; and

d. Transportation safety and navigation, including
    i. A vessel traffic risk assessment or a risk-based modeling to evaluate navigational safety risks. [WCMAC 1.2.1]

3. Natural and Other Hazards

Evaluate the potential risk to the new ocean use, in terms of its vulnerability to certain hazards and the probability that those hazards may cause loss, dislodging, or drifting of structures, buoys, or facilities. Consider both the severity of the hazard and the level of exposure it poses to the renewable marine resources and coastal communities. Hazards to be considered shall include:

a. Based on the characteristics of the use and the environment, risk of and potential impact from a probable disaster, including explosions, spills, and other disasters, on the environment, adjacent uses, and communities. [WAC 173-26-360(7)(o) and WCMAC 1.3.1]

4. Cumulative Effects

Evaluate the cumulative effects of a new ocean use project, including the shoreland components, in conjunction with effects of any prior phases of the project, past projects, other current projects, and probable future projects[25]. The evaluation shall analyze the biological, ecological, physical, and socioeconomic effects[26] of the new ocean use project and of other projects along the Washington coast, while also taking into account the effects of existing and future human activities, environmental baseline and variability, the regional effects of global climate change, and potential to reach tipping points of harm for existing uses or ocean resources [WCMAC 3.1.5].

In conducting the cumulative effects analysis, the applicant shall focus on the specific resources and uses that may be affected by the incremental effects of the proposed project and other projects in the same geographic area. The evaluation shall include but not be limited to consideration of whether:

a. The resource and uses are especially vulnerable to incremental effects;
b. The proposed project is one of several similar projects in the same geographic area;
c. Other developments in the area have similar effects on the resources and uses;
d. These effects have been historically significant for the resource and uses; and
e. Other analyses in the area have identified a cumulative effects concern.

4.6 Review Standards

This section provides the detailed review standards for applicants and for agencies to consider in determining possible significant adverse effects[27] from an ocean use project[28] on coastal uses and resources. An applicant's written effects evaluation (Section 4.5) must address compliance with the standards noted in this section and any specific standards that apply to the particular type of new use (Section 4.8). The regulating agencies shall use best available maps and data and may consider new

[25] Under NEPA, "cumulative impact" means "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 CFR. § 1508.7

[26] "Effects" and "impacts" include: (a) Direct effects, which are caused by the action and occur at the same time and place. (b) Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.
"Effects" and "impacts" as used in NEPA regulations are synonymous. Effects includes ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial.

[27] In applying ORMA's policies, "significant adverse impacts" must be consistent with the SEPA rules and process. WAC 173-26-360(7)(e): "The determination of significant adverse impacts should be consistent with WAC 197-11-330(3) and 197-11-794. The sequence of actions described in WAC 197-11-768 should be used as an order of preference in evaluating steps to avoid and minimize adverse impacts."

[28] This section details the general ocean use standards contained in WAC 173-26-360(7), which specifically apply to ocean uses that require a shoreline permit. Development under the jurisdiction of the Shoreline Management Act is defined at RCW 90.58.030(3)(a).

information that is sufficient and applicable. Furthermore, the processes outlined in Section 4.2.1 will further assist applicants in identifying approaches that will prevent, avoid and minimize impacts.

4.6.1 Siting and development standards for the construction, deployment or maintenance of an ocean use facility.

1. Consider practicable alternative deployment and placement of structures in proximity to the proposed project area that would have less adverse impact on identified resources and uses, including social and economic impacts to coastal communities [WAC 173-26-360(7)(a)(b)].
2. For marine renewable energy, be located, constructed, and operated in a manner that has no detrimental effects on beach accretion or erosion and wave processes. [WAC 173-26-360(10)(a)]
3. Be located to avoid adverse impacts on proposed or existing environmental and scientific preserves and sanctuaries, parks, and designated recreation areas. [WAC 173-26-360(7)(k)]
4. In locating mining facilities or oil and gas facilities, avoid and minimize impacts on shipping lanes or routes traditionally used by commercial and recreational fishermen to reach fishing areas. [WAC 173-26-360(7)(x)]

