DEPARTMENT OF
ECOLOGY
State of Washington

Marine Spatial Planning in Washington

Final Report and Recommendations of the State Ocean Caucus to the Washington State Legislature

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Acknowledgements

This report is the culmination of a six-month process examining marine spatial planning in Washington and was developed utilizing existing state resources. State Ocean Caucus representatives, federal liaisons, and observers participated in the process and graciously offered their time and expertise in compiling and analyzing information, developing the recommendations, and presenting the results in the report. Bob Nichols from the Governor's office chaired the State Ocean Caucus and Jennifer Hennessey from Department of Ecology served as State Ocean Caucus coordinator. Table 1 provides a list of State Ocean Caucus members and participants. These individuals provided remarkable dedication to advance this process considering the short timeline and funding constraints for producing the report.

In addition, members of the public participated in shaping this report and recommendations by engaging with the State Ocean Caucus throughout the development of the report. The State Ocean Caucus appreciates the involvement of various groups and citizens to increase participation and engagement in the report process and to provide their perspectives on marine spatial planning.

Executive Summary

Marine spatial planning (MSP) is a management tool that is increasingly being used around the country and world to coordinate decisions for coastal and ocean activities and environments in a comprehensive plan. MSP uses data on the location of important marine resources, human activities, and other key components to determine the most appropriate locations for particular uses to achieve ecological, economic and social objectives. The planning process often displays and analyzes this information using maps and other tools to inform the development of the plan.

A variety of local, state, tribal and federal jurisdictions already manage many different aspects of marine uses and resources under a number of existing regulations and authorities in Washington. However, this traditional approach to management does not always comprehensively address overall health of our resources and uses in a coordinated and proactive manner. MSP is a process to improve and align decisions for marine waters in a comprehensive plan with common goals and shared outcomes and, as a result, can increase efficiency of decision-making across jurisdictions. It can also improve the ability for agencies to consider impacts to the whole system, rather than deal with them at a project level in reaction to particular proposals. A marine spatial plan can also integrate with existing management activities and help fill gaps in management. A plan will not, in itself, institute new regulations. Rather, a marine spatial plan can be implemented using existing regulations and authorities of agencies across local, state, tribal and federal jurisdictions.

Washington State enacted a new law on marine spatial planning in March 2010 (Substitute Senate Bill 6350). In this law, the Legislature tasked the Governor's office with chairing an interagency team to assess and report on information related to MSP including summarizing current information and providing recommendations on MSP such as establishing a framework for Washington. To develop this report, the Governor's office used the State Ocean Caucus; an existing state interagency team chaired by the Governor's office and coordinated by the Washington Department of Ecology. Representatives from coastal Marine Resources Committees and two federal agencies were also included. Representatives from tribal governments also participated with the State Ocean Caucus in the development of this report.

Through an executive order, President Obama recently adopted a national ocean policy and a framework for coastal and marine spatial planning. The federal framework for coastal and marine spatial planning sets forth general goals, planning principles, and a flexible process for establishing regional plans guided by national standards. Importantly, it also allows the incorporation and acknowledgement of marine spatial plans developed by states. As a result, Washington's law and this legislative report help our state demonstrate how to proceed with planning, engage in federal and regional efforts, and leverage opportunities for advancing the state's interests.

The State Ocean Caucus developed the following twenty-one recommendations for advancing MSP in Washington State. Summaries of the recommendations are listed below. For the complete text of each recommendation, please follow the links to Chapter 3 after each summary below or refer to Appendix G.

Legislative Report Requirements

Substitute Senate Bill 6350 (Section 4)

1) The marine interagency team created in section 3 of this act must assess and recommend a framework for conducting marine spatial planning and integrating the planning into existing management plans. The assessment must include, but not be limited to, recommendations for:
   a) Including a marine spatial component into the Puget Sound action agenda;
   b) Integrating marine spatial planning into management efforts for the Columbia river estuary, working with the state of Oregon; and
   c) Developing a marine management plan containing a marine spatial component for the outer coast, to be incorporated within the comprehensive marine management plan authorized under section 6 of this act.
2) The assessment authorized under subsection (1) of this section must also:
   a) Summarize existing goals and objectives for: Plans in Puget Sound, the Columbia river estuary, and the outer coast, including the Puget Sound action agenda; shoreline plans for shorelines around the state; management plans for state-owned aquatic lands and their associated waters statewide; and watershed and salmon recovery management plans;
   b) Develop recommended goals and objectives for marine spatial planning that integrate with existing policies and regulations, and recommend a schedule to develop marine ecosystem health indicators, considering the views and recommendations of affected stakeholders and governmental agencies;
   c) Summarize how the existing goals and objectives as well as recommended goals and objectives are consistent or inconsistent with those adopted by other states for the west coast large marine ecosystem, and with those goals and objectives articulated in relevant national oceans policies and the national framework for marine spatial planning;
   d) Identify the existing management activities and spatial data related to these priorities and objectives and the key needs for incorporating marine spatial planning into existing statewide plans; and
   e) Provide recommendations on achieving a unified approach to database management and delivery that would support marine spatial planning throughout the state.
3) The results of this assessment must be provided to the appropriate legislative committees by December 15, 2010.
4) This section expires June 30, 2011.

Summary of Recommendations

Focus of Marine Spatial Planning in Washington State

Recommendation 1 – Planning focus

A marine spatial plan for Washington should focus on renewable ocean energy but could also address a range of other issues, including but not limited to aquaculture, marine transportation, oil and gas development, protection of sensitive habitats, scientific research, sediment management, telecommunications, new fisheries, military activities, and recreation and tourism. (See page 50 for full text)

Goals and Objectives

Recommendation 2 – General principles

The recommended goals and objectives for marine spatial planning in Washington should reflect unique concerns for Washington and the requirements of the state law, integrate with existing policies and mandates for state agencies, and incorporate relevant and compatible national goals for coastal and marine spatial planning (CMSP). (See page 51 for full text)

Recommendation 3 – Goals

Adopt a suite of goals for marine spatial planning aimed at protecting, sustaining, and appropriately using the state's marine waters and resources through coordinated decision making in a proactive, comprehensive, and ecosystem-based manner. The specific goals to get there address sustainable economies, healthy ocean and coastal ecosystems, public access, improved decision-making, enhanced government coordination, and reducing user conflicts. (See page 51 for full text)

Recommendation 4 – Objectives

Establish a suite of objectives for marine spatial planning in Washington. These include recognizing and respecting tribal treaty rights; recognizing and valuing existing uses; promoting protection and restoration of biodiversity and ecosystem processes; addressing potential impacts of climate change; fostering and encouraging sustainable uses that provide economic opportunity and preserve coastal heritage; preserving and enhancing commercial and recreational uses of marine waters and shorelines; protecting and encouraging working waterfronts and water-dependent uses; fostering public participation in decision-making; integrating existing management plans and authorities; relying on best available science; improving scientific information about the marine ecosystem; and using a precautionary approach. (See page 52 for full text)

Ecosystem Indicators

Recommendation 5 – Establish committee to develop indicators

A coordinating body for Washington's coast should form a subcommittee involving tribal, federal, local and state policy leads to review existing indicator information on the status of the coastal and marine ecosystem and develop high-level ecosystem indicators for the health of Washington's coast. These indicators should cover ecological, social, and economic elements. (See page 53 for full text)

Spatial Data Needs

Recommendation 6 – Priority data needs

Collect priority spatial data to support marine spatial planning in Washington. Priority data include human uses: bathymetry-topography; fisheries; habitats; conservation/regulated areas; water quality; oceanographic processes; geomorphic characterization; threatened and endangered species; and ownership. (See page 54 for full text)

Data Management and Delivery

Recommendation 7 – Accessing data

The state should use marine spatial planning as a pilot for developing a single-point-of-access for Washington GIS data. The state should also pursue connections to regional GIS capacity and regional data portals, including tribal, federal, local, academic, and non-governmental sources, where appropriate. (See page 55 for full text)

Recommendation 8 – Data standards

Develop and use data standards for ensuring a unified approach to data use and management in planning and ensuring quality control by setting up and using a transparent, peer-review process involving technical and scientific experts. (See page 55 for full text)

Recommendation 9 – Data sharing

Evaluate the use of an exchange network or other similar tools for sharing and managing data for marine spatial planning. (See page 55 for full text)

Recommendation 10 – Decision tools

Evaluate existing state agency tools and regional data portals for managing and analyzing spatial data and evaluate whether the development of a decision-support tool is needed to support MSP. (See page 55 for full text)

MSP Framework: How do we get there?

Recommendation 11 – Plan elements

Under Washington's MSP law the comprehensive marine spatial plan must include use priorities and limitations for federal waters; an ecosystem assessment; a series of maps; an implementation strategy; and a framework for coordinating review of renewable ocean energy proposals. (See page 56 for full text)

Recommendation 12 – Public involvement

Use a range of mechanisms to foster public participation and involvement of coastal communities throughout the planning process. Marine Resource Committees can be a particularly useful mechanism for fostering local public involvement and participation during the planning process. (See page 56 for full text)

Recommendation 13 – Tribal consultation

Any marine spatial planning process needs to recognize treaty rights and foster a co-management relationship with the tribes regarding ocean and coastal resources. The four coastal treaty tribes (Makah Tribe, Hoh Tribe, Quileute Tribe, and Quinault Indian Nation) have jointly recommended a definition of government-to-government consultation and a generic approach to consulting with tribes throughout a marine spatial planning process. (See page 57 for full text)

Recommendation 14 – Technical and scientific expertise

Create a mechanism integrating scientific and technical expertise and advice into the MSP process. (See page 58 for full text)

Recommendation 15 – Develop geographic plans and assign lead agency

Develop marine spatial plans for three major geographic regions of the state: Puget Sound, the Columbia River, and the coast (see Recommendations 16, 17, and 18). Integrate with existing plans in Puget Sound and the Columbia River estuary. Establish a mechanism for coordinating these individual planning efforts to ensure statewide consistency and maximize leveraging of resources. Establish a lead agency to coordinate marine spatial planning activities statewide in consultation with a broader steering group. (See page 58 for full text)

Recommendation 16 – MSP in Puget Sound

The Puget Sound Partnership should include a marine spatial planning component in the Puget Sound Action Agenda. (See page 59 for full text)

Recommendation 17 – MSP in the Columbia River estuary

The Lower Columbia River Estuary Partnership (LCREP) should integrate marine spatial planning into the management efforts for the Columbia River estuary. (See page 59 for full text)

Recommendation 18 – MSP for Washington's coast

Develop a marine management plan with a marine spatial plan component for Washington's coast. Establish a coordinating body for the Washington Coast that would work collaboratively with all levels of government (state, tribal, federal, and local) to pursue marine spatial planning. Use a broad working group to develop, explore, and evaluate specific roles and membership for a coast coordinating body. Specific roles for the coordinating body and for the various groups in the MSP process for the coast could be established through a Memorandum of Agreement. (See page 59 for full text)

Recommendation 19 – Plan implementation

Develop geographically specific implementation strategies that rely on existing agency authorities. Design a process to foster interagency implementation of the plan.

Once the plan is completed, the marine spatial planning legislation requires the Department of Ecology, in coordination with an interagency team, to periodically review existing management plans maintained by state agencies and local governments to evaluate consistency with the marine spatial plan and make recommendations on how to eliminate the inconsistency.

Ecology is also required by the legislation to submit the completed marine spatial plan to the National Oceanic and Atmospheric Administration for its review and approval for incorporation into the states federally approved coastal zone management program. (See page 60 for full text)

Recommendation 20 – Federal integration

Coordinate with federal agencies on marine spatial plan development and implementation. Work with federal agencies during development of the state plan. Ensure that federal agencies consider state marine spatial plans when conducting activities that affect Washington's coastal resources. (See page 60 for full text)

Recommendation 21 – Regional coordination

Washington State should continue to collaborate and coordinate marine spatial planning efforts with the other state, federal, and international jurisdictions on the West Coast. A particular focus should be the West Coast Governors' Agreement on Ocean Health, or whatever entity is established to serve as the CMSP Regional Planning Body, as required in the new national CMSP Framework under Presidential Executive Order 13547. (See page 61 for full text)

Next Steps

Under Washington's marine spatial planning law, proceeding with additional planning activities is contingent upon securing federal or other non-state funds. The State Ocean Caucus recommends the following state actions to continue to prepare for marine spatial planning in Washington State. These actions are not in priority order and are dependent on available resources.

1. Identify and seek non-state funding for initiating MSP activities and/or planning processes, including workshops or meetings to establish organizational structures and coordinate next steps.
2. Pursue government-to-government consultation with tribes regarding MSP activities and structures.
3. Finalize spatial data inventory and seek non-state funding to fill priority spatial data needs and gaps as well as improve access to information that is already available.
4. Further evaluate options for improving data sharing and data management and seek non-state funding for projects to advance these activities.
5. Evaluate establishing partnerships with a wide range of public and private groups with expertise for advancing particular aspects of MSP.
6. Continue efforts to advance MSP for the state by coordinating with the West Coast Governors' Agreement and related efforts in British Columbia, Canada on regional MSP and, where possible, utilize opportunities to advance priority MSP needs for the state that would also benefit regional planning.

Chapter 1 – Introduction

Marine spatial planning (MSP) is a management tool that is increasingly being used around the country and world to coordinate decisions for coastal and ocean activities and environments in a comprehensive plan. MSP uses data on the location of important marine resources, human activities, and other key components to determine the most appropriate locations for particular uses. The planning process often displays and analyzes this information using maps and other tools to inform the development of the plan.

When well-supported and effectively implemented, MSP can reduce conflicts among uses, reduce environmental impacts, facilitate compatible uses, align management decisions, and meet other objectives determined by the planning process. Often, MSP focuses on emerging new uses, expanding existing uses or resolving conflicts among existing uses. MSP can address a variety of planning issues, but some common drivers for MSP in other parts of the country and world have been planning for renewable ocean energy, such as wave, tidal, and offshore wind, and conservation of sensitive marine habitats.

Over a year ago, President Obama formed a National Ocean Policy Task Force to develop a national ocean policy and a framework for coastal and marine spatial planning.[1] In July 2010, the President adopted the final recommendations of the Task Force through Executive Order 13547. In addition, the President's proposed Fiscal Year 2011 budget includes a funding request to support coastal and marine spatial planning.

Washington State's MSP definition

According to our state law, *marine spatial planning means a public process of analyzing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives.*

The federal framework for coastal and marine spatial planning sets forth general goals, planning principles, and a flexible process for establishing regional plans guided by national standards. Importantly, it also allows the incorporation and acknowledgement of marine spatial plans developed by states.

In March 2010, the Washington State Legislature enacted state marine spatial planning legislation, Substitute Senate Bill 6350 (SSB 6350), which was signed by Governor Gregoire. The new law directs state agencies to develop a legislative report with recommendations on conducting MSP in the state through an interagency team chaired by the Governor's office by December 15, 2010 (see page 10 for report requirements). This report was developed to fulfill that mandate. However, this report is not a marine spatial plan and is not intended to provide specific recommendations on the use of particular management measures, resolution for particular management issues. Maps of relevant data for doing marine spatial planning are not included in this report. These are all things that would be addressed and included in a planning process.

[1] Note: the federal framework uses the term coastal and marine spatial planning (CMSP) to emphasize the connection of this planning to the shoreline and coast. Based on the similarity of these definitions, the state interagency team interpreted the term CMSP and MSP as essentially interchangeable. For consistency, the report will utilize the term MSP, except when referring to requirements in the federal framework for CMSP.

Legislative Report Requirements

Substitute Senate Bill 6350 (Section 4)

1) The marine interagency team created in section 3 of this act must assess and recommend a framework for conducting marine spatial planning and integrating the planning into existing management plans. The assessment must include, but not be limited to, recommendations for:
   a) Including a marine spatial component into the Puget Sound action agenda;
   b) Integrating marine spatial planning into management efforts for the Columbia river estuary, working with the state of Oregon; and
   c) Developing a marine management plan containing a marine spatial component for the outer coast, to be incorporated within the comprehensive marine management plan authorized under section 6 of this act.
2) The assessment authorized under subsection (1) of this section must also:
   a) Summarize existing goals and objectives for: Plans in Puget Sound, the Columbia river estuary, and the outer coast, including the Puget Sound action agenda; shoreline plans for shorelines around the state; management plans for state-owned aquatic lands and their associated waters statewide; and watershed and salmon recovery management plans;
   b) Develop recommended goals and objectives for marine spatial planning that integrate with existing policies and regulations, and recommend a schedule to develop marine ecosystem health indicators, considering the views and recommendations of affected stakeholders and governmental agencies;
   c) Summarize how the existing goals and objectives as well as recommended goals and objectives are consistent or inconsistent with those adopted by other states for the west coast large marine ecosystem, and with those goals and objectives articulated in relevant national oceans policies and the national framework for marine spatial planning;
   d) Identify the existing management activities and spatial data related to these priorities and objectives and the key needs for incorporating marine spatial planning into existing statewide plans; and
   e) Provide recommendations on achieving a unified approach to database management and delivery that would support marine spatial planning throughout the state.
3) The results of this assessment must be provided to the appropriate legislative committees by December 15, 2010.
4) This section expires June 30, 2011.

Washington's state law also sets forth general principles, guidelines and key elements for developing a comprehensive marine spatial plan for all of Washington's marine waters, including recommending use priorities and limitations for adjacent federal waters.[2] Additionally,

[2] The legislation refers to the potential scope for state's recommendations on uses and limitations in federal waters as the exclusive economic zone, which covers from 3 nautical miles to 200 nautical miles offshore. The state's jurisdiction remains only over state waters, but the state should work with federal entities to discuss uses and management of activities in federal waters that could affect state waters and resources and would be compatible with the state's policies for use and management of its coastal and ocean resources. In addition, some areas within 3 nautical miles are under tribal or federal ownership, but are defined by the state law as areas included for planning.

the law directs agencies to conduct related activities such as developing guidance on siting for renewable energy, compiling marine spatial information, including marine spatial data into existing plans, and working with other jurisdictions in the broader region on joint plans for shared waters. However, the planning and other additional activities outlined by the law are only triggered if the state receives federal or non-state funding. Washington is committed to the health of our marine waters, working in coordination with federal, state and tribal governments, coastal communities and stakeholders, and this state law will help Washington identify and shape the use of marine spatial planning in a way that best works for Washington.