5. Routing:
   Ocean uses and their distribution, service, and supply vessels and aircraft should be:
   a. Located, designed, and operated in a manner that minimizes adverse impacts on fishing grounds, aquatic lands, or other renewable resource ocean use areas during the established, traditional, and recognized times they are used or when the resource could be adversely impacted. [WAC 173-26-360(7)(m)]
   b. Routed to avoid environmentally critical and sensitive habitats such as sea stacks and wetlands, preserves, sanctuaries, bird colonies, and migration routes, during critical times those areas or species could be affected. [WAC 173-26-360(7)(n)]

6. Associated on-shore facilities: In locating and designing on-shore facilities:
   a. Special attention should be given to the environment, the characteristics of the use, and the impact of a probable disaster, in order to assure adjacent uses, habitats, and communities adequate protection from explosions, spills, and other disasters. [WAC 173-26-360(7)(o)]
   b. Minimize impacts on existing water dependent businesses and existing land transportation routes to the maximum extent feasible. [WAC 173-26-360(7)(p)]
   c. Be located in communities where there is adequate sewer, water, power, and streets. Within those communities, if space is available at existing marine terminals, the onshore facilities should be located there. [WAC 173-26-360(7)(q)]
      i. For marine renewable energy projects, locate distribution facilities and lines in existing rights of way and corridors, whenever feasible [WAC 173-26-360(10)(c)]

7. Construction and Operation
   a. Use methods and scheduling of construction activities that minimizes impacts on tourism, recreation, commercial fishing, local communities and the environment [WAC 173-26-360(7)(r)].

b. Use methods and designs that prevent, avoid, and minimize adverse impacts such as noise, light, temperature changes, turbidity, water pollution and contaminated sediments on the marine, estuarine or upland environment. Such attention should be given particularly during critical migration periods and life stages of marine species and critical oceanographic processes. [WAC 173-26-360(7)(u)]
c. For mining, marine renewable energy or oil and gas uses, be designed, constructed, and operated in a manner that minimizes environmental impacts on the coastal waters environment, particularly the seabed communities, and minimizes impacts on recreation and existing renewable resource uses such as fishing. [WAC 173-26-360(7)(w)]

8. Compensation for impacts
    a. Impacts on commercial resources, such as the crab fishery, on noncommercial resources, such as environmentally critical and sensitive habitats, and on coastal uses, such as loss of equipment or loss of a fishing season, should be considered in determining compensation to mitigate adverse environmental, social and economic impacts to coastal resources and uses. [WAC 173-26-360(7)(f)]
    b. Allocation of compensation to mitigate adverse impacts to coastal resources or uses should be based on the magnitude and/or degree of impact on the resource, jurisdiction and use. [WAC 173-26-360(7)(g)]

4.6.2 Additional standards and recommended approaches to protect specific coastal resources and uses of the state

The following table provides additional state standards and recommended approaches for new ocean uses[29] designed to protect state coastal resources and uses. Additional standards requirements apply to offshore aquaculture, disposal, and mining (See Section 4.8).

[29] Requirements of WAC 173-26-360(7) apply to ocean uses that require a shoreline permit.

Table 4.6.2-1. Goals, Additional Standards and Approaches to Protect Washington State Coastal Uses and Resources

Key Washington Ocean Resource Policies[30] & MSP Objectives	Standards	Approaches include, but are not limited to:
Ecological		
• Foster healthy and resilient marine ecosystem functions, biodiversity and habitats. (MSP Objective 3) • ORMA 43.143.030(2)(d).	• Prevent, avoid, and minimize adverse impacts on migration routes and habitat areas of species listed as endangered or threatened, environmentally critical and sensitive habitats such as breeding, spawning, nursery, foraging areas and wetlands, and areas of high productivity for marine biota such as upwelling and estuaries [WAC 173-26-360(7)(j)].	• Schedule construction to avoid critical migration times, vulnerable life stages of species, and important oceanographic processes. • Use designs and methods that prevent, avoid and minimize disturbance to species, habitats, water quality, and ecological processes.
Historic or Cultural Resources		
• Sustain diverse traditional uses and experiences to ensure continuity of WA's coastal identity, culture, and high quality of life. (MSP Objective 2) • Provide recommendations for uses that protect and enhance the aesthetic quality of marine environment, maritime activities, marine culture and sense of place. (MSP actions)	• Avoid and minimize adverse impacts on historic or culturally significant sites in compliance with chapter 27.34 RCW. Permits in general should contain special provisions that require permittees to comply with chapter 27.53 RCW if any archaeological sites or archaeological objects such as artifacts and shipwrecks are discovered. [WAC 173-26-360(7)(l)]	• Conduct high-resolution seafloor surveys for resources.
Coastal Uses: Existing uses such as aquaculture, fishing, navigation, recreation and tourism		
• Protect and preserve healthy existing natural resource- based economic activity on the Washington Coast. (MSP Objective 1). • ORMA 43.143.030(2)(e).	• Minimize impacts on existing water dependent businesses and existing land transportation routes to the maximum extent feasible. • Avoid and minimize adverse social and economic impacts, including detrimental effects to tourism, recreation, fishing, aquaculture, navigation, transportation, public infrastructure, public services, and community culture. [WAC 173-26-360(7)(p)(t)].	• Space structures to maximize compatibility with existing uses. • Minimize project footprint. • Schedule construction activities to minimize impacts to existing users. • Mitigate possible hazards to navigation and, provide practicable opportunities for vessel transit, at the project location.