The concept of area-based planning to manage coastal and ocean resources and uses is not new. In Washington, a variety of local, state, tribal and federal agencies already do a lot to manage different aspects of marine uses and resources under a number of existing regulations and authorities. However, this primarily sector-based approach to management does not comprehensively address overall health of our resources and uses in a coordinated manner. MSP is a process to improve and align decisions for marine waters in a comprehensive plan with common goals and shared outcomes. The MSP process has a unique focus on gathering and analyzing a wide range of mapped information, also called spatial data, to guide decisions. As a result, marine spatial planning can and should integrate into and complement existing management, while improving information used for decision-making.

What areas will be covered by a Marine Spatial Plan?

The legislation indicates a marine spatial plan will cover aquatic lands and waters under tidal influence in Washington State.

This includes:

- Saltwater and estuaries from the ordinary high water mark out to 3 nautical miles.
- All major estuaries such as Puget Sound, Willapa Bay, and Grays Harbor.
- Lower Columbia River – only Wahkiakum and Pacific Counties are included.
- Privately-owned tidelands.

The marine spatial plan should also include the state's recommended use priorities and limitations for adjacent federal waters.

When developed, a marine spatial plan will guide decision-making at a broad, comprehensive scale both in terms of geographic scope as well as potential management outcomes. As described above, the benefit of a plan is setting a common vision and guidance for uses and resources with improved and coordinated information. The plan will not, in itself, institute new regulations.[3] Rather, a marine spatial plan can be implemented using existing regulations and authorities of agencies across local, state, tribal and federal jurisdictions. These existing regulations and processes will continue to guide decision-making on specific projects. As indicated above, securing federal or non-state funding is critical to launching marine spatial planning in Washington State.

Interagency team purpose and membership

The Washington State Legislature requested that an interagency team assess and recommend a framework for conducting marine spatial planning and integrating planning into existing

When initiated, the planning process will need to address these jurisdictional issues as it determines a more specific geographic scope.

[3] In Section 8, the legislation specifically indicates "No authority is created under this chapter to supersede the current authority of any state agency or local government."

management plans in a report due by December 15, 2010. Specifically, the legislative assessment was required to include:

- Recommendations for including a marine spatial component in the Puget Sound Action Agenda and integrating marine spatial planning into management efforts for the Columbia River estuary.
- Recommendations for developing a comprehensive plan, with a marine spatial component, for the coast.[4]
- A summary of existing goals and objectives and recommended goals and objectives that integrate with existing policies and regulations.
- A recommended schedule for developing marine ecosystem health indicators.
- A summary of the consistency of existing and recommended goals and objectives with those adopted by other west coast states and the national framework for marine spatial planning.
- A summary of existing management activities and spatial data and key needs for incorporating marine spatial planning into existing statewide plans.
- Recommendations on achieving a unified approach to database management and delivery to support marine spatial planning throughout the state.

Geographic Terms for the Report

Puget Sound – the marine waters covering from the entrance to the Strait of Juan de Fuca to all marine waters inland of that point.

Coast – the Pacific Ocean, marine waters and estuaries from Cape Flattery south to Cape Disappointment.

Columbia River – the marine waters and tidally-influenced portion of the Columbia River from the mouth of the river to the eastern boundary of Wahkiakum County.

The State Ocean Caucus is an existing state interagency team chaired by the Governor's office and coordinated by Washington Department of Ecology (Ecology). The State Ocean Caucus formed in 2007 to improve state coordination on coastal and ocean policy issues for the coast and to implement the recommendations in *Washington's Ocean Action Plan* (2006). Since no additional resources were provided to the state to conduct the marine spatial planning assessment and the State Ocean Caucus already maintained the appropriate state agency membership, the Governor's office chose to use this existing team, with some additions, to develop this report. The marine spatial planning legislation required the addition of a federal agency liaison to the interagency team and the team invited two federal agency representatives to serve in this capacity for the marine spatial planning assessment. In May, briefings about the state's marine spatial planning assessment were made to existing tribal policy groups such as the Olympic Coast Intergovernmental Policy Council and the Northwest Fisheries Commission's Environmental Policy Council and invited tribal participation. In June, the Governor's office also sent letters of invitation to participate in the marine spatial planning assessment to Puget Sound and coastal tribes. Table 1 lists the membership of the State Ocean Caucus, along with the additional federal and tribal participants.

[4] The legislation uses the term "outer coast", which is not defined in the legislation, but is interpreted in this report to mean the Washington coastline, estuaries, and marine waters along Pacific Ocean from Cape Flattery to Cape Disappointment. This report will utilize the term "coast" for this area.

Table 1 - State Ocean Caucus Representatives & Additional Participants

State	
Department of Agriculture	Mary Toohey
Department of Commerce	Lynn Longan
Department of Ecology	Brian Lynn/Jennifer Hennessey/Tom Clingman
Department of Fish and Wildlife	Michele Culver
Department of Health	Maryanne Guichard
Department of Natural Resources	Michal Rechner/Cyrilla Cook
Emergency Management Division	Maillian Uphaus
Governor's Office (Chair)	Bob Nichols
State Parks and Recreation	Randy Kline
Puget Sound Partnership	Martha Neuman/John Cambalik/Chris Townsend/David Jennings
Washington Sea Grant	Penny Dalton/Dave Fluharty (UW)
Local Marine Resource Committees (MRC)	
Grays Harbor County MRC	Robin Leraas
North Pacific MRC	Colby Brady/Rich Osborne/Tami Pokorny
Pacific County MRC	Dale Beasley/Mike Nordin
Federal liaisons	
NOAA Olympic Coast National Marine Sanctuary	Carol Bernthal/George Galasso/Nancy Wright
NOAA Office of Ocean and Coastal Resource Management	Kris Wall[5]
Tribal participants*	
Hoh Tribe	Dave Hudson/Joe Gilbertson
Makah Tribe	Micah McCarty/Jim Woods/Russ Svec/Fred Felleman
Quileute Tribe	Jennifer Hagen
Quinault Indian Nation	Joe Schumacker
Northwest Indian Fisheries Commission	Eric Wilkins

*Staff of the Northwest Indian Fisheries Commission (NWIFC) provided guidance and suggestions throughout this process, participating in meetings and reviewing documents where possible. The NWIFC did not participate as an official member of the State Ocean Caucus.

[5] Christina Cairns with NOAA Coastal Services Center acted as an alternate for Kris Wall.

Report Purpose and Audience

As required by the legislation, this report to the state legislature summarizes and assesses some basic and preliminary information and provides recommendations for how to advance marine spatial planning in Washington. This report is also directed to coastal and ocean resource managers in Washington and to other states or territories, tribal governments, other federal, state, and local governments considering marine spatial planning, as well as to interested organizations and members of the public.

This report provides recommendations about how to advance MSP in Washington. It is not, in itself, a marine spatial plan. In addition, this report does not set out the definitive path for any future marine spatial planning efforts. Many questions remain that can only be answered or set out during a thorough planning process. Although representatives from several agencies, governments, and organizations participated in the State Ocean Caucus, this report is not a statement of policy issued from those organizations. Finally, this report does not provide a comprehensive analysis on the use of or effectiveness of marine spatial planning efforts in other areas, nor does it provide a complete history on the use of related management tools in Washington.

Report Process

The State Ocean Caucus convened regularly to discuss the issues required in the legislative report. The following is a schedule and list of topics covered at these meetings:

April 27, 2010	Scope and task for MSP report, proposed timeline and process
May 14, 2010	Information needs for: management needs, goals & objectives, and ecosystem indicators discussion
May 25, 2010	Survey, inventory of existing goals & objectives, and communication materials
June 9, 2010	Information needs for: spatial data and database management discussion
June 30, 2010	Management needs, goals & objectives, and ecosystem indicators
July 27, 2010	Spatial data and database management
August 10, 2010	Framework for marine spatial planning
August 19, 2010	Framework for marine spatial planning Finalize draft report and recommendations
October 8, 2010	Review comments on draft report and revise report

Meeting summaries are available by contacting Jennifer Hennessey at jennifer.hennessey@ecy.wa.gov.

In addition to regular interagency meetings, other outreach was conducted to the public during the development of the MSP report. This included meetings and briefings to various groups about the report process including presentations at coastal Marine Resource Committee meetings, a public meeting on ocean issues in Westport, a meeting of the Olympic Coast Intergovernmental Policy Council, a meeting of the Puget Sound Federal Caucus, and a briefing to Northwest Indian Fisheries Commission's Environmental Policy Council by their staff.

In April, a website for marine spatial planning and the report process was also launched and is hosted on the Department of Ecology's website at:
http://www.ecy.wa.gov/programs/sea/msp/index.html

The State Ocean Caucus also solicited public input on key questions through an online survey and comments on draft goals & objectives in June. Appendix A contains a summary of the survey results. All additional comments received are also posted on the website. The draft report was made available for public comment from September 3 through October 5, 2010. Notification of these opportunities was sent to lists maintained by the State Ocean Caucus for the Ocean Policy Advisory Group and the WA-Ocean listserv, as well as forwarded by State Ocean Caucus members and others to related lists, including an article in Department of Natural Resources' "Ear to the Ground" online publication and twitter post to over 6,500 followers, a Puget Sound Partnership listserv announcement, an email list of shoreline planners maintained by Department of Ecology, the Olympic Coast Intergovernmental Policy Council, and the Olympic Coast National Marine Sanctuary's Advisory Council members.

After the close of the comment period on the draft report, all written comments received by the Department of Ecology during this period were all posted on the marine spatial planning website. In addition, several outside groups partnered to sponsor and host five public meetings about the draft report during the comment period. Upon the request of these groups, the State Ocean Caucus staff and representatives attended these meetings to present information on the draft report, answer questions about the report, and listen to public comments. These meetings were in:

- Seattle, September 20
- Friday Harbor, September 24
- Mount Vernon, September 27
- Tacoma, September 29
- Westport, September 30

Verbatim notes taken by student volunteers and facilitators from these meetings are also posted on the marine spatial planning website.

Appendix H contains a summary of some of the major, common themes from the comments received during the comment period and the State Ocean Caucus' response. This general summary does not attempt to address every individual comment recorded or revision made to the draft report.

The State Ocean Caucus also hosted a working session on spatial data[6] on July 13, 2010. The overall goal established for this meeting was to provide input to this report and the State Ocean Caucus' recommendations on spatial data. Two specific objectives of the meeting were to:

1. Understand key types of spatial data needed to support marine spatial planning in Washington, including addressing priorities for adjacent federal waters.

[6] Spatial data is a term meant to cover information that can be mapped out in multiple dimensions of space (2-D and 3-D). However, as used throughout this report the term "spatial data" will also be used cover information that can be mapped in the fourth dimension, time. Therefore, spatial data in this sense means information that can vary in both time and space. In many places, the report will also use the more generic term data.

2. Understand barriers and potential solutions to data accessibility and sharing to support MSP efforts in Washington.

Over 30 people from local, state, tribal and federal agencies, ocean user groups, non-governmental organizations, and academia attended this meeting. A more detailed summary of the findings and recommendations from this workshop is provided in Chapter 2 and Appendix E. A complete summary report from the event is also available on the marine spatial planning website.

Staff also consulted with state data managers to gather information on current activities and plans related to data management and delivery and to explore connections to marine spatial planning. Chapter 2 provides a more detailed summary of these activities and related findings.

Based on the spatial data needs identified through the working session, the State Ocean Caucus conducted an initial, rapid inventory of potential data holders for existing data that matched those types in the list. The inventory primarily sought data available across the state's marine waters or for large geographic sub-regions. This initial inventory is not yet complete and more work will need to be done to ensure that it is truly representative of available data. Furthermore, the initial inventory only gathered basic information about data types, but did not set any parameters on data quality or format.

Chapter 2 – Where are we now?

As mentioned earlier, MSP is a process used to develop a plan for a marine area. A detailed chart outlining the many steps in this process is provided in Appendix F. Some of the major parts of this process include:

- Defining the area to be managed
- Determining goals and objectives for a plan
- Gathering and mapping spatial data
- Analyzing the data, including assessing future scenarios
- Preparing a plan
- Implementing, monitoring and evaluating the plan

To provide recommendations on how the state might approach utilizing a marine spatial planning process and the necessary next steps, it is important to first understand where we are now. The interagency team was asked to summarize and assess preliminary information related to some of the initial, major MSP elements. Since Washington's marine spatial planning law requires federal or non-state resources for planning to be initiated, this report provides an important step in scoping out the resources required and recommended process for the state to effectively utilize this planning tool.

Here's how some of the elements assessed in this chapter relate to each other and to the MSP process:

- Understanding management activities allowed the group to consider what gaps exist in current management, what types of issues could be the driver or drivers of a planning process and what types of spatial data might be helpful for planning. Along with current goals and objectives, this information is useful for considering how to integrate marine spatial planning into existing plans and how the state should approach planning for various geographic regions.
- Goals and objectives help guide what a marine spatial plan will seek to accomplish at a high level. A goal is a broad statement of the end purpose for an activity, while an objective more specifically identifies how that goal can be achieved. Understanding the state's existing goals and objectives helps to identify similarities and differences in geography, mandates, and priorities as well as the potential compatibility of the goals and objectives for a marine spatial plan with existing authorities.
- Indicators provide a measure for monitoring progress toward the plan's goals and objectives, for monitoring overall ecosystem health and for identifying additional work that needs to be done as part of the planning process.
- Spatial data is a central part of doing MSP. As a result, it is essential to understand what types of data are needed and exist as well as how to manage and deliver the data. The goals and objectives as well as potential planning issues for MSP help identify the kinds of data that will be most essential for a planning process.

This chapter will summarize and analyze information on the status of the MSP-related elements required for the report by the state legislature including goals and objectives, management activities, ecosystem indicators, and spatial data and data management. In addition, it will

present key findings revealed in the State Ocean Caucus' analysis of this information. Chapter 3 contains the group's recommendations on these topics.

Management

Summary of current key management activities
The state's marine spatial planning law requires this assessment to identify the existing management activities and spatial data related to the state's priorities and objectives for a variety of existing marine plans and to identify the key needs for incorporating marine spatial planning into existing statewide plans.[7] This section will summarize management activities, while spatial data will be covered in a later section of this chapter.

State and local governments
Given the importance of coastal and ocean resources to Washington's culture, economy and quality of life, the state has developed a variety of management and planning tools to manage resources and activities in our marine waters. Over the years, the state legislature provided various agencies with the authority to manage a range of human activities, habitats, pollution, and living resources in our shorelines, aquatic lands, and open marine waters. These agency roles cover broader plans and programs developed for particular areas, resources, and uses, as well as specific project-level permitting, leasing or other authorizations required for proposed projects or uses. These agency-specific, current activities address the management of a wide range of human activities, uses, and natural resources in the marine environment such as:

- Aquaculture
- Biodiversity
- Climate Impacts
- Coastal Hazards
- Culturally Important Areas & Uses
- Discharge points/Pollution
- Fishing and Shellfishing: Commercial, Recreational
- Habitats and Habitat Forming Processes
- Military Activities
- Ports and Marinas
- Renewable Energy
- Research Infrastructure: moorings, cables, buoys, etc.
- Sediment (dredging, beneficial use)
- Shipping & Transportation, including navigation structures
- Telecommunication Infrastructure (subsea cables)
- Tourism & Recreation (non-consumptive)
- Upland activities-shore Infrastructure
- Views (Aesthetics)

The table below provides a general summary of the current management activities and roles of state agencies that apply to coastal and marine areas in Washington.

[7] SSB 6350 Section 4(2)(d).

Table 2 – Current state management activities

Agency	Major marine management activities	Primary role(s)
Archaeology & Historic Preservation	• Consultation and review of project effects on cultural resources • Statewide historic preservation plan • Historic site registers • Archaeological permitting • Certified local government program	Preservation of Washington's irreplaceable historic and cultural resources.
Commerce	• Growth management • Energy policy division • International trade and economic development	Grow and improve jobs in Washington State
Ecology	• Coastal zone management program and federal consistency certifications, including ocean resources management act • Coastal erosion monitoring • Floods and floodplain management • Marine monitoring program • Spill prevention, preparedness and response program • State environmental policy act (SEPA) • Shoreline management and shoreline master programs with local governments • Water quality certifications and discharge permits • Watershed planning	Protect, preserve and enhance Washington's environment, and promote the wise management of our air, land and water for the benefit of current and future generations.
Fish & Wildlife	• Fishing and shellfishing management – state and regional, co-management with tribes[8] • Hydraulic project approvals • State endangered & threatened species • Wildlife management • Consultation and review of project impacts on fish and wildlife.	Preserving, protecting and perpetuating the state's fish and wildlife resources: • Protect and enhance fish and wildlife and their habitats. • Provide sustainable, fish- and wildlife-related recreational and commercial opportunities.
Health	• Shellfish health program • BEACH program (w/ Ecology) • Wastewater management program • Fish consumption advisories	Improve the health of people in Washington State by ensuring fish and shellfish are safe to eat, beaches are safe for swimming, and on-site sewage and reclaimed

[8] Co-management by the state and tribes of the Dungeness crab fishery occurs out to 200 nautical miles.

Agency	Major marine management activities	Primary role(s)
	program	water systems are properly managed.
Natural Resources	• Leases and use authorizations for state-owned aquatic lands • Aquatic reserve program • Derelict vessel removal program • Dredged materials management program • Geology division maps hazards • Harbor line commission • Nearshore habitat program • Ports program • *Spartina* control • Wild stock geoduck fishery	Steward of state-owned aquatic lands on behalf of the public. Ensure productive, healthy, and sustainably managed lands.
Puget Sound Partnership	Action Agenda	Develops and oversees strategy for cleaning up, restoring, and protecting Puget Sound by 2020.
State Parks & Recreation Commission	• Operates and manages numerous underwater and coastal state parks, the Seashore Conservation Area (SCA), upland access sites, and water trail sites and associated marine and coastal infrastructure. • Resource stewardship program: park classification and management planning; resource inventory and assessment • Interpretive program • Boating program	Acquires, operates, enhances and protects a diverse system of recreational, cultural, historical and natural sites. The Commission fosters outdoor recreation and education statewide to provide enjoyment and enrichment for all and a valued legacy to future generations.
Recreation and Conservation Office	• Governor's Salmon Recovery Office • Salmon Recovery Funding Board • Forum on Monitoring Salmon Recovery and Watershed Health • Invasive Species Council • Habitat and Recreation Lands Coordinating Group • Recreation and Conservation Funding Board	Manages grant programs to create outdoor recreation opportunities, protect the best of the state's wildlife habitat and farmland, and help return salmon from near extinction.