[30] This list is not exhaustive and is intended to highlights particular policies that are relevant to particular state coastal resources and uses.

Recommended Additional Approaches To Avoid and Minimize Impacts to Coastal Uses

In addition to the goals, standards, and approaches noted above, the following provides a list of specific approaches for applicants to consider in project siting, design, engineering, construction and operation. These approaches may contribute toward addressing Washington's ocean use standards to avoid and minimize adverse impacts to particular coastal uses. Use of any or all of these recommended approaches does not guarantee issuance of state or local permits or authorizations.

1. Aquaculture
    a. Minimize impacts to existing shellfish aquaculture growing areas and operations.
    b. Minimize disruption to physical processes and water quality of estuaries.

2. Fishing
    a. Minimize the number of and size of anchors, spacing structures for greater compatibility with existing uses, and burying cables in the seafloor and through the shoreline. [WCMAC new TC recommendation]
    b. Minimize the displacement of fishers from traditional fishing areas, and the related impact on the travel distance and routing required to fish in alternative areas.
    c. Minimize the compaction of fishing effort caused by the reduction in the areas normally accessible to fishers.
    d. Minimize the economic impact resulting from the reduction in area available for commercial and recreational fishing for the effected sectors and ports.
    e. Limit the number and size of projects that are located in an area to minimize the impact on a particular port or sector of the fishing industry.
    f. Consider the distribution of projects and their cumulative effects.

3. Navigation
    a. Minimize disruption to traditional and heavily used vessel transit routes, particularly those navigation lanes that are federally-designated or negotiated with other users.

4. Recreation
    a. Minimize restrictions on public access, particularly in areas with high intensity of use or with a community of historical users.
    b. Minimize impacts to areas with unique or special qualities, including the natural environment and aesthetics, associated with recreational use relative to the state or region.
    c. Include measures that ensure protection of public health and safety.

4.7 Project Construction and Operation Plan

An applicant must submit a construction and operation plan as a condition of approval for a state permit, license, lease, or other authorization [insert relevant RCW/WAC language]. The construction and operation plan must describe the procedures and methods the operator will employ to ensure facility compliance with standards and other conditions of the permit, license related to effects on the

environment, safety and coastal uses. At a minimum, the construction and operation plan must include the following components:

1. **Facility Development Plan**, which describes the detailed physical and operational components of the proposed facility and includes technical information on the installation and deployment activities and methods, structures, easements, vessels, and construction schedule.

2. **Contingency Plan**, which describes how facility operator will respond to emergencies caused by a structural or equipment failure due to human error, weather, geologic or other natural event.

3. **Inspection Plan**, which describes the routine inspection program to ensure mechanical, structural and operational integrity of facilities.

4. **Monitoring Plan**

   Agencies shall require applicants to provide pre-project environmental baseline inventories and assessments and monitoring of ocean uses when little is known about the effects on marine and estuarine ecosystems, renewable resource uses and coastal communities or the technology involved is likely to change. [WAC 173-26-360(7)(v)]

   A monitoring plan provides for a standardized program to assess for potential impacts identified by the inventory and effects evaluation. Impacts of particular concern to address, where applicable, include:
   - An invasive species prevention, monitoring and control plan for projects that pose a risk for invasive species introductions. [WCMAC 1.3.4]
   - A plan to monitor structures for fishing gear and other debris entanglement and a plan to mitigate impacts. [WCMAC 1.2.7]
   - For aquaculture facilities: prevention, monitoring and response plans that address escapement, disease and nutrient pollution. [WCMAC 2.1.1]

   Monitoring shall be sufficient to accurately document and quantify the short-term and long-term effects of the actions on the affected resources and uses. At a minimum, monitoring plans shall describe:
      a. Specific study objectives and methods, including collection of baseline data, hypotheses tested, field sampling and data analysis, and controls (such as control sites).
      b. Documentation that study design is scientifically appropriate and adequate to address objectives.
      c. Methods for reporting and delivering data, analyses to agencies and for public involvement in review of monitoring activities.

5. **Adaptive Management Plan**, which provides a mechanism for incorporating new information and findings into the operation and management of the project. The plan shall describe processes for applying adaptive measures. When monitoring results indicate standards are not being met, adaptive measures designed to bring the operation into compliance will be applied to operation of the project.

6. **Decommissioning Plan**

   An applicant must demonstrate that "plans and sufficient performance bonding are provided to ensure that the site will be rehabilitated after the use or activity is completed" [RCW 43.143.030(2)(g)]. The decommissioning plan[31] must include:

   a. A proposed schedule and description of removal methods.
   b. Plans for disposing of the removed facilities.
   c. The resources, conditions and uses that could be affected by the decommissioning activities and methods for minimizing impacts to renewable ocean uses such as fishing [WAC 173-26-360(7)(y)].
   d. Mitigation to protect sensitive resources during decommissioning
   e. Use of new information and new technologies about environmental impacts to ensure state-of-the-art technology and methods are used [WAC 173-26-360(7)(h)].
   f. Methods to survey area after removal to determine any effects on marine life
   g. Rehabilitation measures to restore seabed to original state to the maximum extent feasible [WAC 173-26-360(7)(y)].

7. **Financial Assurance Plan**

   The applicant shall provide a financial assurance compliance plan that describes how the holder will comply with the state requirements for financial assurance. The plan must assure insurance, bonds or other financial securities are adequate to address: resources required to decommission and rehabilitate the site, "the effects of planned and unanticipated closures, completion of the activity, reasonably anticipated disasters, inflation, new technology, and new information about the environmental impacts to ensure that state of the art technology and methods are used" [WAC 173-26-360(7)(h)]. Washington State Department of Natural Resources has authority to require financial security based on the cost of enforcing terms and conditions for leases of state-owned aquatic lands [RCW 79.105.330 and WAC 332-30-122].

4.8 Standards Specific to New Use type

Since different uses may generate different impacts, this section provides the additional, existing requirements and standards that are specific to a particular types of new ocean uses[32] based on their potential effects to specific coastal resources or uses of concern, including offshore aquaculture, energy production, ocean mining, and ocean disposal.

[31] Discontinuance or shutdown of oil and gas, mining or energy producing ocean uses should be done in a manner that minimizes impacts to renewable resource ocean uses such as fishing, and restores the seabed to a condition similar to its original state to the maximum extent feasible. [WAC 173-26-360(7)(y)]

[32] The MSP scope specifically address certain other new ocean uses, however, existing ocean use regulations in WAC 173-26-360 provide standards specific to these other uses such as ocean research, ocean salvage, transportation and oil and gas activities.