As noted by some of the state programs listed in the table above, state and local entities also manage 115 marine protected areas in Washington's marine waters for a variety of purposes. These state and locally-managed areas account for over 331,000 acres of marine waters and over 3.7 million feet of shoreline.[9]

[9] Van Cleve, FB, G Bargmann, M Culver, and the MPA Work Group. Marine Protected Areas in Washington: Recommendations of the Marine Protected Areas Work Group to the Washington State Legislature. Washington Department of Fish and Wildlife, Olympia, WA. December 2009.

Some state and local entities play a non-regulatory role in coastal and ocean resource management, for example:

- Washington Sea Grant serves communities, industries and the people of Washington state, the Pacific Northwest and the nation through research, education and outreach by identifying and addressing important marine issues; providing better tools for management of the marine environment and use of its resources; and initiating and supporting strategic partnerships within the marine community. In particular, Washington Sea Grant sponsors scientific research, conducts outreach to local communities and user groups, and educates the workforce and public about marine resources.
- Marine Resource Committees (MRCs) are local, science-based citizen groups established by coastal counties. MRCs promote marine resource stewardship and restoration through a variety of locally-sponsored projects that often focus on activities such as research, education, and restoration. MRCs were originally established for the seven northern Puget Sound counties, which are guided by the Northwest Straits Commission. Since 1998, the Northwest Straits MRCs have received federal funding for their operation and administration. They also have obtained funding from a variety of other sources to support their projects. Over the past two years, coastal MRCs have been established by five of the counties on Washington's coast and are coordinated by local staff with support from state funding through grants administered by Washington Department of Fish and Wildlife.[10] The Coastal MRCs lack a structure similar to the commission established for the Northwest Straits.
- State Ocean Caucus is an interagency team chaired by the governor's office and comprised of representatives from state agencies and coastal MRCs. This team is responsible for implementing the recommendations of *Washington's Ocean Action Plan* to enhance management of Washington's coast and ocean resources.[11] The State Ocean Caucus conducts outreach to coastal communities and participates in a variety of other groups on the coast and in the region.
- The Lower Columbia Solutions Group is a bi-state partnership convened by the governors of Oregon and Washington as a forum for nearly 30 local, state and federal stakeholders to raise issues, collaborate on policy, and develop solutions for sediment management in the lower Columbia River. The LCSG serves as the key bi-state clearinghouse to coordinate policy, projects and research related to dredge material disposal and sediment management on the lower Columbia River. The LCSG's work integrates economic, social and environmental objectives.

As noted by the current management activities above, the concept of planning for our marine waters is not new. Despite these efforts, in many places, the stresses on marine ecosystems and resources have continued, as exhibited by declining populations of fish and marine wildlife, degraded water quality, and loss and alteration of habitats. To resolve these issues, ecosystem-based management is increasingly seen as a way to better consider the complex interactions of

[10] Jefferson and Clallam Counties operate as a joint MRC for their western coastal areas, the North Pacific MRC. Grays Harbor County and Pacific County both have their own MRCs operating. In September, Wahkiakum County Commissioners recently voted to form an MRC. For more information on MRCs, see: http://www.nwstraits.org/ and http://wdfw.wa.gov/about/volunteer/mrc/.

[11] The Office of the Governor. December 2006. *Washington's Ocean Action Plan: Enhancing Management of Washington State's Ocean and Outer Coasts. Volumes 1 and 2: Final Report of the Washington State Ocean Policy Work Group*. Olympia, Washington.

the whole system, including humans.[12] The recently established Puget Sound Partnership's Action Agenda to protect and restore Puget Sound by 2020 is a major example of an ecosystem-based management plan in place for Washington's marine waters.

While marine spatial planning is one of several existing management tools and processes that can be used to accomplish part or all of the goals of an ecosystem plan, it is unique in its focus on gathering and analyzing spatial information to determine appropriate locations for various activities.

Ecosystem-based management is an integrated approach to management that considers the entire ecosystem, including humans. The goal of ecosystem-based management is to maintain an ecosystem in a healthy, productive and resilient condition so that it can provide the services humans want and need. Ecosystem-based management differs from current approaches that usually focus on a single species, sector, activity or concern; it considers the cumulative impacts of different sectors.

McLeod, K. L., J. Lubchenco, S. R. Palumbi, and A. A. Rosenberg. 2005. COMPASS Scientific Consensus Statement on Marine Ecosystem-Based Management.

Tribal governments

Indian tribes rely on coastal and ocean resources for economic, subsistence and cultural purposes. In western Washington, twenty treaty tribes have co-management authority over the treaty-reserved fishery resources within their usual and accustomed fishing areas as well as the treaty right to hunt and gather roots and berries. Treaty tribes also have a management interest in the habitats required to sustain their treaty-reserved resources. In cooperation with Washington Department of Fish and Wildlife (WDFW), tribes manage tribal harvest activities, and WDFW, in cooperation with tribes, manages non-tribal harvest. Tribes also manage natural resources through a variety of other tribal programs and activities such as restoring populations, improving habitats, and conducting research and monitoring. Beyond natural resource management, tribes manage and track economic and social issues that will be important in creating a marine spatial plan. Additionally, many treaty tribes are currently working on their own plans and looking at how they will incorporate these plans with state, regional, and federal marine spatial plans.

Federally recognized tribes have a sovereign status and a unique relationship with all federal agencies. Additionally, the Centennial Accord sets forth a framework and principles for the government-to-government relationship between the state and the federally recognized tribes.[13]

Federal government

Federal agencies also conduct marine management activities within Washington's marine waters as well as in adjacent federal waters. The following highlights the some of the major federal agencies involved in marine activities in and adjacent to Washington and their primary roles.[14]

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[12] For more discussions and recommendations for Washington related to ecosystem-based management, see: 1) Puget Sound Partnership Recommendations. December 2006. *Sound Health, Sound Future: Protecting and Restoring Puget Sound;* and 2) The Office of the Governor. December 2006. *Washington's Ocean Action Plan: Enhancing Management of Washington State's Ocean and Outer Coasts. Volumes 1 and 2: Final Report of the Washington State Ocean Policy Work Group.* Olympia, Washington.

[13] The Centennial Accord was signed in 1989. For more information, see the Governor's Office of Indian Affairs website at: http://www.goia.wa.gov/

[14] Appendix D of the U.S. Commission on Ocean Policy final report (2004) provides more detailed summary of federal laws, programs, commissions and councils that oversee coastal and marine management issues. Additionally, Box 7.2 (page 113) of this same document provides a summary of the various ocean and coastal activities by federal agencies other than NOAA.

Department of Commerce

- National Oceanic and Atmospheric Administration - provide science, service and stewardship to understand and anticipate changes in climate, weather, oceans, and coasts; share that knowledge and information with others; and conserve and manage marine resources. Major areas of focus include: resilient coastal communities that can adapt to the impacts of hazards and climate change; comprehensive ocean and coastal planning and management; safe, efficient and environmentally sound marine transportation; improved coastal water quality supporting human health and coastal ecosystem services; climate change adaptation and mitigation, including improved scientific understanding, integrated assessments, mitigation and adaptation efforts, and supporting a climate-literate public; healthy oceans including improved understanding of ecosystems to inform resource management decisions, healthy habitats that sustain resilient and thriving marine resources and communities, and safe and sustainable seafood for healthy populations; and a weather-ready nation with reduced loss of life, property, and disruption from high-impact events, improved water resource management and water quality, and improved transportation efficiency and safety.[15]

Department of Defense

- U.S. Army Corps of Engineers - provide vital public engineering services in peace and war to strengthen our Nation's security, energize the economy, and reduce risks from disasters. Major regulatory activities in marine waters includes issuing permits related to discharge of dredged and fill material and for structures affecting navigable waters such as dams, dikes, and bridges. In addition, the agency maintains federal navigation routes, navigation structures, and flood protection facilities; operates hydropower facilities; and conducts coastal and environmental protection and restoration projects.
- U.S. Navy - maintain, train and equip combat-ready naval forces capable of winning wars, deterring aggression and maintaining freedom of the seas. The Navy conducts military training in and over marine waters in the U.S., operates and maintains military infrastructure in and adjacent to marine waters; conducts ocean scientific monitoring and research; and conducts military activities.

Department of Homeland Security

- U.S. Coast Guard – safeguard our Nation’s maritime interests in the heartland, in the ports, at sea, and around the globe. The Coast Guard is the primary enforcement agency for environmental and natural resource regulations in marine waters and regulates vessel and port safety, security and environmental protection. The agency also conducts a variety of military and security related activities in the marine environment.

Department of the Interior

- Bureau of Energy Management, Regulation, and Enforcement[16] - manage the nation's natural gas, oil and other mineral resources on the outer continental shelf (OCS). Major activities include issuing leases for ocean renewable energy, oil and gas, and other mineral resources.[17]

[15] NOAA Next Generation Strategic Plan (draft), June 2010.
[16] Agency formerly called Minerals Management Service (MMS).
[17] A Memorandum of Understanding between this agency and the Federal Energy Regulatory Commission (FERC) clarified the respective federal agency roles in licensing and leasing for renewable hydrokinetic technologies on the

- National Park Service - conserve the scenery and the natural and historic objects and the wild life and to provide for the enjoyment of the same and leave them unimpaired for future generations. Major activities include management of national parks as well as National Register of Historic Places, National Heritage Areas, National Wild and Scenic Rivers, National Historic Landmarks, and National Trails.
- U.S. Fish and Wildlife Service - conserve, protect and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. Major activities include endangered species consultations and plans, national wildlife refuges, migratory bird management, and habitat and species conservation and restoration.
- U.S. Geological Survey - provide reliable scientific information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life. Major activities include assessing biology, geology, geography and water resources and providing access to geospatial data and other scientific data and products.

Department of Transportation

- The Marine Administration - promote the use of waterborne transportation and its seamless integration with other segments of the transportation system, and the viability of the U.S. merchant marine. Major activities include ships and shipping, shipbuilding, port operations, vessel operations, national security, environment, and safety. The agency also provides support, education, and information for the merchant marine.

Environmental Protection Agency

- Protect human health and to safeguard the natural environment – air, water, and land – upon which life depends. Major activities include protecting ocean and coastal environments including estuaries, wetlands, and watersheds and developing and enforcing a variety of marine-related regulations for water pollution, ocean dumping, oil pollution and toxic substances. The agency also provides grants and conducts research and education on a variety of environmental issues.

Federal Energy Regulatory Commission

- Regulate the interstate transmission of natural gas, oil, and electricity. FERC also regulates natural gas and hydropower projects. Major activities include licensing hydropower and hydrokinetic projects and liquefied natural gas facilities.

Several federal agencies manage particular marine or coastal areas within Washington. The Olympic Coast National Marine Sanctuary is managed by the National Oceanic and Atmospheric Administration. It is located on the coast between Cape Flattery south to Copalis and covers from tidal and subtidal areas out to open ocean anywhere from 25 to 50 nautical miles offshore.[18] Throughout Washington's marine and coastal environments, several national wildlife refuges and refuge complexes are managed by U.S. Fish and Wildlife Service.[19] The National Park

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outer continental shelf. More information available at: http://www.boemre.gov/offshore/RenewableEnergy/index.htm and http://www.ferc.gov/legal/maj-ord-reg/mou/mou-doi.pdf

[18] The sanctuary is a managing agency, but does not own these lands or waters. Therefore, the state retains jurisdiction over these areas as well.

[19] These marine national wildlife refuges include: Copalis, Dungeness, Flattery Rocks, Grays Harbor, Nisqually, Protection Island, Quillayute Needles, San Juan Islands, and Willapa. Several refuges contain multiple, non-contiguous areas such as islands.

Service operates parks such as the Olympic National Park and the San Juan Island National Historical Park, which include marine or coastal environments. Together, these federally-managed marine areas in Washington cover over 312,000 acres and over 2,900,000 feet of shoreline.[20]

Key findings: Management Activities

There is inadequate comprehensive planning to address best locations for ocean and coastal uses proactively across the state, especially for emerging new uses, for expanding existing uses, or for resolving conflicts among existing issues. However, marine spatial planning provides the opportunity to address these issues within the context of sustainability of marine ecosystems. Renewable energy is explicitly a required planning element in the state law. However, other potential planning issues include, but are not limited to:

1. Aquaculture, shellfish
2. Aquaculture, offshore fish and other types such as net pens[21]
3. Bio-prospecting: gathering and use of marine life for research or medicinal purposes
4. Marine Transportation
5. Oil and gas, including pipelines and spill prevention and response
6. Protection, conservation, or restoration of sensitive environmental areas for habitats, plants or animals
7. Scientific research and equipment: buoys, cables, etc.
8. Sediment removal, placement or disposal such as from dredging activities
9. Telecommunication or power cables
10. Other, such as: underutilized & new fisheries or natural resources, military activities, recreation & tourism activities, siting for nuclear power activities, and climate change.

By providing a common vision and shared information, marine spatial planning can increase efficiency of decision-making across jurisdictions. It can improve the ability for agencies to comprehensively address marine management issues proactively and to consider impacts to the whole system, rather than deal with them at a project level in reaction to particular proposals. A marine spatial plan can also integrate with existing management activities and help fill gaps in management.

Sub-regional plans for Puget Sound and the Columbia River estuaries do not currently utilize marine spatial planning as a strategy or tool under these ecosystem-based plans.

Federal and state partners involved with marine spatial planning should carry out their tribal trust responsibilities by working cooperatively with tribal governments. Direct government-to-government consultation with individual tribes is an essential part of marine spatial planning and implementation of any plan. Marine spatial planning processes should foster this co-management relationship between tribes and state agencies.

Marine spatial planning processes should acknowledge the roles federal agencies have in managing marine resources within and adjacent to Washington's marine waters.

[20] Van Cleve, FB, G Bargmann, M Culver, and the MPA Work Group. Marine Protected Areas in Washington: Recommendations of the Marine Protected Areas Work Group to the Washington State Legislature. Washington Department of Fish and Wildlife, Olympia, WA. December 2009.

[21] This includes fish aquaculture in all marine waters as well as emerging aquaculture techniques utilizing deeper water technologies, rather than intertidal or subtidal shellfish aquaculture.

While there is inter-jurisdictional coordination through existing partnerships in the management of Puget Sound, the Columbia River, and the Olympic Coast National Marine Sanctuary, there is no comparable, single management structure that includes all levels of government and covers Washington's entire coast. Instead, several groups on the coast work to foster coordination on ocean and coastal policy issues including:

- State Ocean Caucus
- Coastal Marine Resource Committees
- Olympic Coast Intergovernmental Policy Council comprised of coastal tribes and the state to advise the federal government on management in waters of the Olympic Coast National Marine Sanctuary.

Unless addressed, the lack of a central, cross-jurisdictional coordination mechanism may hamper effective MSP work on the coast.

Goals and Objectives

Summary of goals and objectives for existing management plans
Substitute Senate Bill 6350 required a summary of existing goals and objectives for existing marine management plans in Puget Sound, the Columbia River estuary, and the outer coast.[22] Specifically, the legislation requires summaries of the following plans:

- Puget Sound Action Agenda
- Shoreline plans for shorelines around the state
- Land management plans for state owned aquatic lands and their associated waters statewide
- Watershed plans
- Salmon recovery plans

Given the relevant marine authorities of other state agencies including some that apply to particular regions of the state, the State Ocean Caucus chose to also summarize goals and objectives for several other related marine authorities. This list primarily covers planning and management authorities that result in either a comprehensive, statewide approach or geographically-based plans or management for marine areas and activities in Washington.

The goals and objectives summary and analysis did not attempt to cover every single permitting authority that entities maintain over individual projects.[23] It also did not cover any state requirements or processes used under existing planning authorities and activities. However, Substitute Senate Bill 6350 contains several objectives, or planning principles, that cover the planning process. The recommended framework provided later in Chapter 3 addresses some of these process-oriented elements for how to conduct marine spatial planning such as consulting with tribes and involving the public.

The additional mandates, policies and management plans included in the summary and analysis of existing state goals and objectives were:

- Lower Columbia River Estuary Partnership: estuary management plan

[22] See Substitute Senate Bill 6350, Section 4(2)(a).
[23] For example, Hydraulic Project Approvals (WDFW) and water quality permitting (Ecology) are not covered in the summary or analysis.

- Washington Department of Ecology: ocean resources management act and geographic response plans.
- Washington Department of Fish and Wildlife: legislative mandate, mission, and goals; marine protected area policy; and role in Magnuson-Stevens Fishery Conservation and Management Act.
- Washington Department of Natural Resources aquatic land statutes, strategic plan, aquatic reserves program, harbor area management, and mystery bay management plan.
- State Parks and Recreation Commission: park plans and seashore conservation act.

Appendix B contains the compiled summary of the existing goals and objectives for the included state authorities. Lead agencies utilized a common format for completing the summary of each planning or management authority.

As mentioned earlier, the State Ocean Caucus was established to implement the recommendations of *Washington's Ocean Action Plan* for Washington's coast. This document outlines the following broad goals for improving management of these ocean and coastal resources:

1. Manage the state's ocean and coastal areas to protect valuable marine resources and maintain ecosystem health while ensuring the vitality of coastal communities, through: effective, sustainable, fisheries management; development of a state marine aquaculture policy; use of ecosystem-based management; and investigation of developing renewable ocean energy technologies.
2. Protect the coastal environment and its communities from threats of marine hazards, such as storm surge and tsunamis, the effects of global climate change, and increased erosion, through improved research and management and increased planning efforts. Through state work, ensure continued coordination to prevent and manage pollution and marine debris.
3. Enhance the sustainability and resiliency of outer coast communities through appropriate economic development practices that honor the historical practices of the past, maintain present successes, and plan for future uses to maximize benefits to the state's residents.
4. Increase state attention on ocean-related scientific research and observation practices that satisfy coastal management needs while furthering integrated and coordinated scientific knowledge of the state's marine environment.
5. Inform all state citizens of the vital importance of the state's ocean resources by collaborating on ocean literacy programs in state K-12 education and expanding public outreach on ocean issues.
6. Create a state interagency team on ocean policy to coordinate state policy and consult and collaborate with tribes, local government, ports, and interested citizens.

Federal management plans

The previous section on management activities highlights some of the important roles that the federal government plays in managing ocean and coastal resources. Just as with state agencies, each federal agency maintains a unique role as well as goals and objectives in managing the areas under their responsibility and their individual, existing management plans vary accordingly. On July 19th, the Obama Administration adopted a national ocean policy to coordinate and guide the work of all federal agencies. This overarching policy applies to more than just MSP activities.

National Policy for the Stewardship of the Ocean, Our Coasts, and the Great Lakes

It is the policy of the United States to:[24]

- Protect, maintain, and restore the health and biological diversity of ocean, coastal, and Great Lakes ecosystems and resources;
- Improve the resiliency of ocean, coastal, and Great Lakes ecosystems, communities, and economies;
- Bolster the conservation and sustainable uses of land in ways that will improve the health of ocean, coastal, and Great Lakes ecosystems;
- Use the best available science and knowledge to inform decisions affecting the ocean, our coasts, and the Great Lakes, and enhance humanity's capacity to understand, respond, and adapt to a changing global environment;
- Support sustainable, safe, secure, and productive access to, and uses of the ocean, our coasts, and the Great Lakes;
- Respect and preserve our Nation's maritime heritage, including our social, cultural, recreational, and historical values;
- Exercise rights and jurisdiction and perform duties in accordance with applicable international law, including respect for and preservation of navigational rights and freedoms, which are essential for the global economy and international peace and security;
- Increase scientific understanding of ocean, coastal, and Great Lakes ecosystems as part of the global interconnected systems of air, land, ice, and water, including their relationships to humans and their activities;
- Improve our understanding and awareness of changing environmental conditions, trends, and their causes, and of human activities taking place in ocean, coastal, and Great Lakes waters; and
- Foster a public understanding of the value of the ocean, our coasts, and the Great Lakes to build a foundation for improved stewardship.

Comparison of current state goals and objectives

Many different state authorities and regulations apply to areas throughout Washington's marine waters or adjacent watersheds, while others have a limited geographic scope such as the Columbia River, Puget Sound or Coast. The following table shows the geographic scope of the various state authorities compared.

[24] The White House Council on Environmental Quality. *Final Recommendations of the Interagency Ocean Policy Task Force.* Washington, D.C. July 19, 2010.

Table 3 - Geographic scope of authorities[25]

Agency	Geographic scope			
	Statewide – all marine waters	**Puget Sound**	**Coast**	**Columbia River**
Ecology	• Shoreline Management Act • Watershed Planning Act • Geographic Response Plans (spills)		• Ocean Resources Management Act	
Fish and Wildlife	• Agency legislative mandate, mission, & goals • Marine Protected Areas		• Magnuson-Stevens Act (PFMC/ WDFW/ NOAA)	
Lower Columbia River Estuary Partnership				• Estuary Management Plan (EPA)
Natural Resources	• Aquatic Land statutes • Strategic Plan • Aquatic Reserves Program and Rules • Harbor Areas Management •	• Mystery Bay Management Plan		
Puget Sound Partnership[26]		• Action Agenda (EPA)		
Recreation and Conservation Office	• Salmon recovery plans[27] (Endangered Species Act)			
State Parks	• Classification and Management Planning (CAMP) and State Park Master Facility Plans		• Seashore Conservation Act	

Common themes

Several common themes emerged from analyzing the various existing state goals and objectives. These common themes are applicable through multiple mandates that apply to managing and planning for marine resources across Washington's state waters and are also reinforced through area-specific planning authorities such as estuary plans. In addition, these common themes align closely with the objectives and principles listed in the state's marine spatial planning law (SSB

[25] As discussed above, this summary table only includes the authorities required and considered for this summary and analysis. It does not include every state authority that may impact or regulate activities in marine waters. The estuary plans noted for the Lower Columbia River and Puget Sound are developed under the National Estuary Program authorized by the Clean Water Act and approved by the Environmental Protection Agency (EPA). See Appendix B for more details on these authorities and plans.

[26] Puget Sound Partnership is also the regional organization for implementing the Puget Sound salmon recovery plan.

[27] These plans are approved by NOAA National Marine Fisheries Service and are implemented by eight regional organizations. For more information, see Appendix B and http://wwwtest2.rco.wa.gov/salmon_recovery/index.shtml.

6350). Table 4, below, provides a summary and description of the common themes, their applicable planning authorities, and how they align with mandates in the marine spatial planning law.

Table 4 – Common existing state goals & objectives themes

Theme	Description	Applicable planning authorities	Alignment with SSB 6350[28]
SUPPORT WATER-DEPENDENT USES, DEVELOPMENT, COMMERCE AND NAVIGATION	Accommodate preferred shoreline uses and developments, particularly for water-dependent and water-oriented uses.	• Shoreline Management Act (Ecology) • Aquatic Land Statutes (DNR) • Harbor Area Management (DNR) • Agency legislative mandate, mission, goals (WDFW) – specifically for ensuring sustainable fish and wildlife opportunities for social and economic benefit.	• Protects and encourages working waterfronts and supports the infrastructure necessary to sustain marine industry, commercial shipping, shellfish aquaculture, and other water-dependent uses – Sect. 6(2)(f) • Fosters and encourages sustainable uses that provide economic opportunity without significant adverse environmental impacts -- Sect. 6(2)(d) • Recognize that commercial, tribal and recreational fisheries, and shellfish aquaculture are an integral part of our state's culture and contribute substantial economic benefits – Sect. 1(2)(i)
PROTECT ENVIRONMENTAL RESOURCES AND ECOSYSTEM FUNCTIONS	Protect and preserve aquatic habitats, shoreline natural resources, marine life and associated ecosystem functions.	• Marine Protected Areas (WDFW) • Agency legislative mandate, mission, goals (WDFW) • Aquatic Reserves	• Promotes protection and restoration of ecosystem processes to a level that will

[28] Section references are provided as citations for the specific legislative language.

Theme	Description	Applicable planning authorities	Alignment with SSB 6350[28]
		Program (DNR) • Aquatic Lands Statutes (DNR) • Shoreline Management Act (Ecology) • Puget Sound Action Agenda (PSP) • Lower Columbia River - Comprehensive Conservation and Management Plan (LCREP)	enable long-term sustainable production of ecosystem goods and services – Sect. 6 (2)(b) • Value biodiversity and ecosystem health, and protect special, sensitive, or unique estuarine and marine life and habitats, including important spawning, rearing, and migration areas for finfish, marine mammals, and productive shellfish habitats – Sect. 1(3)(l)
PROTECT PUBLIC ACCESS	Protect and enhance recreational opportunities, public rights of navigation and public access to publicly owned areas.	• Aquatic Land Statutes (DNR) • Shoreline Management Act (Ecology) • Classification and Management Planning and Master Facility Plans (Parks) • Seashore Conservation Act (Parks)	• Preserves and enhances public access – Sect. 6(2)(e)
RECOVER IMPERILED SPECIES	Achieve healthy populations of listed endangered species. Recover salmon to healthy, harvestable populations and improve the habitats upon which they rely.	• Agency legislative mandate/mission/goals (WDFW) • Salmon Recovery Plans (RCO, regional organizations)) • Action Agenda (PSP)	• Promotes protection and restoration of ecosystem processes to a level that will enable long-term sustainable production of

Theme	Description	Applicable planning authorities	Alignment with SSB 6350[28]
		• Watershed Planning Act (Ecology). Note only some of these address recovery plans.	ecosystem goods and services – Sect. 6 (2)(b) • Promote recovery of listed species under state and federal endangered species acts plans – Sect. 1(3)(m)
RESTORE HABITAT	Restore degraded shoreline or marine habitats.	• Shoreline Management Act (Ecology) • Puget Sound Action Agenda (PSP) • Salmon Recovery Plans (RCO, regional organizations) • Lower Columbia River - Comprehensive Conservation and Management Plan (LCREP) • Agency legislative mandate/mission/goals (WDFW) • Aquatic Reserves Program (DNR)	• Promotes protection and restoration of ecosystem processes to a level that will enable long-term sustainable production of ecosystem goods and services – Sect. 6 (2)(b) • Value biodiversity and ecosystem health, and protect special, sensitive, or unique estuarine and marine life and habitats, including important spawning, rearing, and migration areas for finfish, marine mammals, and productive shellfish habitats – Sect. 1(3)(l)
PROHIBIT OIL AND GAS EXPLORATION, DEVELOPMENT OR PRODUCTION	See left. Activity prohibited in state marine waters.	• Shoreline Management Act (Ecology) • Ocean Resources Management Act (Ecology)	• Not applicable

Distinct themes

In analyzing the goals and objectives, a few distinct themes emerged from existing authorities that are addressed differently by various geographic areas. In Puget Sound and the Columbia River, reducing water pollution, including toxics, nutrients and pathogens is a major focus of the estuary management plans adopted under the National Estuary Program for these two areas. On the coast, there are unique goals and objectives for managing ocean uses and activities under the state Ocean Resources Management Act as well as for regional fishery conservation and management under the federal Magnuson-Stevens Fishery Conservation and Management Act.

There were also distinct issues addressed by the goals and objectives for single plans or individual authorities, but that apply to all of the state's marine waters. These specific issues may have connections to other state goals and objectives under the broader, common themes noted above. However, these distinct issues are not specifically called out in the summaries for those other state planning authorities. The unique, specific issues for individual plans included:

- MINIMIZE IMPACT OF OIL SPILLS - Identify natural, cultural, and economic resources at risk and develop strategies to safeguard them in the event of an oil spill. This specific issue is address through the Geographic Response Plans developed by Ecology under the Northwest Area Contingency Plan.

- USE RENEWABLE RESOURCES - Develop renewable energy resources on state lands, address the challenges of climate change, and create renewable energy jobs. This specific issue is part of the aquatic land statutes and agency strategic plan for the Department of Natural Resources.

- IMPROVE MANAGEMENT OF WATER RESOURCES IN WATERSHEDS - Use local, watershed plans to protect existing water rights; maintain or augment instream flows; enhance, protect or restore fish habitat for state, regional and local fish recovery plans; or guide basin development, uses and priorities for water. This issue is a goal of the watershed planning act implemented by the Department of Ecology and local watershed planning groups.

Summary of regional and national MSP goals and objectives

The legislation requires this report to summarize how existing goals and objectives as well as recommended goals and objectives are consistent or inconsistent with those adopted by other states for the West Coast large marine ecosystem as well as those adopted at the national level for marine spatial planning.[29] In order to do this, it is first helpful to summarize these existing regional and national goals and objectives. The following section highlights these relevant regional and national goals and objectives, including marine spatial planning activities underway in California and Oregon.

Regional goals and objectives

West Coast Governors' Agreement on Ocean Health

Initially launched in 2006 by the governors of Oregon, Washington, and California, the West Coast Governors' Agreement on Ocean Health is a regional ocean partnership designed to address critical, shared ocean and coastal protection and management issues facing the West Coast. A co-lead from each of the states and three federal agencies comprises the executive

[29] SSB 6350 Section 4(2)(c).

committee for this regional ocean partnership. Governor's office staff represents Washington on the executive committee.

The action plan West Coast Governors' Agreement addresses key regional activities under the following priority areas of focus:[30]

- Ensuring clean coastal waters and beaches.
- Protecting and restoring healthy ocean and coastal habitats.
- Promoting the effective implementation of ecosystem-based management of our ocean and coastal resources.
- Reducing adverse impacts of offshore development.
- Increasing ocean awareness and literacy among our citizens.
- Expanding ocean and coastal scientific information, research, and monitoring.
- Fostering sustainable economic development throughout our diverse coastal communities.

In addition, the governors called for two overarching actions that cut across these priority areas: preparing for the effects of climate change and calling for the creation of a national ocean trust fund. Regional teams were subsequently formed to develop more specific work plans for some of the actions. These work plans were finalized in May 2010 and cover the following issues: marine debris, climate change, renewable ocean energy, *Spartina* eradication, seafloor mapping, sediment management, polluted runoff, and ocean literacy. The work plans for integrated ecosystem assessments and sustainable communities are still under development.

The West Coast Governors' Agreement on Ocean Health does not currently have specific adopted goals or objectives that address marine spatial planning. However, they have expressed interest in pursuing regional marine spatial planning because it would align with many of their existing current priorities and activities for the West Coast. This group is currently exploring next steps for advancing on regional marine spatial planning, including how to address requirements set forth by the new national CMSP framework and how to build off of their existing work and priorities for the region.

California

Marine Spatial Planning

California does not currently have a law that calls specifically for marine spatial planning in the state, but it does have an effort underway that utilizes a marine spatial planning process. The Marine Life Protection Act required the state to evaluate and possibly redesign all existing state marine protected areas and to consider new areas that could, to the greatest degree possible, act as a networked system. This planning process seeks to establish a network of Marine Protected Areas for California's entire coast by major coastal regions.

Plans for two of the five regions have now been adopted by the California Fish and Game Commission, and another is due for adoption in late 2010.

The California State Assembly also recently passed Assembly Bill 2125 (Ruskin) to improve the interagency coordination and sharing of geospatial data integral to marine

[30] The Office of the Governors: Washington, Oregon and California. May 2008. *West Coast Governors' Agreement on Ocean Health: Action Plan.* Available at: http://www.westcoastoceans.gov.

resource management and decision-making, including marine spatial planning efforts in the state.

California Ocean Protection Act and Ocean Protection Council
While California has many agencies with individual roles related to ocean and coastal management, the California Ocean Protection Act (COPA) established the California Ocean Protection Council to improve coordination of these state activities. The Ocean Protection Council's mission is to ensure that California maintains healthy, resilient, and productive ocean and coastal ecosystems for the benefit of current and future generations.[31]

The council was established to coordinate activities of state agencies to better protect ocean and coastal resources; to create policies to coordinate collection and sharing of scientific data; to identify and recommend changes in state law and policy needed to achieve the goals of COPA; and to recommend state actions that encourage needed changes in federal law and policy.[32]

The Ocean Protection Council's guiding principles are:

- Recognizing the interconnectedness of the land and the sea, supporting sustainable uses of the coast, and ensuring the health of ecosystems
- Improving the protection, conservation, restoration, and management of coastal and ocean ecosystems through enhanced scientific understanding, including monitoring and data gathering
- Recognizing the "precautionary principle": where the possibility of serious harm exists, lack of scientific certainty should not preclude action to prevent the harm
- Identifying the most effective and efficient use of public funds
- Making aesthetic, educational, and recreational uses of the coast and ocean a priority
- Involving the public in all aspects of the process

Under its 5-year strategic plan, the Ocean Protection Council's priority goals are:

- Enhance the capacity and performance of agency programs to meet the goals of the California Ocean Protection Act. Focus on ecosystem-based management.
- Improve understanding of ocean and coastal ecosystems. Focus on scientific understanding to support ecosystem-based management and accessible, consistent monitoring data.
- Significantly improve ocean and coastal water quality. Focus on reducing beach closures and marine debris.
- Significantly improve the quantity and quality of ocean and coastal habitat in California.
- Significantly increase healthy ocean and coastal wildlife populations and communities in California. Focus on reducing over-exploitation of species.
- Promote ocean and coastal awareness and stewardship. Focus on individual awareness of impacts and conservation principles.

[31] More information available at: http://www.opc.ca.gov/
[32] The California Ocean Protection Council. 2006. *A Vision for Our Ocean and Coast: five-year strategic plan.* Sacramento, CA.

Oregon

Marine Spatial Planning

Oregon does not have law mandating marine spatial planning. However, Oregon's has two efforts underway that utilize marine spatial planning-type processes; one focuses on marine renewable energy, the other on establishing marine reserves. These were both launched in 2008 by Governor Kulongoski through an executive order.

For renewable ocean energy development, the Governor ordered the Oregon Department of Land Conservation and Development (DLCD) to work with stakeholders and scientists to prepare a plan. The initial phase involved the Oregon Land Conservation and Development Commission adopting a new chapter for Oregon's Territorial Sea Plan in 2009 that contains policies, review and evaluation standards, a coordination process, and operational plan requirements for ocean renewable energy developments. The second phase of the process is to conduct a spatial analysis of ocean uses and ecological resources to identify and allocate areas within the territorial sea that are appropriate for renewable energy development. This phase is being implemented and is scheduled for completion in mid-2011.

For marine reserves, the Ocean Policy Advisory Council established a process to consider establishment of marine reserves in state waters and provide recommendations back to the governor. The Oregon Legislature subsequently codified these recommendations and provided Oregon Department of Fish and Wildlife with the authority to proceed with the establishment of two pilot reserves and to further examine proposals for four other sites.[33]

Ocean Policy Advisory Council

Oregon's Ocean Policy Advisory Council is a legislatively mandated marine policy advisory body to the Governor of Oregon. This group is responsible for advancing the ocean resource policies of the state[34]; providing a forum for discussing ocean resource policy, planning and management issues; recommending amendments to the Oregon Ocean Resources Management Plan and Territorial Sea Plan; providing advice to governor, state agencies and local governments on ocean resource management issues; and encouraging participation of federal agencies.

The specific state policies adopted for Oregon's ocean resources are to:

- Conserve the long-term values, benefits and natural resources of the ocean both within the state and beyond by giving clear priority to the proper management and protection of renewable resources over nonrenewable resources.
- Encourage ocean resources development which is environmentally sound and economically beneficial to adjacent local governments and to the state.
- Assert the interests of this state as a partner with federal agencies in the sound management of the ocean resources within the United States Exclusive Economic Zone and on the continental shelf.
- Encourage research, study and understanding of ocean processes, marine life and other ocean resources.

[33] More information on this process available at: http://www.oregonocean.info/

[34] Specifically, OPAC is responsible for the policies contained in Oregon Revised Statute 196.420.

- Encourage research and development of new, innovative marine technologies to study and utilize ocean resources.
- Ensure that the Ocean Policy Advisory Council will work closely with coastal local governments to incorporate in its activities coastal local government and resident concerns, coastal economic sustainability and expertise of coastal residents.

National goals and objectives

When the Obama Administration recently adopted the national ocean policy to coordinate and guide the work of all federal agencies, the President also adopted a framework for coastal and marine spatial planning (CMSP). This national framework included the following national goals and guiding principles.