Table 4.8-1: Additional Requirements Specific to New Use Type

Ocean Use	Definition	Effects Evaluation	Use-Specific Standards	Other related recommendations or requirements
Offshore Aquaculture	ADD DEFINITION…	Assess the risk of pesticide controls [WCMAC 2.1.4]	Avoid and minimize impacts to pinnipeds, cetaceans, sharks and other species through facility design, siting and operation. [WCMAC 2.1.2]	Deny permits for offshore aquaculture facilities with species that pose a significant risk of introducing disease, impairing fish health, or potentially introducing genetic pollution into the area, in accordance with WAC 276-76-100.[33] [WCMAC 2.1.3]
Ocean mining	Ocean mining includes such uses as the mining of metal, mineral, sand, and gravel resources from the sea floor. [WAC 173-26-360(9)]	Assess effects on beach and sediment processes.	Located and operated to: • Avoid detrimental effects on ground fishing or other renewable resource uses. • Avoid detrimental effects on beach erosion or accretion processes. [WAC 173-26-360(9)(a)(b)]	Consider habitat recovery rates in reviewing permits. [WAC 173-26-360(9)(c)]
Energy production	Energy production uses involve the production of energy in a usable form directly in or on the ocean rather than extracting a raw material that is transported elsewhere to produce energy in a readily usable form. [WAC 173-26-360(10)]	Assess the effect on upwelling and other oceanographic and ecosystem processes. [WAC 173-26-360(10)(b)]	Located, constructed and operated in manner that: • Has no detrimental effects on beach accretion or erosion and wave processes • Located in existing utility rights of way and corridors whenever feasible, rather than creating new corridors (associated distribution facilities) [WAC 173-26-360(10)(c)]	

[33] WAC 276-76-100: A permit may be denied based on the determination by the director [of Washington Department of Fish and Wildlife] of significant genetic, ecological or fish health risks of the proposed fish rearing program on naturally occurring fish and wildlife, their habitat or other existing fish rearing programs.

Ocean Use	Definition	Effects Evaluation	Use-Specific Standards	Other related recommendations or requirements
Ocean disposal	Ocean disposal uses involve the deliberate deposition or release of material at sea, such as solid wastes, industrial waste, radioactive waste, incineration, incinerator residue, dredged materials, vessels, aircraft, ordnance, platforms, or other man-made structures. [WAC 173-26-360(11)]	Habitat enhancement.	Sites: • Located and designed to prevent, avoid, and minimize adverse impacts on environmentally critical and sensitive habitats, coastal resources and uses, or loss of opportunities for mineral resource development. • For which the primary purpose is habitat enhancement may be located in a wider variety of habitats. [WAC 173-26-360(11)(c)]	• Storage, loading, transporting, and disposal of materials shall be done in conformance with local, state, and federal requirements for protection of the environment. • Allowed only in sites that have been approved by Ecology, DNR, US EPA, and US Army Corps of Engineers, as appropriate. [WAC 173-26-360(11)(b)] • Sited in areas where the (dredge) disposal will provide beneficial use to the greatest extent possible. [WCMAC 1.2.2]
Oil and gas uses and activities	Oil and gas uses and activities involve the extraction of oil and gas resources from beneath the ocean.[34] [WAC 173-26-360(8)]		Sites: • When feasible, facilities located and designed to permit joint use in order to minimize adverse impacts to coastal resources and uses and the environment. • Upland disposal of oil and gas construction and operation materials and waste products such as cuttings and drilling muds should be allowed only in sites that meet applicable requirements. [WAC 173-26-360(8)(a)(f)] Facilities including pipelines should be located, designed, constructed, and maintained in conformance with	Special attention to: • The availability and adequacy of general disaster response capabilities in reviewing ocean locations for oil and gas facilities. • The response times for public safety services such as police, fire, emergency medical, and hazardous materials spill response services in providing and reviewing onshore locations for oil and gas facilities. • Adequacy of plans, equipment, staffing, procedures, and demonstrated financial and performance capabilities for preventing, responding to, and

[34]Note: RCW 43.143.010(2) prohibits leasing of Washington's state waters for oil or gas exploration, development or production.

Ocean Use	Definition	Effects Evaluation	Use-Specific Standards	Other related recommendations or requirements
			applicable requirements but should at a minimum ensure adequate protection from geological hazards such as liquefaction, hazardous slopes, earthquakes, physical oceanographic processes, and natural disasters. [WAC 173-26-360(8)(e)].	mitigating the effects of accidents and disasters such as oil spills. If a permit is issued, it should ensure that adequate prevention, response, and mitigation can be provided before the use is initiated and throughout the life of the use. [WAC 173-26-360(8)(c)]
Transportation	Ocean transportation includes such uses as: Shipping, transferring between vessels, and offshore storage of oil and gas; transport of other goods and commodities; and offshore ports and airports. Addresses transportation activities that originate or conclude in Washington's coastal waters or are transporting a nonrenewable resource extracted from the outer continental shelf off Washington. [WAC 173-26-360(12)]	• Assess impact on renewable resource activities such as fishing and on environmentally critical and sensitive habitat areas, environmental and scientific preserves and sanctuaries. [WAC 173-26-360(12)(a)]	Siting: • When feasible, hazardous materials such as oil, gas, explosives and chemicals, should not be transported through highly productive commercial, tribal, or recreational fishing areas. If no such feasible route exists, the routes used should pose the least environmental risk. • Located or routed to avoid habitat areas of endangered or threatened species, environmentally critical and sensitive habitats, migration routes of marine species and birds, marine sanctuaries and environmental or scientific preserves to the maximum extent feasible. [WAC 173-26-360(12)(b)(c)]	
Ocean research	Ocean research activities involve scientific investigation for the purpose of		• Located and operated in a manner that minimizes intrusion into or disturbance of the coastal waters environment consistent with the	• Complies with scientific collection requirements per RCW 77.12.047, if relevant. Encourage:

Ocean Use	Definition	Effects Evaluation	Use-Specific Standards	Other related recommendations or requirements
	furthering knowledge and understanding.[35] [WAC 173-26-360(13]		purposes of the research and the intent of the general ocean use guidelines • Completed or discontinued in a manner that restores the environment to its original condition to the maximum extent feasible, consistent with the purposes of the research. [WAC 173-26-360(13)(c)(d)].	• Coordination with other ocean uses occurring in the same area to minimize potential conflicts. • Public dissemination of ocean research findings. [WAC 173-26-360(13)(a)(e)
Ocean salvage	Ocean salvage uses share characteristics of other ocean uses and involve relatively small sites occurring intermittently. Historic shipwreck salvage which combines aspects of recreation, exploration, research, and mining is an example of such a use. [WAC 173-26-360(14)]		Nonemergency ocean salvage: • Conduct in a manner that minimizes adverse impacts to the coastal waters environment and renewable resource uses such as fishing. • Not be conducted in areas of cultural or historic significance unless part of a scientific effort sanctioned by appropriate governmental agencies. [WAC 173-26-360(14)(a)(b)]	

[35] WAC 173-26-360 also states: "Investigation activities involving necessary and functionally related precursor activities to an ocean use or development may be considered exploration or part of the use or development. Since ocean research often involves activities and equipment, such as drilling and vessels, that also occur in exploration and ocean uses or developments, a case by case determination of the applicable regulations may be necessary." RCW 43.143.010(2) prohibits leasing of state waters for oil or gas exploration, development or production.

Citations

Andrews, K. S., Coyle, J. M., & Harvey, C. J. (2015). *Ecological indicators for Washington State's outer coastal waters*. Seattle, WA: Northwest Fisheries Science Center. Report to the Washington Department of Natural Resources. Retrieved from http://www.msp.wa.gov/wp-content/uploads/2015/03/NWFSC_EcosystemIndicatorReport.pdf [Source type 11].

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

Poe, M. R., Watkinson, M. K., Trosin, B., & Decker, K. (2015). *Social indicators for the Washington coast integrated ecosystem assessment* (A report to the Washington Department of Natural Resources; Interagency Agreement No. IAA 14-204). Retrieved from http://www.msp.wa.gov/wp-content/uploads/2015/03/SeaGrant_SocialIndicatorsReport.pdf [Source Type 11]

Proposed New Policy Recommendations
For WCMAC Discussion and Approval
February 15, 2017

Background

Last fall Dale submitted 20 additional recommendations on behalf of the Coalition of Coastal Fisheries (CCF) that he requested WCMAC consider. The Steering Committee asked the Technical Committee to review five of them. The Technical Committee discussed them at length and forwards the following revised recommendations to WCMAC for consideration.