The National Goals of Coastal and Marine Spatial Planning[35]

1. Support sustainable, safe, secure, efficient, and productive uses of the ocean, our coasts, and the Great Lakes, including those that contribute to the economy, commerce, recreation, conservation, homeland and national security, human health, safety, and welfare;
2. Protect, maintain, and restore the Nation's ocean, coastal, and Great Lakes resources and ensure resilient ecosystems and their ability to provide sustained delivery of ecosystem services;
3. Provide for and maintain public access to the ocean, coasts, and Great Lakes;
4. Promote compatibility among uses and reduce user conflicts and environmental impacts;
5. Improve the rigor, coherence, and consistency of decision-making and regulatory processes;
6. Increase certainty and predictability in planning for and implementing new investments for ocean, coastal, and Great Lakes uses; and
7. Enhance interagency, intergovernmental, and international communication and collaboration.

The National Guiding Principles for Coastal and Marine Spatial Planning

In order to achieve the national goals of CMSP, planning efforts are to be guided by the following principles:

1. CMSP would use an ecosystem-based management approach that addresses cumulative effects to ensure the protection, integrity, maintenance, resilience, and restoration of ocean, coastal, and Great Lakes ecosystems, while promoting multiple sustainable uses.
2. Multiple existing uses (e.g., commercial fishing, recreational fishing and boating, subsistence uses, marine transportation, sand and gravel mining, and oil and gas operations) and emerging uses (e.g., off-shore renewable energy and aquaculture) would be managed in a manner that reduces conflict, enhances compatibility among uses and with sustained ecosystem functions and services, provides for public access, and increases certainty and predictability for economic investments.
3. CMSP development and implementation would ensure frequent and transparent broad-based, inclusive engagement of partners, the public, and stakeholders, including with those most impacted (or potentially impacted) by the planning process and with underserved communities.

[35] The White House Council on Environmental Quality, July 2010.

4. CMSP would take into account and build upon the existing marine spatial planning efforts at the regional, State, tribal, and local level.
5. CMS Plans and the standards and methods used to evaluate alternatives, tradeoffs, cumulative effects, and sustainable uses in the planning process would be based on clearly stated objectives.
6. Development, implementation, and evaluation of CMS Plans would be informed by sound science and the best available information, including the natural and social sciences, and relevant local and traditional knowledge.
7. CMSP would be guided by the precautionary approach as reflected in Principle 15 of the Rio Declaration, "Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."
8. CMSP would be adaptive and flexible to accommodate changing environmental conditions and impacts, including those associated with global climate change, sea-level rise, and ocean acidification; and new and emerging uses, advances in science and technology, and policy changes.
9. CMSP objectives and progress toward those objectives would be evaluated in a regular and systematic manner, with public input, and adapted to ensure that the desired environmental, economic, and societal outcomes are achieved.
10. The development of CMS Plans would be coordinated and compatible with homeland and national security interests, energy needs, foreign policy interests, emergency response and preparedness plans and frameworks, and other national strategies, including the flexibility to meet current and future needs.
11. CMS Plans would be implemented in accordance with customary international law, including as reflected in the Law of the Sea Convention, and with treaties and other international agreements to which the U.S. is a party.
12. CMS Plans would be implemented in accordance with applicable Federal and State laws, regulations, and Executive Orders.

Key findings: Goals and Objectives

The state's existing goals and objectives are largely compatible with each other based on major, common themes, such as:

- Support water-dependent uses, development, commerce, and navigation
- Protect environmental resources and ecosystem functions
- Protect public access
- Recover imperiled species
- Restore habitat
- Prohibit oil and gas exploration, development or production

Existing state goals and objectives are compatible with the goals and objectives articulated in Washington's marine spatial planning law.

Some of Washington's plans and authorities and, therefore, their goals and objectives, have distinct geographic regions or issues to which they apply. For example, the following plans do not have a statewide scope: Puget Sound Action Agenda, Lower Columbia River Estuary Management Plan, Seashore Conservation Act, Magnuson-Stevens Act, and Ocean Resources Management Act.

Existing goals and priorities of other West Coast states and for the region are compatible with Washington's existing goals and priorities, particularly around the broad themes of sustainable coastal communities and uses; and ensuring the health of coastal and ocean ecosystems. In addition, the three states and region also have shared goals and priorities around more specific policy issues as well as on enhancing scientific research, education, and coordination with other jurisdictions to support improved coastal and ocean management.

The national goals for MSP are largely compatible with current state goals and objectives for managing ocean and coastal resources, particularly with a focus on supporting sustainable uses; protecting, maintaining, and restoring ecosystems; and providing for public access. However, current state goals and objectives and Washington's marine spatial planning law do not include the following national MSP goals:

- reducing conflicts and promoting compatibility
- increasing predictability for planning for new investments
- improving consistency of decision-making

None of these additional goals for the national CMSP are incompatible with current state management.

Aligning Washington's MSP goals and objectives with those adopted for the national CMSP framework to the extent practicable would provide more specificity to guide planning and assist with advancing MSP in the state and region, including helping secure federal resources and assistance for MSP. However, Washington's MSP goals and objectives should also address Washington-specific needs and conditions as much as possible.

The national CMSP framework has adopted planning principles that are largely consistent with Washington's state law. However, the state law does not specifically identify use of the precautionary approach, which is included in the national planning principles.

Ecosystem Indicators

The marine spatial planning law required the state interagency team through this report to recommend a schedule for developing marine ecosystem health indicators.[36] However, estuary planning efforts underway in Puget Sound and the Columbia River have already adopted such indicators. As a result, this section summarizes the role indicators play in ecosystem-based management and marine spatial planning. It also highlights where these indicators have currently been adopted and briefly summarizes the processes used to establish indicators for Puget Sound and the Columbia River. A recommended process and schedule for ecosystem indicators for Washington's coast is included in Chapter 3: Recommendations.

Summary of existing indicators

The first task of an ecosystem-based management plan is to clearly articulate a comprehensive vision for a marine area. In general, the vision for a marine area usually identifies broad goals for environmental, economic and social values and uses. To utilize a marine spatial planning process as one tool for ecosystem-based management, additional goals should also be established such as those covering existing and potential new uses, as well as conservation values.

[36] SSB 6350 Section 4(2)(b).

Once a comprehensive vision is established for the area, the MSP process requires establishing indicators along with developing the spatial component of the plan. Ecosystem indicators measure the current state of the ecosystem and measure positive or negative trends over time. Indicator information provides the most value when specific, numeric targets are established as these provide a context to evaluate whether management activities are having their intended effect. Indicators can also more specifically measure the ability of a plan to achieve its intended outcomes. For example, if an MSP process is designed to reduce conflicts among uses one indicator might be to measure whether use conflicts are lower. A fully developed system of indicators and targets works only with a monitoring program that collects the data related to the indicators, that reports it regularly, and when adaptive management actions are taken based on the information received.

The Puget Sound Partnership (PSP) utilized an extensive process to establish twenty indicators to measure the environmental, economic and social health of Puget Sound as part of its ecosystem-based plan, the Action Agenda. These are listed in Appendix C. PSP formed a group of scientists and community leaders, called the Indicators Action Team, to develop its ecosystem indicators dashboard. The goal of the team's effort was to select indicators that were both "ecologically important and socially resonant." The team met weekly for three months to develop its proposed suite of dashboard indicators which were then approved by the Puget Sound Leadership Council in late July. Later this year, the council is also expected to approve a beginning set of targets for ecosystem health. This information then will be published biennially by PSP to measure performance in relationship to its overall goal to restore Puget Sound's health by 2020.

Similarly, the Lower Columbia River Estuary Partnership (LCREP) formally adopted indicators to measure the effectiveness of its management actions under its estuary management plan. A list of the indicators that LCREP actively monitors is also listed in Appendix C. Except for habitat restoration, LCREP has not formally established targets for the estuary. In consultation with its science work group, LCREP staff developed its set of indicators for its Board of Directors approval for its 2005 report. In developing the indicators, the staff assessed the accessibility of the data and drew from the work done by other national estuary programs.

Indicators, targets and a monitoring system for ecosystem health have not been established for Washington's coast. Acknowledging that each marine geographic area needs to tailor its selection of indicators to best fit its own vision and goals, some benefit may be gained by drawing from the indicators and processes used by the Puget Sound Partnership and the Lower Columbia River Estuary.

A review of the indicators used in other marine waters and estuary bodies from around the country may also be helpful in formulating indicators for Washington's coast. For example, in 1995 the Willapa Alliance produced a report that contained a comprehensive list of indicators for environmental, economic and social sustainability in Willapa Bay. The indicators are extensive in detail and numerous categories of information. While not necessary for providing an overview of ecosystem health, this detailed information may be useful for reference in the development of indicators for Washington's coast.

The Olympic Coast National Marine Sanctuary provides a "state of sanctuary resources" that rates the condition and trends for seventeen specific qualities involving water, habitat, living resources and maritime archaeological resources. While this rating system derives from a

system-wide monitoring framework used for the national marine sanctuary program, it could help inform development of indicators specific to Washington's coast.

EPA and NOAA have also developed indicators for the West Coast related to biodiversity and water quality. These, along with readily available data for habitat and biodiversity and water quality from other state and local entities, are listed in Appendix C. The federal data also might be considered for the California Current Large Marine Ecosystem and, thereby, provide a common set of environmental indicators for both Washington's coast and the larger marine ecosystem that Washington's coast is a part of. While these indicators do not cover the social and economic domains, Washington Sea Grant is working with the Northwest Fisheries Science Center to develop a set of indicators for these areas that could serve as a foundation for discussion about whether and how they might be incorporated into a Washington coast indicator development effort.

Key findings: Indicators
Puget Sound and the lower Columbia River both have estuary-wide plans and central coordinating groups, which have already established indicators that could be useful in implementing MSP for these regions.

No coordinated, coast-wide indicators have been adopted by the state for Washington's coast. However, several entities have adopted indicators, especially federal agencies, which could provide a basis for developing broader ecosystem and MSP-specific indicators for this region. Developing clear criteria for assessing the usefulness of indicators will lead to more helpful indicators and help ensure more consistent, effective evaluation across all the state's marine waters

Establishing indicators is essential to monitoring effectiveness of tools like marine spatial planning in helping to achieve the comprehensive vision for a marine area. Indicators can track overall ecosystem health, including the social and economic health of humans, as well as the performance of a marine spatial plan. Indicators are most effective when they have targets and are monitored and when management activities are adapted based on the information.

SSB 6350 directs the state's interagency team to propose a schedule for developing indicators for Washington's coast. A schedule for indicator development is integrally related to organizational issues. Specifically, unlike Puget Sound or the lower Columbia River, there is no central, cross-jurisdictional coordinating body to oversee the MSP process, including indicator development and adoption, for Washington's coast. While acknowledging current budget realities, there may be an opportunity to improve the level of coordination on the coast through a Memorandum of Agreement (MOA) among key jurisdictional interests involved in Washington's coastal activities such as tribes, local, state, and federal agencies. An outline of potential key components (jurisdictions and tasks) for such an MOA is included in Appendix D.

Spatial data and data management

Other MSP processes' approaches to data and data management
Groups involved with marine spatial planning efforts around the country and world have reported that most of the time and budget for MSP is typically spent on gathering and managing

data and information.[37] MSP efforts have utilized a variety of approaches to spatial data and data management. The following section provides a snapshot of some common and unique approaches by a few of these other efforts.

Many MSP efforts target a few new spatial data types to collect. Often, these have included mapping major human uses and the seafloor such as done for Oregon and California's planning efforts. These efforts are typically coordinated by a lead planning agency, but sometimes separate entities work to collect information that can be used as part of the planning process.

MSP processes often determine criteria for spatial data, identify and gather existing spatial data that can be used for planning, and convert it to products that can be used for analyses. Some states, like California and Massachusetts, have chosen to set up scientific advisory groups to assist with these tasks.

MSP processes typically utilize spatial scenarios and provide access to baseline spatial data via maps or online tools. Massachusetts developed a series of maps to inform the planning process and provided access to view the data online. Other efforts focus on developing a central tool for viewing as well as analyzing the data. Sometimes this tool is publicly accessible, as in California's process, other times a lead agency conducts the data analyses and generates management scenarios.

Summary of spatial data needs

Working session results

As mentioned earlier, the State Ocean Caucus sponsored a working session on spatial data. The working session was designed to provide input to the State Ocean Caucus on spatial data needs, priorities and issues for marine spatial planning in Washington.[38]

The overall goal established for the meeting was to provide input to the Washington marine spatial planning report and recommendations on spatial data. Two specific objectives of the meeting were to:

1. Understand key types of spatial data needed to support marine spatial planning in Washington, including addressing priorities for adjacent federal waters.

2. Understand barriers and potential solutions to data accessibility and sharing to support MSP efforts in Washington.

The working session participants were given a preliminary list of spatial data types drafted by the State Ocean Caucus and were asked to determine what other types of spatial data would be needed to support a range of potential marine spatial planning issues. The following is the resulting revised preliminary list of spatial data types needed to support marine spatial planning:

[37] Beck, M.W., Z. Ferdaña, J. Kachmar, K.K. Morrison, P. Taylor and others. 2009. *Best Practices for Marine Spatial Planning.* The Nature Conservancy, Arlington, VA.

[38] For a more detailed summary report from this working session, please see the marine spatial planning website at: http://www.ecy.wa.gov/programs/sea/msp/

Table 5 - Preliminary List of Spatial Data Needed to Support Marine Spatial Planning

Physical/Chemical	Biological	Human	
○ Oceanographic processes: upwelling, eddies, fronts, atmosphere, tides ○ Energy: waves, currents, wind speed, other extractive resources (oil, mining), data quantifying energy resource (in time and space) ○ High-resolution bathymetry-topography (water depth and land elevation) ○ Sediment transport: drift cells ○ Sediment quality ○ Water quality & water chemistry: dissolved oxygen, carbon dioxide/acidification, turbidity, salinity, sea surface temperature, Pathogens (human & animal, Harmful Algal Blooms), and significant water-quality problem areas ○ Hydrography: Freshwater input to marine system, rivers/streams ○ Seafloor type: substrate and substrate depth	○ Marine mammals: migration routes, haul-outs, species densities, core feeding areas, rookeries ○ Coastal and marine birds: migration routes, nesting and feeding areas; endangered, threatened and declining species ○ Marine fish: local and pelagic species, larval fish assemblages, salmon migration, forage fish spawning areas ○ Habitats across shoreline, intertidal, nearshore, benthic, pelagic areas: aquatic vegetation (kelp, eelgrass), biogenic features (corals/sponges), wetlands, dunes. ○ Fish and shellfish stocks and nursery grounds ○ ESA-listed species: life history strategies & critical habitats	*Human Uses & Managed Areas* ○ Aquaculture areas: Bush and Callow Act privately owned tidelands, commercial leases, etc. ○ Fisheries: commercial & recreational, level of use/importance, fish consumption advisory areas ○ Recreational use areas: surfing/diving/swimming, boating (water trails, mooring areas, launches, and pump-out sites), public access sites, wildlife watching, and other major uses. ○ Navigation routes: Federal and commercial shipping lanes, ferry routes, tow boat and barge lanes, self defined routes, traffic, places of refuge, anchorages, Area To Be Avoided ○ Tribal use areas ○ Culturally and historically significant sites ○ Conservation & regulated areas: Essential Fish Habitat, reserves, sanctuaries, wildlife refuges, parks, restoration sites (current/potential), conservation priority areas and other marine protected areas	*Human Infrastructure* ○ Navigation infrastructure: buoys, other buoys, aids and markers ○ Ports and marinas and related infrastructure; port-by-port analyses: social economic analysis, port growth & sustainability ○ Cables: telecommunication, fiber-optic and power (underwater and coastal landings) ○ Disposal sites: Dredge material and military disposal ○ Outfalls: Waste water and other utility outfalls (e.g. stormwater) ○ Scientific research equipment and cables ○ Power: Transmission lines and power substations

Physical/Chemical	Biological	Human	
○ Geological processes: methane vents and hydrates, faults, submarine and shoreline landslides (slope stability), subsurface geology, and inundation data important for risk management (e.g. flooding, storm surge, tsunamis) ○ Geomorphic characterization (nearshore-shoreline), and other shoreline definitions ○ Climate Shifts: oceanographic patterns (Pacific Decadal Oscillation/El Nino Southern Oscillation), sea level rise, etc. ○ Noise/sound	○ Larval data: specification, quantification, monitoring & modeling (source & sink data) ○ Marine invertebrates ○ Planktonic communities ○ Invasive species ○ Fish & Shellfish diseases ○ Biodiversity modeling (habitat and species)	○ Mitigation areas ○ Military boundaries & training areas ○ Ownership: shoreline, tidelands and submerged lands, leases ○ Emerging marine uses: preliminary permits for proposed energy projects ○ Emergency management areas (e.g. oil spill response & prevention plans) ○ Other management plans and measures: Use authorizations for extractive resources, shoreline designations under Shoreline Master Programs and other existing spatial plans in Washington (e.g. Willapa) ○ Jurisdictions: including state and federal waters (3-200 nautical miles) ○ Economic data: benefits/income areas from human uses (NOAA data) ○ Research activities ○ Viewscape ○ Demographic Data: population & socio-economic characterization ○ Marine Debris locations	○ Over-water structures and shoreline alterations: hardening, jetties, groins, dikes, tide gates, and other shoreline developments

As part of this working session, participants also selected the priority types of spatial data needed to support marine spatial planning in Washington, which included:

- Bathymetry-topography
- Fisheries
- Habitats
- Conservation/regulated areas
- Water quality
- Oceanographic processes
- Marine fish
- Geomorphic characterization
- Endangered species

In particular, top votes across the teams went to the following data types: Bathymetry-topography, Fisheries, Habitats, and Conservation/regulated areas. However, many participants acknowledged that having the full list of spatial data would be most helpful to support marine spatial planning. In addition, many participants noted the need to convey seasonal or temporal variability of data and the need to understand potential future changes to resources and uses, such as incorporating climate change impacts. Appendix E contains a summary of the key findings and recommendations from the working session; the complete summary report of the event is available on the marine spatial planning website.[39]

Survey results

In addition, the online survey included a question on spatial data.[40] Of the general types of spatial information, a majority of respondents indicated that information on the following were extremely important:

- Habitats, plants and animals.
- Human uses such as fishing, aquaculture, shipping and recreation.

Most of the other general data types were also selected by a majority of participants as either very or extremely important, including:

- Seafloor features such as depth, geology and sediment transport.
- Water column features such as waves, upwelling, water quality and temperature.
- Infrastructure such as cables, pipelines and ports.