1. WCMAC recommends that when decision-makers calculate amounts for performance bonding, including applying the criteria required by RCW 43.143.030 (g), the amount should be adequate to fully remove the project and return the site to pre-project condition, and should include costs to cover projected inflation and a contingency amount.

a. CCF Recommendation #11:
   Recommend REAL dollar values for actual situations for BONDING amounts are prescribed with cost indexed to inflation with escalation clause for any industrial development permits in coastal marine waters on a 5 year escalation schedule.
b. Technical Committee Discussion
   - Recommended focusing on criteria rather than a specific amount.
   - Noted the requirement already included in ORMA (see below)
   - Supported including inflation and contingency costs

For reference, here is the language from RCW 43.143.030 (highlighting added):

43.143.030
Planning and project review criteria.

(1) When the state of Washington and local governments develop plans for the management, conservation, use, or development of natural resources in Washington's coastal waters, the policies in RCW 43.143.010 shall guide the decision-making process.
(2) Uses or activities that require federal, state, or local government permits or other approvals and that will adversely impact renewable resources, marine life, fishing, aquaculture, recreation, navigation, air or water quality, or other existing ocean or coastal uses, may be permitted only if the criteria below are met or exceeded:
(a) There is a demonstrated significant local, state, or national need for the proposed use or activity;
(b) There is no reasonable alternative to meet the public need for the proposed use or activity;
(c) There will be no likely long-term significant adverse impacts to coastal or marine resources or uses;
(d) All reasonable steps are taken to avoid and minimize adverse environmental impacts, with special protection provided for the marine life and resources of the Columbia river, Willapa Bay and Grays Harbor estuaries, and Olympic national park;
(e) All reasonable steps are taken to avoid and minimize adverse social and economic impacts, including impacts on aquaculture, recreation, tourism, navigation, air quality, and recreational, commercial, and tribal fishing;
(f) Compensation is provided to mitigate adverse impacts to coastal resources or uses;
(g) Plans and sufficient performance bonding are provided to ensure that the site will be rehabilitated after the use or activity is completed; and
(h) The use or activity complies with all applicable local, state, and federal laws and regulations.
[1989 1st ex.s. c 2 § 11.]

2. WCMAC recommends that applicants use design, engineering, and construction methods that avoid adverse impacts on fishing and other existing uses such as the potential for entangling fishing gear. Such

methods may include, but are not limited to, minimizing the number of and size of anchors, spacing structures to allow for greater compatibility with existing uses, and burying cables in the seafloor and through the shoreline. Applicant's monitoring plans should address whether any of the measures used in the project are performing as desired and response plans should provide remedies for any failures.

a. CCF Recommendation #12:
Recommend any fixed structures in coastal waters are single point anchored and spaced far enough apart to avoid conflict with existing uses including fishing.

CCF Recommendation #13:
Recommend all cables in coastal waters are required to be adequately buried with inspections to ensure successful burial remains buried and cross well under any beaches utilizing horizontal drilling.

b. Technical Committee Discussion
- Voiced concerns with being too prescriptive and encouraged a focus on desired outcomes rather than specific design requirements.

Additional Recommendations from CCF

- CCF also proposed the following recommendations, which were referred to the Technical Committee:
  - CCF Recommendation 17
    Recommend that new coastal marine water industrial development principles, criteria and standards be developed for new industrial development that are protective of existing uses that clearly define a pathway to Yes, NO, Conditional marine water development permits. (review existing standard & suggest addition, change)
  - CCF Recommendation 18
    Recommend that at this time the only prudent new coastal marine water industrial development permitted may be small (define small, 5 units or less?) well placed community development projects that can be shown to minimize conflict with existing uses and ecological integrity that have positive benefit for those adjacent communities. Small also means not to exceed 2 square miles.

- The Technical Committee felt these were addressed in the draft Management Framework and did not propose new policy recommendations for WCMAC consideration.

February 15 2017

Washington Coastal Marine Advisory Council
Draft Work Plan

The WCMAC work plan is a living document. It will be continually updated and used as a guide for planning WCMAC meetings. WCMAC members are encouraged to identify agenda requests as early as possible.

Meeting	Information	Advice/Action
February 15, 2017	• Technical Committee update • Overview on preliminary draft MSP	• Approve/discuss Technical Committee recommendations • Input on MSP: Management Framework/Preliminary Plan
May 10, 2017	• Update on draft MSP • Post MSP work plan	• Topics for WCMAC work plan
September 27, 2017	• MSP implementation: ecosystem indicators, science agenda, etc. •	• Plan implementation activities

Other topics, issues, or recommendations may be addressed through the process set up by the Council and as time and resources allow.