Spatial data inventory results

The interagency team was unable to complete a final spatial data inventory for this report, However, the team did complete a preliminary inventory (see Appendix I) which provided helpful information about the gaps in spatial data as well as priority data sets. The Washington Geographic Information Council (WAGIC) has compiled a list of Washington's significant geospatial datasets for Washington. In addition to seeking information from a broad spectrum of data holders, WAGIC's list was helpful in beginning to fill out the initial marine spatial data inventory.

[39] Marine spatial planning website at: http://www.ecy.wa.gov/programs/sea/msp/
[40] See Appendix A for a more detailed summary and reporting of the survey results.

Summary of state data management needs and mechanisms

Working session results

As part of the State Ocean Caucus-sponsored working session on spatial data, participants discussed the barriers and needs for accessing and sharing spatial data to advance marine spatial planning. The following were some key recommendations from participants:

- Create a centralized on-line place to search for, download, and view spatial data and coordinate GIS data in the state with a GIS Council and central library/catalog.
- Establish data standards for metadata and data, including scale and resolution.
- Establish peer-review and Quality Assurance/Quality Control processes to screen data.
- Provide resources to collect, create, and manage spatial data at all levels.
- Develop levels of data accessibility to protect sensitive data and explore data aggregation for public viewing.
- Give open access to data and provide a transparent process.
- Develop data use agreements, legal protections for data providers, document intended data uses, consult on appropriate data-sharing, and establish government-to-government relationships.
- Have original authors/owners maintain data and use compatible data formats.
- Develop an open-access, decision-support tool with temporal and spatial variability in data and ability to do multi-objective analyses. Identify specific objectives for the tool before building it.
- Utilize web services for sharing data.

Current state data management and delivery mechanisms and plans

In Washington, several types of mechanisms and plans are in place to improve the management of geospatial data. Since managing this type of data is also critical to marine spatial planning, this section summarizes some of these current efforts.

Washington Geographic Information Council

Washington Geographic Information Council (WAGIC) is recognized as the statewide body responsible for coordinating and facilitating the use and development of Washington State's geospatial information.[41] Current executive members of the council include: local, state and federal agencies and academic institutions. The council is open to representation from state government, federal government, local government, regions, Indian tribes, nonprofit, private, and educational entities. WAGIC, along with other partners, currently hosts a clearinghouse for geospatial data.

WAGIC's strategic plan and business plan adopted in 2010 both outline the key goals, elements and priority activities for the group. The five goals for WAGIC are:[42]

1. Establish Access Mechanism for Washington Geospatial Data
2. Staff GIS Program Office and Recruit a State Geospatial Information Officer

[41] Washington Geographic Information Council's website available at: http://wagic.wa.gov/

[42] For more details, see: Washington Geographic Information Council. *Geographic Information Systems Strategic Plan: Mapping Washington's Future*, 2010-2014. March 25, 2010. Available at: http://wagic.wa.gov/2009GISPlanning/Default.htm

3. Strengthen Coordination across Jurisdictions and Agencies
4. Develop Statewide Standards and Guidelines for Data and Services
5. Increase Awareness and Support for GIS through Education and Outreach

Like the working session participants, WAGIC's strategic plan similarly notes the need for "a data discovery and access mechanism that is easy to use, well-organized, searchable, and consistently updated. Benefits of such a tool include the ability to easily find and share data, reduced data redundancy, and increased opportunities for inter-governmental collaboration."

To accomplish this geospatial data access mechanism, WAGIC's business plan calls for providing shared GIS infrastructure by "establishing a single point of access for enterprise level data and web services to reduce confusion and storage costs of hosting multiple copies of data. Provide access to services like address matching, visualization tools, and applications that public, private, and governmental entities can use. Shared data will lead to better decisions as agencies work from official versions of data rather than multiple, unsynchronized, or inconsistent versions of data."[43] To support this work, WAGIC's business plan also calls for expanding the Washington State GIS Program Office as well as establishing formal GIS data stewards.

Information Services Board

The state Legislature created a different group, the Information Services Board (ISB) in 1987, and gave it authority for policy development, strategic IT planning, oversight of executive branch agencies' IT projects, and delegating authority to agencies for IT investments.[44] An executive sub-committee of the ISB is the Geographic Information Technology (ISB-GIT) which represents the strategic interest of a coordinated, enterprise approach to utilizing geographic information technology and, provides leadership for implementation of cost effective, collaboratively developed, spatial data management solutions. IBS-GIT and WAGIC have jointly adopted the same policies on data and metadata standards for geographic information technology and geospatial data, as well as procedures for establishing or revising these standards.[45]

GIS Reform Committee

This state committee is developing draft recommendations on Geographic Information Systems (GIS) reform for consideration by the Natural Resource Cabinet under the Governor's initiative on natural resource reform. Their draft recommendations will likely include items such as:

1. Establishing a single-point-of-access for geospatial data in Washington.
2. Providing staff for the GIS program office to improve coordination, develop and manage data clearinghouse, and maintain IT infrastructure.
3. Strengthening coordination
4. Developing statewide data standards

[43] Washington Geographic Information Council. *Geographic Information Systems (GIS) Business Plan: Washington Enterprise GIS Program and Shared Access to Geospatial Services*. May 27, 2010. Available at: http://wagic.wa.gov/2009GISPlanning/Default.htm

[44] The ISB is comprised of 15 members who represent the executive, judicial, and legislative branches, K-12 education, higher education, an agency headed by a statewide elected official other than the governor, and the private sector. Eight of the members are appointed by the governor. For more information, see: http://isb.wa.gov/default.aspx.

[45] To access the standards policy and detailed procedures, go to: http://wagic.wa.gov/Techstds2/standards_index.htm

Exchange Networks

Increasingly, another way that data is managed and shared among groups is through exchange networks. Exchange Networks were first started as a partnership among states, tribes, and the U.S. Environmental Protection Agency to exchange environmental information. Partners on an Exchange Network share data efficiently and securely over the Internet.[46] An Exchange Network can also serve data drawn from multiple sources in reports to the public via a single access point. This new approach is providing real-time access to higher quality data while saving time, resources, and money for partner states, tribes, and territories.

Exchange networks are now being used in the Pacific Northwest to exchange water quality data, in the Gulf of Maine to exchange coastal and ocean data, and along the West Coast to exchange fisheries data. A data exchange for the Puget Sound Partnership is also currently under development. Groups are also starting to use these types of networks to exchange geospatial data.

Key findings: Spatial Data

Spatial data and data management is essential to conducting marine spatial planning. Acquiring and managing this data often requires a significant amount of time and funding for MSP processes. However, improving access to spatial data and filling gaps in data will aid planning and decision-making by agencies.

Many types of spatial data types are already readily available from a variety of sources, but much of the data only cover portions of Washington's waters or are not in a suitable format for easy geospatial analysis. However, many important spatial data types do not exist. More work is needed to identify available data and data gaps for supporting marine spatial planning.

Some relevant data types vary in both space and time. Reflecting temporal variability in data used for planning, where appropriate, will allow greater understanding of potential conflicts and compatibilities among uses and resources.

Particularly important spatial data types for MSP in Washington include: bathymetry-topography, fisheries, habitats, conservation/regulated areas, water quality, oceanographic processes, marine fish, geomorphic characterization, endangered species, ownership and human uses in the marine environment. Human use data is a broad category that covers many data types that would aide marine spatial planning. Among other things, this category covers cultural, commercial, and recreational patterns and locations of consumptive and non-consumptive uses of marine waters and resources including, navigation routes, fisheries, aquaculture areas, culturally and historically significant sites, tribal use areas, and military areas (See table 5 for the list of preliminary data types in this category).

Data and information used for marine spatial planning can be more robust, if it incorporates cultural and traditional knowledge and scientific information collected by citizens. However, this will require a transparent, peer-review process for determining how best to incorporate and utilize this information in a planning process.

[46] For more information on Exchange Networks, see: http://www.exchangenetwork.net/

Some mechanisms and plans exist that, if enacted fully, would better manage and deliver geospatial data in Washington. Many of these data management and delivery mechanisms could also be used to support some of the specific needs identified for marine spatial planning.

Developing and utilizing data standards is one efficient way to establish a common approach to data and enable easier data sharing, management and delivery.

A transparent process involving technical experts would be helpful to review and approve data used for planning and would help ensure the use of consistent standards as well as quality assurance/quality control of data.

Collecting, creating, and managing spatial data requires resources.

Chapter 3 – Recommendations: What needs to be done to conduct MSP?

The legislature requested that the interagency team's assessment of marine spatial planning include recommendations on several items, including:[47]

- Key needs for incorporating marine spatial planning into existing statewide plans with a focus on management activities and spatial data.
- Goals and objectives for marine spatial planning that integrate with existing policies and regulations.
- A schedule to develop marine ecosystem health indicators.
- Achieving a unified approach to database management and delivery that would support marine spatial planning throughout the state.
- A framework for conducting marine spatial planning and integrating the planning into existing management plans, including specific recommendations for Puget Sound action agenda, Columbia River estuary, and Washington's coast.

This chapter contains the recommendations of the interagency team, the State Ocean Caucus, based on the summary and analysis of information in Chapter 2. The appendices also provide supplemental information used during the development of the report and recommendations. More description on how the recommended elements relate to the marine spatial planning process is provided at the beginning of Chapter 2.

Focus of Marine Spatial Planning in Washington State

The State Ocean Caucus compiled information on current management activities to understand how marine spatial planning could be integrated with existing management and what gaps in management it might fill – see Chapter 2 for summary and findings. The group also extensively discussed the range of potential issues that could be addressed in the outcome of a plan and the fact that MSP processes in other states typically have a few key issues that drive the development of a plan. They also noted that the key planning issues may vary depending on the geographic region and potential funding sources may have particular requirements.

The recommendation below highlights a range of potential management issues that could be addressed by marine spatial planning. The list is not intended to cover the comprehensive types of information that should be considered, or factored in, when planning, but just on the focus of the plan itself. Recommendations on how to integrate MSP with current efforts and how to coordinate plan development among various federal, state, tribal, and local managers are provided later on in this chapter as part of several framework recommendations.

Recommendation 1 – Planning focus

Washington's marine spatial planning law requires a state plan to address at least renewable ocean energy. The state interagency team believes focusing on renewable ocean energy issue

[47] For specific language, see SSB 6350 Sect. 4.

would be a practical way to start building a marine spatial plan, but the plan could also cover a range of other issues. Marine spatial planning could address, but is not limited to, emerging new uses, expanding existing uses, or resolving conflicts among existing uses for issues such as:[48]

- Aquaculture, shellfish
- Aquaculture, offshore fish and other such as net pens
- Bio-prospecting: gathering and use of marine life for research or medicinal purposes
- Marine Transportation
- Oil and gas, including pipelines and spill prevention and response
- Protection, conservation, or restoration of sensitive environmental areas for habitats, plants or animals
- Scientific research and equipment: buoys, cables, etc.
- Sediment removal, placement or disposal such as from dredging activities
- Telecommunication or power cables
- Other, such as: underutilized & new fisheries or natural resources, military activities, recreation & tourism activities, siting for nuclear power activities, and climate change

Goals and objectives

A goal is a broad statement of the end purpose for an activity, in this case for conducting marine spatial planning. An objective more specifically identifies how that goal can be achieved. To develop recommended goals and objectives, the interagency team drafted initial goals and objectives based on the requirements listed in Washington's marine spatial planning law and requested feedback from the public. The group also reviewed and considered the state's existing goals and objectives and those adopted by the Obama Administration in the national framework for coastal and marine spatial planning. The following recommendations are based on the analysis of the information and key findings presented in Chapter 2. The purpose of a planning process is to find a way to balance goals and objectives, even when they may appear to conflict.

Recommendation 2 – General principles

The recommended goals and objectives for marine spatial planning in Washington should reflect unique concerns for Washington and the requirements of the state law, integrate with existing mandates for state agencies and policies, and incorporate relevant and compatible national goals for CMSP.

Recommendation 3 – Goals

Adopt the following goals for marine spatial planning in Washington, which closely mirror those adopted by the national framework for CMSP. *Note: the numbers for the goals do not connote any particular priority*.

[48] While the State Ocean Caucus focused on the utility of planning for addressing new, expanding or conflicting uses, the team developed this list with the understanding that marine spatial planning should be conducted within the context of ensuring sustainability of marine resources.

Overarching goal: To protect, sustain, and appropriately utilize the state's marine waters and resources through coordinated decision making in a proactive, comprehensive and ecosystem-based manner.

Specific goals:

1. Support sustainable, safe, secure, efficient, and productive uses of the ocean and our coasts, including those that contribute to the economy, commerce, recreation, conservation, homeland and national security, human health, safety, and welfare, or have cultural value.
2. Protect, maintain, and restore the state's ocean and coastal resources and ensure resilient ecosystems and their ability to provide sustained delivery of ecosystem services.
3. Provide for and maintain public access to the ocean and coasts.
4. Promote compatibility among uses and reduce user conflicts and environmental impacts.
5. Improve the rigor, coherence, and consistency of decision-making and regulatory processes.
6. Increase certainty and predictability in planning for and implementing new investments for ocean and coastal uses.
7. Enhance interagency, intergovernmental, and international communication and collaboration.
8. Recognize tribal treaty rights throughout the planning process.

Recommendation 4 – Objectives

Establish the following objectives for marine spatial planning in Washington:

- Recognize and respect tribal treaty rights through proper government-to-government consultation and co-management.
- Recognize and value existing uses, which includes, but are not limited to, recreational, commercial, cultural, and security uses.
- Promote protection and restoration of biodiversity and ecosystem processes to a level that will enable long-term sustainable production of ecosystem goods and services.
- Address potential impacts of climate change and sea level rise upon current and projected marine water uses and shoreline and coastal impacts.
- Foster and encourage sustainable uses that provide economic opportunity and preserve coastal heritage without significant adverse environmental impacts.
- Preserve and enhance public access to, commercial and recreational uses of, and other values for marine waters and shorelines.
- Protect and encourage working waterfronts and support the infrastructure necessary to sustain water-dependent uses such as marine industry, commercial shipping, commercial, tribal and recreational fisheries, and shellfish aquaculture.
- Foster public participation and significant involvement of communities adjacent to the state's marine waters in decision-making.
- Integrate existing management plans and authorities and makes recommendations for aligning plans to the extent practicable.
- Rely on best available science and create a process to adjust plans to incorporate additional science as it is available.

- Improve scientific information about the marine ecosystem to fill data gaps, answer key management questions, and inform planning and decisions through adaptive management processes.
- Use the precautionary approach as reflected in Principle 15 of the Rio Declaration, "Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

Consistency of recommended goals and objectives

The legislation also requires this report to summarize how the recommended goals and objectives are consistent or inconsistent with those adopted by other states for the West Coast region and by the national ocean policy and national framework for coastal and marine spatial planning.[49]

As noted above and in Chapter 2, the State Ocean Caucus' recommended goals for marine spatial planning are consistent with those adopted at the national level (yet also address unique concerns to Washington State). The recommended objectives also align well with what the national framework terms "planning principles", including elements such as public participation, treaty rights, best available science, addressing climate change, adaptive management, and use of the precautionary approach. However, the national planning principles provide far more detail than Washington's and include additional policy and process principles such as referring to consistency with international, federal and state laws.

The goals and objectives for the West Coast region adopted by Oregon, California, and all three states under the West Coast Governors' Agreement on Ocean Health (WCGA) are consistent with the recommended goals and objectives for marine spatial planning at a very high level. As noted in Chapter 2, the goals and individual actions by these states vary, but have some common themes and priorities with Washington. Also, the WCGA has not adopted any specific goals or objectives for marine spatial planning at the regional level. These factors make it more difficult to directly compare the consistency of these state and regional efforts to the State Ocean Caucus' recommendations. However, there do not appear to be any major inconsistencies.

Ecosystem indicators

As mentioned in Chapter 2, the legislature required the interagency team to recommend a schedule for developing ecosystem indicators. However, indicators have already been adopted for Puget Sound and the Columbia River. Therefore, the following recommendation focuses on the process and schedule for establishing ecosystem indicators for Washington's coast. A related recommendation on the overall MSP structure and process for Washington's coast is provided later on as part of the framework recommendations.

Recommendation 5 – Establish committee to develop indicators

A coordinating body for Washington's coast should form a subcommittee involving tribal, federal, local and state policy leads who will review existing indicator information on the status

[49] SSB 6350 Section 4(2)(c).

of the coastal and marine ecosystem, including humans, and tailor that information to formulate high-level ecosystem indicators that relate specifically to the health of Washington's coast and that may track processes that humans or a marine spatial plan may not be able to influence. These indicators should cover ecological, social, and economic elements and should be consistent with those being considered for the California Current Large Marine Ecosystem and, where appropriate, compatible with those developed for the Puget Sound and Columbia River. More specific indicators should also be developed to track performance of a marine spatial plan.

The potential indicators should be reviewed for comment by an independent science review panel prior to formal adoption by the coordinating body for the coast. This process to establish ecological indicators should be completed within one year from its start. Less work has been done on social and economic indicators to date and more time is needed to develop proposed indicators for these areas. The process for social and economic indicators should be completed within two years of its start.

Spatial data needs

As noted in Chapter 2, spatial data is an essential part of conducting marine spatial planning. The State Ocean Caucus used a variety of information to identify the key types of spatial data needed to support a range of marine spatial planning issues. However, this initial assessment was done rapidly and did not allow for a complete assessment of the spatial data available from the many entities that have relevant data and information as well as identifying major gaps in data. More work will be necessary to further refine and prioritize these key spatial data needs. In addition, the group felt some types of spatial data would need to be captured conveyed in a way to reflect temporal or seasonal variation of the resource or activity, including future changes in climate.

Recommendation 6 – Priority data needs

Collect priority spatial data to support marine spatial planning in Washington. Data on human uses will be essential for good planning. The human uses category includes cultural, commercial, and recreational patterns of use of marine waters and resources – both consumptive and non-consumptive. Additional priority spatial data types are also needed and should be collected to support marine spatial planning in Washington:[50]

- Bathymetry-topography
- Fisheries
- Habitats
- Conservation/regulated areas
- Water quality
- Oceanographic processes
- Marine fish
- Geomorphic characterization
- Endangered and Threatened species, including their critical habitats, state sensitive species and state species of concern.

[50] This list is not intended to limit the types of spatial data collected or used to support a planning process, merely provide an initial sense for higher priority types of data. A more complete list of the types of data that would assist planning is included in Chapter 2.

- Ownership

Certain types of spatial data should be collected and conveyed in a manner that reflects major temporal or seasonal patterns, where appropriate and feasible. Additionally, planning should seek to incorporate relevant cultural or traditional knowledge and scientific information collected by citizens. However, using these types of information appropriately will require establishing a technical, peer review process for scientific information as part of the planning process. A planning process should seek to construct a basic, broad baseline of spatial information to support a marine spatial plan, while more detailed, site-specific information should be collected and required as part of the project-level permitting process.

Data management and delivery

The state legislature required this report to include recommendations on achieving a "unified approach to database management and delivery." Chapter 2 provides a summary of current activities and needs related to data availability and management. In assessing the information, the State Ocean Caucus found that achieving this unified approach would be most effective by building off efforts already underway in the state and establishing a process for determining technical standards. More evaluation and information of current data tools is needed to understand the effectiveness of other potential options in supporting marine spatial planning.

Recommendation 7 – Accessing data

Use spatial data required for marine spatial planning as a pilot for development of a single-point-of-access for Washington GIS data and provide staff support for GIS program office. The state should pursue the enterprise option outlined in WAGIC's business plan to best fit needs of agencies and public for MSP in terms of searching, viewing, and accessing geospatial data. The state should also pursue connections to regional GIS capacity and regional data portals, including tribal, federal, local, academic, and non-governmental sources, where appropriate.

Recommendation 8 – Data standards

Develop and utilize data standards for ensuring a unified approach to data use and management in planning and ensuring quality control by setting up and utilizing a transparent, peer-review process involving technical and scientific experts. In addition, adopt ISB-GIT standards process for data creation and metadata standards and recommend that all metadata for GIS data, applications, and services are documented in the WAGIC clearinghouse.

Recommendation 9 – Data sharing

Evaluate the use of an exchange network or other similar tools for sharing and managing data for marine spatial planning.

Recommendation 10 – Decision tools

Evaluate existing state agency tools and regional data portals for managing and analyzing spatial data and evaluate whether the development of a decision-support tool is needed to support MSP.

MSP Framework: How do we get there?

The framework provided below is a conceptual outline of the recommended process, or structure, for conducting marine spatial planning. This framework includes the following:

- The major substantive elements required to be in a plan according to the law.
- Recommendations on the process elements that should be utilized across the state including public involvement, tribal consultation, and agency roles, including federal, inter-state, and international collaboration.
- Recommendations on the planning process for specific geographic areas: Puget Sound, Columbia River estuary, and Washington's coast.

During the development of the report, questions were raised regarding the requirement of this report to recommend a framework for marine spatial planning. The framework provided is not, in itself, a marine spatial plan. Nor does this framework provide answers to questions that would be addressed in an actual planning process such as the policy considerations for particular uses and how to weigh the tradeoffs between various planning scenarios. The framework also does not attempt to answer questions that are typically handled by project level permitting such as appropriate mitigation measures. To implement the state's marine spatial planning framework, securing federal or non-state funds is essential. At the end of this chapter, the State Ocean Caucus provides some recommendations on how Washington can move forward to secure these resources.

In developing these recommendations, the State Ocean Caucus reviewed and considered the mechanisms used by other states during their MSP processes to assist with the development of the recommended options outlined below. The process used in various sub-regions as well as funding availability will play a role in determining which options are most feasible to pursue.

Recommendation 11 – Plan Elements

Under Washington's MSP law, any comprehensive marine spatial plan developed for all or part of Washington waters must include the following elements:

- Use priorities and limitations for federal waters
- Ecosystem assessment
- Series of maps
- Implementation strategy
- Framework for coordinating review of renewable ocean energy proposals

Recommendation 12 – Public Involvement

Use a range of mechanisms to foster public participation and involvement of coastal communities throughout the planning process. Options include establishing a broad-based steering committee for the statewide process; establishing an advisory group comprised of a cross-section of affected stakeholders, agencies, and interested parties to advise the planning process for the coast or using existing governance and advisory bodies for Puget Sound and Columbia River estuary; conducting public outreach meetings and workshops from initial scoping stages through drafts and final adoption of the plan; engaging community-based interest groups and standing resource management entities. Marine Resource Committees can be a

particularly useful mechanism for fostering local public involvement and participation during the planning process.

Recommendation 13 – Tribal consultation

Any marine spatial planning process needs to recognize treaty rights and foster a co-management relationship with the tribes regarding ocean and coastal resources. Ways to achieve this include inviting individual tribes to participate in government-to-government consultation and communication with the state as well as establishing or utilizing tribal-state policy forums modeled after the Ecology Tribal Environmental Council or Olympic Coast Intergovernmental Policy Council. Initiating government-to-government consultation involves contacting the tribal chair, but will be facilitated by including Natural Resource directors in any initial communication. Thereafter, consultation can occur with those leads designated by the tribe.

The four coastal treaty tribes (Makah Tribe, Hoh Tribe, Quileute Tribe, and Quinault Indian Nation) jointly recommend using the following definition of government-to-government consultation and adopting a generic approach to consulting with tribes throughout a marine spatial planning process (see text box definition and Figure 1, below).

Government-to-Government Consultation

*From Makah, Hoh, Quileute and Quinault Indian Nation

Tribal consultations are planned, structured meetings between officials of the State of Washington and the affected tribe(s) or their designees. They refer to meetings, either in person or via phone/video teleconference, between officials of the State of Washington and the affected tribe(s) or their designees, which are planned, structured and understood by both parties as consultation. Communications outside of consultation meetings may be part of the overall consultation process, but these communications cannot be interpreted as consultations, themselves.

Tribal consultation means the process of seeking, discussing, and considering the views of the tribal government(s), at the earliest time in the State of Washington's decision-making. Consultation means more than simply providing information about what the State of Washington is planning to do and allowing comment. Rather, consultation means respectful, meaningful, and effective two-way communication that works towards the goal of consensus reflecting the concerns of the affected Tribe(s) before the State of Washington makes its decision or moves forward with its action. The objective is to promote cooperative decision making on activities that may impact treaty trust resources, the exercise of tribal rights on Indian lands and waters.

Some Tribes may choose to develop more individually defined consultation procedures outside of the Washington State Marine Spatial Planning framework process (SSB 6350). The consultation procedures outlined above reflect the guiding objective and basic process that will be enacted.

Recommendation 14 – Technical and scientific expertise

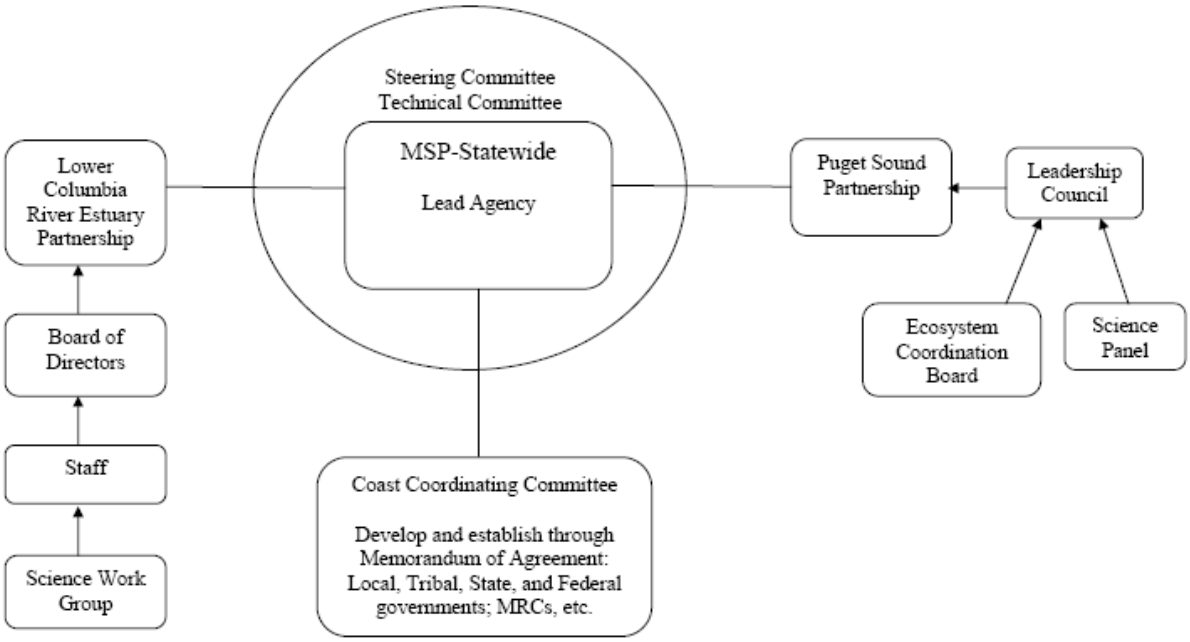
Create a mechanism for integrating scientific and technical expertise and advice as part of MSP. Options to consider include engaging existing scientific advisory forums, groups or panels for input; hosting workshops or meetings focused on scientific and technical tasks and advice; and establishing a technical/scientific advisory group.

Recommendation 15 – Develop geographic plans and assign lead agency

Develop marine spatial plans for three major geographic regions of the state: Puget Sound, the Columbia River, and the coast (see Recommendations 16, 17, and 18). This will allow flexibility for these areas to address unique planning issues. Integrate with existing plans in Puget Sound and the Columbia River estuary to maximize efficiency. Develop criteria for effective integration with existing plans and evaluate throughout the process to ensure criteria are met.

Establish a mechanism for coordinating these individual planning efforts to ensure statewide consistency and compatibility as well as to maximize leveraging of resources for common needs such as data collection and data management. While the legislation calls for the interagency team to oversee these functions, the State Ocean Caucus recommends establishing a lead agency to coordinate marine spatial planning activities statewide in consultation with a broader steering group. Figure 2 below provides one example for how these efforts could be structured and coordinated.

Figure 2 - Governance Example for Marine Spatial Planning in Washington



Recommendation 16 – MSP in Puget Sound

The Puget Sound Partnership should include a marine spatial planning component in the Puget Sound Action Agenda. The Partnership already has a defined a planning area and adopted goals. They should use their existing Action Agenda update process to incorporate MSP into the Action Agenda. Steps should include:

1. During the 2011 review of the Action Agenda and the biennial science work plan, assess the potential of MSP as a management strategy to meet Action Agenda plan goals and to address priority threats to the ecosystem.
2. Develop the Action Agenda and incorporate MSP into strategies and actions.
3. Identify and fill data gaps.
4. Develop marine spatial plan component.
5. Leadership council adopts updated Action Agenda strategies and actions.
6. Implement Action Agenda and assess and report on effectiveness.
7. Utilize adaptive management processes to modify Action Agenda plan.

Recommendation 17 – MSP in the Columbia River estuary

The Lower Columbia River Estuary Partnership (LCREP) should integrate marine spatial planning into the management efforts for the Columbia River estuary. The Lower Columbia River Estuary Partnership (LCREP) already has a defined planning area and adopted goals for the estuary. They should use their existing planning process and advisory groups to integrate MSP into the management efforts for the Columbia River estuary. Steps should include:

1. Estuary Partnership Board adopts MSP as a goal.
2. Estuary Partnership staff and Science Work group review Estuary Partnership Comprehensive Conservation and Management Plan goals, management activities and strategies, threats, and assess the potential of MSP to meet some of these needs. Determine specific elements, focuses, actions or outcomes for MSP
3. Estuary Partnership staff and Science Work Group identify specific elements, focuses, actions or outcomes that would incorporate MSP into the Comprehensive Conservation and Management Plan.
4. Develop marine spatial plan component, including filling data gaps and reviewing plan with key stakeholders, including but not limited to state agencies or entities in addition to Science Work Group and key constituent groups.
5. LCREP Board of Director's adopts the marine spatial plan component into the Management Plan.

Recommendation 18 – MSP for Washington's coast

Develop a marine management plan with a marine spatial plan component for Washington's coast using the following steps:

1. Scope out and establish a coordinating body (such as the coastal coordinating committee in Figure 1, above) for pursuing MSP for the coast through a collaborative process that involves all levels of government (state, tribal, federal, and local) with jurisdiction. Use a broad working group to develop, explore, and evaluate specific roles and membership for a coast coordinating committee with various governments, groups and interests on the coast, including tribes, local and federal governments, marine resource committees, and

stakeholders. Specific roles on the coordinating body and for the various groups in the MSP process for the coast could be established through a Memorandum of Agreement. Establish additional planning process elements for public involvement, scientific expertise, tribal consultation and agency implementation (see statewide recommendations for options). The marine resource committees may be particularly helpful in exploring potential funding opportunities for supporting planning on the coast.

2. Expand effort to acknowledge and review existing management plans, priorities and authorities for the coast such as the Olympic Coast National Marine Sanctuary Management Plan, Washington's Ocean Action Plan, and the national Coastal Zone Management Act and Washington's state Coastal Management Program. Coordinate efforts with broader regional ocean health and CMSP efforts, where appropriate. Refine goals and objectives for broader ecosystem and MSP process to address any specific gaps.
3. Identify and fill data gaps.
4. Develop plan.
5. Coordinating body adopts the plan.

Recommendation 19 – Plan implementation

Develop geographically specific implementation strategies that rely on existing agency authorities. Design a process to foster interagency implementation of the plan. Potential mechanisms to consider include establishing memorandum of understandings (MOUs) or other agreements and utilizing interagency teams to coordinate on plan implementation and/or project review.

Once the plan is completed, the marine spatial planning legislation requires that each state agency and local government make decisions in a manner that ensures consistency with the plan to the greatest extent possible. It also requires the Department of Ecology, in coordination with an interagency team, to periodically review existing management plans maintained by state agencies and local governments that cover the same marine waters as the marine spatial plan. Ecology must look for any substantial inconsistency with the marine spatial plan and make recommendations to the agency or local government for revisions to eliminate the inconsistency. Within four years following adoption of the marine spatial plan, Ecology, in coordination with the interagency team, shall report to the Legislature describing provisions of existing state and local management plans that are substantially inconsistent with the marine spatial plan and make recommendations for eliminating the inconsistency.

Finally, as outlined in Section 6 of marine spatial planning legislation, the Director of the Department of Ecology shall submit the completed marine spatial plan to the National Oceanic and Atmospheric Administration for its review and approval for incorporation into the states federally approved coastal zone management program.

Recommendation 20 – Federal integration

Coordinate with federal agencies on marine spatial plan development and implementation. Work with federal agencies during development of the state plan. Ensure that federal agencies consider state marine spatial plans when conducting activities that affect Washington's coastal

resources.[51] One way the state law ensures this is through submission of the final marine spatial plans for incorporation into Washington's federally-approved coastal zone management program. Other mechanisms may include establishing Memorandum of Understanding (MOU) or other agreements with relevant federal agencies for acknowledging state marine spatial plans. For example, Washington already has a MOU with the Federal Energy Regulatory Commission (FERC) regarding permitting and licensing for tidal or wave energy projects. This MOU encourages early consultation and communication regarding project proposals between the state and FERC. In addition, FERC also agrees to consider any comprehensive plan developed by Washington for the siting of tidal or wave energy projects when determining whether to issue permits or licenses.

Recommendation 21 – Regional coordination

The Washington MSP law also encourages the coordination of state efforts with broader regional and international planning efforts as resources allow. Given the large emphasis on developing regional Coastal and Marine Spatial Plans in the national framework, the State Ocean Caucus recommends that Washington continue to collaborate and coordinate with the other state, federal, and international[52] jurisdictions on the West Coast in development of regional plans. A particular focus should be through the West Coast Governors' Agreement on Ocean Health, or whatever entity is established to serve as the CMSP Regional Planning Body, as required in the new national CMSP Framework under Presidential Executive Order 13547.[53] Activities should include sharing information with other states and entities in the region regarding their marine spatial planning efforts and coordinating with them on appropriate technical standards and planning tools. This coordination will maximize the efficient use of resources and ensure regional planning considers and reflects Washington's needs.

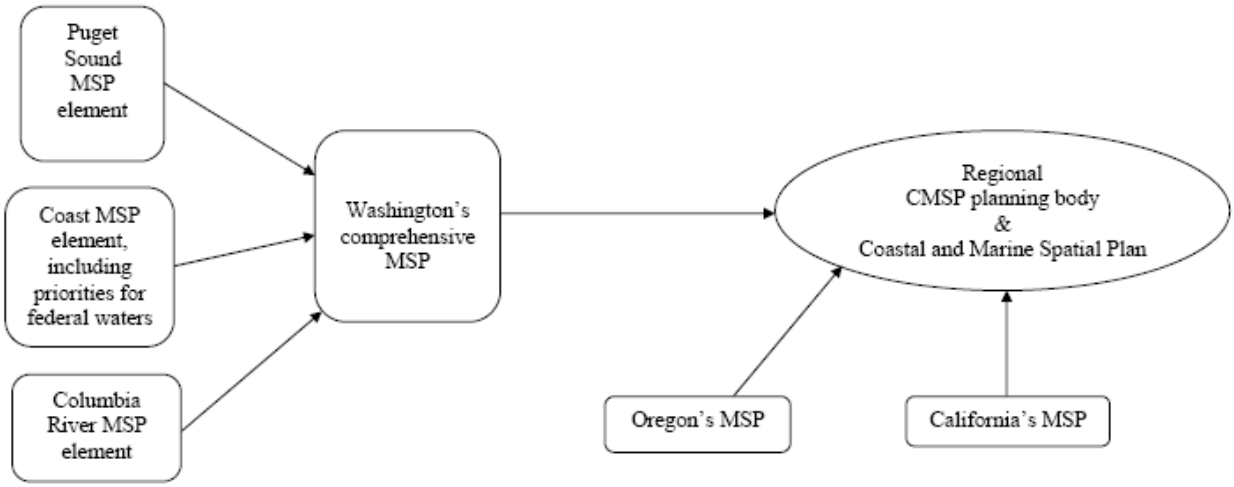
Figure 3 (page 61) provides one way to visualizes the potential relationship between regional and state level marine spatial plans on the West Coast, including the proposed framework for Washington's major marine areas. However, the national framework has not developed any detailed guidance on this relationship other than to note that regional plans should be consistent with and build upon state level plans.

Remaining issues and questions

Several issues arose during development of this report that the interagency team either didn't reach consensus on, have time to address, or felt would be better addressed during the planning process. This included issue-specific considerations like oil spill prevention and readiness, catastrophic events, and how to adapt to predicted impacts from climate change. It also included a range of planning process considerations such as: whether and how to define the public versus stakeholders and their role in planning and how to handle the various goals and objectives and tradeoffs required as a plan is developed. The State Ocean Caucus recognized these as important issues that should be addressed primarily during the planning process.

[51] This includes federal activities both within state waters and in adjacent federal waters (3 to 200 nautical miles offshore).
[52] Specifically, coordination should include Canada and relevant Canadian provinces such as British Columbia.
[53] The executive order sets out general composition for CMSP Regional Planning Bodies including state, federal and tribal authorities relevant to CMSP for that region.

Figure 3 – Connection between state and regional efforts



Next steps

Washington's marine spatial planning law requires federal or non-state funds to launch planning activities and, therefore, funding is a critical part of moving forward on MSP. MSP processes conducted by other states have had a wide range of costs, depending on their scope, but they typically cost at least several million to tens of millions of dollars. While the federal government has identified some potential sources of funding to advance CMSP in the proposed budget for 2011, more sustainable sources of federal funding will be required to adequately build everyone's capacity for doing marine spatial planning. This should not be done at the expense of existing programs addressing coastal and ocean resource management. In addition, private funds have assisted marine spatial planning efforts in other states.

While many of the recommendations provided above can be addressed by integrating with existing processes and leveraging other resources, conducting marine spatial planning requires securing additional funds and setting up additional processes. The options outlined above also have a range of potential costs associated with them. The federal and non-state sources of funding may or may not be sufficient to provide the necessary resources to launch comprehensive, statewide planning simultaneously and may have particular requirements attached to the funding. Depending on these factors, the state could consider phasing in planning by addressing certain geographic areas first or engaging in preliminary planning activities such as data collection, sharing or management that may take a significant amount of time, would benefit planning statewide, and could proceed until adequate funding is obtained for the planning process.

The State Ocean Caucus recommends the following state actions to continue to prepare for marine spatial planning in Washington State. These actions are not in priority order and are dependent on available resources.

1. Identify and seek non-state funding for initiating MSP activities and/or planning processes, including workshops or meetings to establish organizational structures and coordinate next steps.
2. Pursue government-to-government consultation with tribes regarding MSP activities and structures.
3. Finalize spatial data inventory and seek non-state funding to fill priority spatial data needs and gaps as well as improve access to information that is already available.
4. Further evaluate options for improving data sharing and data management and seek non-state funding for projects to advance these activities.
5. Evaluate establishing partnerships with a wide range of public and private groups with expertise for advancing particular aspects of MSP.
6. Continue efforts to advance MSP for the state by coordinating with the West Coast Governors' Agreement and related efforts in British Columbia, Canada on regional MSP and, where possible, utilize opportunities to advance priority MSP needs for the state that would also benefit regional planning.

Appendices

A. Survey results and summary

B. Existing state goals and objectives

C. Existing ecosystem indicators

D. Potential key components for Memorandum of Agreement for Washington's coast

E. Spatial data working session summary – key findings and recommendations

F. Step-by-step marine spatial planning process diagram

G. Summary table of all recommendations

H. Major themes from comments on draft report and general response

I. Initial inventory of spatial data to support marine spatial planning

Appendix A – Survey Results Summary

About the survey

The State Ocean Caucus chose to design and implement an online survey near the beginning of the marine spatial planning assessment. This allowed the team to gather initial input on some key questions and issues that were central to development of this report in a cost effective and efficient manner.

The survey included 10 questions covered topics important to the assessment and basic demographics of respondents, such as:

- Importance of different reasons for doing marine spatial planning
- Importance of various marine or coastal current uses
- Types of issues marine spatial planning should address
- Importance of various types of data to planning
- Where respondents live and their relationship to marine resources.

In several places, questions allowed for additions outside of the selections available in the survey question. Resources on survey design and delivery were consulted in order to maximize the effectiveness of the survey.[54]

The survey was distributed through a variety of email lists. The survey was sent directly to lists maintained by the State Ocean Caucus for the Ocean Policy Advisory Group and the WA-Ocean listserv. State Ocean Caucus members and others also forwarded it to related lists, including an article in Department of Natural Resources' "Ear to the Ground" online publication and twitter post, a Puget Sound Partnership listserv announcement, an email list of shoreline planners maintained by Department of Ecology, the Olympic Coast Intergovernmental Policy Council, and the Olympic Coast National Marine Sanctuary's Advisory Council members.

While surveys are only one tool for gathering public input, the survey was chosen because it provided a quick, efficient and low cost way of gathering and summarizing input at the outset of the process. These were important factors, since no additional resources were provided to the interagency team for conducting the marine spatial planning assessment.

However, the survey results reflect only the input of those who participated. The survey was conducted over a month-long period. The shorter time allowed may have limited participation. In addition, online surveys often favor participation by those with ready access to and familiarity with computers and the internet. While the survey was distributed widely and a fair response rate was achieved, no particular scientific sampling design was applied. Therefore, the survey results do not necessarily provide a representative sample of the larger population. Unlike interviews or face-to-face surveys, web surveys also do not offer an opportunity to clarify, if a respondent

[54] NOAA Coastal Services Center. 2007. *Social Science Tools for Coastal Programs: Introduction to Survey Design and Delivery.* Charleston, South Carolina NOAA/CSC/20717-PUB.
SurveyMonkey. *Smart Survey Design.* Copyright ©1999-2010 SurveyMonkey.

doesn't understand a question. Finally, technical glitches may present themselves during the process of attempting to respond to the survey and people may choose to skip questions.

Results

This text summary is designed to give a high-level overview of the responses to the survey. A detailed summary report is also included later on. Between May and June 28, 2010, 378 participants took the online survey.

Demographics
Of the respondents, a majority live on or near Puget Sound (70%), while the Coast had the second largest response rate (18%). The vast majority, 90%, indicated they were representing themselves in their response rather than a non-governmental organization or a government or agency (both 4% each), or a business or industry group (1.5%). The top three responses describing respondents relationships to marine resources were valuing the existence of marine resources (73%), visiting/using coastal areas, and eating marine resources (69% each). Just over half of respondents harvest fish and shellfish recreationally, while over a quarter make their living from activities that use marine resources. Over a quarter of respondents value marine resources for their cultural importance.

Reasons for conducting marine spatial planning
Of the various reasons to conduct marine spatial planning, a majority of respondents ranked the following factors as extremely or very important:

- Resolving conflicts between existing or future human activities.
- Deciding on which areas are most suitable for new human activities such as renewable energy or offshore aquaculture.
- Reducing adverse impacts from human activities on important natural areas.
- Creating a vision of what your marine area could or should look like in another 10, 20, 30 years from now.

Most people ranked the following reasons as important:

- Streamlining permitting processes
- Resolving conflicts between policies

Importance of various current marine or coastal uses
Planning requires the consideration of impacts to other current human uses and values of resources. For both Puget Sound and the coast, the highest percentages for very or extremely important to consider went to the following current uses or values:

- Habitats
- Conserving biodiversity
- Fishing or shellfishing
- Recreation and tourism
- Scientific research

Coastal respondents ranked more current uses and values as very or extremely important to consider during planning. In addition to those listed above, these additional current uses and values for the coast included:

- Aquaculture
- Dredging
- Infrastructure
- Ports & marinas
- Renewable energy
- Shipping and trade

The survey also included a question about the types of recreational uses respondents participate in. In Puget Sound, the most popular activities are beach walking, boating, and wildlife watching. A majority of respondents also indicated they camp, fish, and shellfish recreationally. On the coast, the most popular activities are beach walking and wildlife watching. A majority of respondents also noted they camp and shellfish on the coast. Kayaking, scuba diving, and snorkeling are activities that many more people indicated they do in Puget Sound than on the coast. More people surf on the coast than in Puget Sound.

Types of issues marine spatial planning should address

Marine spatial planning can address a variety of coastal and ocean issues and activities. The survey included a question on which issues a marine spatial plan in Washington should address. The state law requires planning for marine renewable energy as one element. The question provided a list of additional major categories of marine issues and activities.

Nearly one-third of all respondents indicated a marine spatial plan should address all of the issues listed in the question. Less than 5 percent indicated marine spatial planning should only address marine renewable energy.

In addition to marine renewable energy, for Puget Sound, a majority of respondents felt marine spatial planning should specifically address:

- Shellfish aquaculture (55%)
- Sediment placement or disposal (52%)
- Protection or conservation of sensitive environmental areas (56%)

In addition to marine renewable energy, for the coast, the majority of all respondents felt marine spatial planning should address:

- Scientific research equipment (51%)
- Protection or conservation of sensitive environmental areas (52%)

However, a majority of coastal respondents ranked additional issues as important for planning on the coast, including:

- Shellfish aquaculture (56%)
- Offshore aquaculture (51%)
- Scientific research equipment (66%)
- Sediment placement or disposal (72%)

- Oil and gas, including pipelines (58%)
- Shipping (55%)

Over two-thirds of coastal respondents indicated planning should address sediment placement and scientific research equipment.

Importance of various types of data to planning
Since spatial data is critical to marine spatial planning, the survey included a question on the importance of various general types of spatial information for planning. Most respondents ranked the following types as extremely important:

- Human uses such as fishing, aquaculture, shipping, and recreation (61.7%)
- Habitats, plants, and animals (60%)

Many of the other categories of spatial information were also rated as very or extremely important by a majority of respondents.

Reading the summary results from SurveyMonkey™

The detailed summary report and statistics are automatically generated by the online survey tool utilized by the team, SurveyMonkey™. This includes rounding results to the nearest tenth of a percent. Therefore, percentages provided for individual questions may not add up to exactly 100 percent. For questions 5 and 7, where the question provides a choice between geographic locations for a number of listed options, SurveyMonkey™ calculates the percentage based on the number of participants who selected a particular option rather than based on the total number of respondents for the whole question. For purposes of the written summary provided above, these percentages were recalculated to be based on the total number of respondents for each question. The recalculated statistics provides a more accurate reflection of the intended use of these percentages. However, the SurveyMonkey™ summary of results that follows provides their original calculations and statistics.

Survey: Marine Spatial Planning

1. This survey covers all marine waters in Washington, including estuaries. Do you live on or near?

	Response Percent	Response Count
Coast: includes areas from Cape Flattery to Cape Disappointment and estuaries such as Grays Harbor and Willapa Bay	18.5%	68
Columbia River	4.9%	18
Puget Sound: includes Strait of Juan de Fuca, San Juan Islands, and Hood Canal	**70.3%**	**258**
Non-coastal area in Washington	4.4%	16
Non-Washington resident	1.9%	7
answered question		367
skipped question		12

2. There are many different reasons for doing marine spatial planning. Please rate the importance of the following reasons for doing marine spatial planning in Washington based on current conditions or expected future conditions in Washington's marine areas:

	Not Important	Moderately Important	Important	Very Important	Extremely Important	No Opinion	Rating Average	Response Count
Resolving conflicts between existing or future human activities.	6.6% (24)	9.0% (33)	21.6% (79)	23.3% (85)	**37.5% (137)**	1.9% (7)	3.78	365
Deciding on which areas are most suitable for new human activities such as renewable energy facilities or offshore aquaculture.	4.6% (17)	8.2% (30)	15.3% (56)	29.5% (108)	**41.3% (151)**	1.1% (4)	3.96	366
Reducing adverse impacts from human activities on important natural areas.	6.6% (24)	10.2% (37)	15.9% (58)	18.4% (67)	**47.8% (174)**	1.1% (4)	3.92	364
Streamlining permitting processes.	13.8% (50)	20.2% (73)	**27.3% (99)**	15.7% (57)	20.2% (73)	2.8% (10)	3.09	362
Resolving conflicts between policies.	4.4% (16)	10.3% (37)	**29.4% (106)**	27.2% (98)	26.9% (97)	1.7% (6)	3.63	360
Creating a vision of what your marine area could or should look like in another 10, 20, 30 years from now.	8.6% (31)	8.0% (29)	21.0% (76)	26.2% (95)	**34.5% (125)**	1.7% (6)	3.71	362
						Other (please list and note its importance)		67
							answered question	367
							skipped question	12

3. Planning for any particular use in marine and coastal waters requires us to consider the impact to other human uses and values of these resources. Please rank the importance of the following uses or values in PUGET SOUND to you:

	Not Important	Moderately Important	Important	Very Important	Extremely Important	No Opinion	Rating Average	Response Count
Aquaculture	21.3% (71)	23.7% (79)	**24.0% (80)**	13.2% (44)	13.8% (46)	3.9% (13)	2.73	333
Conserving biodiversity	2.7% (9)	9.0% (30)	20.1% (67)	18.9% (63)	**45.8% (153)**	3.6% (12)	4.00	334
Cultural Values including historical and archaeological sites	11.5% (38)	24.2% (80)	**29.6% (98)**	19.3% (64)	13.3% (44)	2.1% (7)	2.99	331
Dredging	**23.8% (79)**	**23.8% (79)**	22.6% (75)	12.3% (41)	13.0% (43)	4.5% (15)	2.65	332
Infrastructure such as cables or pipes	10.8% (36)	26.5% (88)	**35.2% (117)**	13.9% (46)	9.6% (32)	3.9% (13)	2.84	332
Habitats such as eelgrass or kelp beds	2.1% (7)	4.8% (16)	14.8% (49)	22.0% (73)	**54.2% (180)**	2.1% (7)	4.24	332
Fishing or Shellfishing	2.4% (8)	4.2% (14)	17.7% (59)	27.0% (90)	**46.5% (155)**	2.1% (7)	4.13	333
Military Activities	25.5% (85)	23.7% (79)	**26.1% (87)**	10.8% (36)	9.9% (33)	3.9% (13)	2.54	333
Ports & Marinas	4.3% (14)	17.6% (58)	**32.8% (108)**	23.4% (77)	20.1% (66)	1.8% (6)	3.38	329
Recreation & Tourism	1.8% (6)	8.1% (27)	29.0% (97)	**31.4% (105)**	27.8% (93)	1.8% (6)	3.77	334
Renewable Energy	9.0% (30)	15.9% (53)	**28.1% (94)**	24.9% (83)	19.8% (66)	2.4% (8)	3.31	334
Shipping and Trade	6.6% (22)	15.5% (52)	**31.3% (105)**	25.4% (85)	17.9% (60)	3.3% (11)	3.34	335
Cruise Ships	**36.1% (120)**	22.3% (74)	25.6% (85)	7.2% (24)	6.0% (20)	2.7% (9)	2.23	332
Scientific Research	3.9% (13)	7.8% (26)	20.5% (68)	29.2% (97)	**37.0% (123)**	1.5% (5)	3.89	332
Views (aesthetics)	10.2% (34)	14.8% (49)	**30.7% (102)**	23.2% (77)	18.7% (62)	2.4% (8)	3.26	332
						answered question		337

skipped question	42	

4. Planning for any particular use in marine and coastal waters requires us to consider the impact to other human uses and values of these resources. Please rank the importance of the following uses or values on the COAST to you:

	Not Important	Moderately Important	Important	Very Important	Extremely Important	No Opinion	Rating Average	Response Count
Aquaculture	**25.2% (83)**	19.1% (63)	20.3% (67)	14.5% (48)	17.9% (59)	3.0% (10)	2.80	330
Conserving biodiversity	3.6% (12)	10.0% (33)	15.7% (52)	16.6% (55)	**51.4% (170)**	2.7% (9)	4.05	331
Cultural Values including historical and archaeological sites	11.7% (39)	22.3% (74)	**27.4% (91)**	19.6% (65)	17.8% (59)	1.2% (4)	3.09	332
Dredging	**27.4% (91)**	23.8% (79)	21.4% (71)	10.2% (34)	14.2% (47)	3.0% (10)	2.59	332
Infrastructure such as cables or pipes	14.3% (47)	30.1% (99)	**30.4% (100)**	13.1% (43)	9.1% (30)	3.0% (10)	2.72	329
Habitats such as eelgrass or kelp beds	1.2% (4)	6.6% (22)	15.4% (51)	17.5% (58)	**58.0% (192)**	1.2% (4)	4.26	331
Fishing or Shellfishing	2.1% (7)	3.6% (12)	13.0% (43)	30.0% (99)	**49.7% (164)**	1.5% (5)	4.23	330
Military Activities	24.7% (81)	25.0% (82)	**26.2% (86)**	10.7% (35)	9.5% (31)	4.0% (13)	2.53	328
Ports & Marinas	5.8% (19)	20.6% (68)	**31.5% (104)**	20.0% (66)	20.6% (68)	1.5% (5)	3.30	330
Recreation & Tourism	2.7% (9)	9.4% (31)	27.8% (92)	27.2% (90)	**31.1% (103)**	1.8% (6)	3.76	331
Renewable Energy	9.7% (32)	17.2% (57)	**27.2% (90)**	23.3% (77)	21.8% (72)	0.9% (3)	3.30	331
Shipping and Trade	7.1% (23)	16.0% (52)	**32.5% (106)**	23.9% (78)	18.4% (60)	2.1% (7)	3.31	326
Cruise Ships	**39.1% (129)**	25.5% (84)	21.2% (70)	6.1% (20)	5.2% (17)	3.0% (10)	2.10	330
Scientific Research	4.6% (15)	6.7% (22)	20.2% (66)	23.2% (76)	**44.6% (146)**	0.6% (2)	3.97	327

Views (aesthetics)	10.1% (33)	16.5% (54)	**26.9% (88)**	21.4% (70)	23.9% (78)	1.2% (4)	3.33	327
							answered question	334
							skipped question	45

5. Please select any of the main types of activities you participate in:

	Puget Sound	Coast	Response Count
Kayaking	**92.3% (143)**	29.0% (45)	155
Snorkeling	**91.4% (53)**	32.8% (19)	58
Beach Walking	78.4% (232)	**85.1% (252)**	296
Boating	**88.8% (247)**	59.0% (164)	278
Camping	76.4% (185)	**83.9% (203)**	242
Fishing	78.4% (185)	**82.2% (194)**	236
Shellfishing such as digging for clams or crabbing	**75.5% (182)**	72.2% (174)	241
SCUBA Diving	**95.4% (62)**	36.9% (24)	65
Swimming	**82.9% (102)**	60.2% (74)	123
Surfing	21.2% (14)	**100.0% (66)**	66
Wildlife Watching	**85.1% (240)**	82.6% (233)	282
I don't participate in coastal or marine-based recreation in this area	**100.0% (8)**	62.5% (5)	8
		Other (please list)	27
		answered question	339

skipped question	40

6. Please list any other major human uses or values of marine waters that should be considered during planning.	
	Response Count
	91
answered question	91
skipped question	288

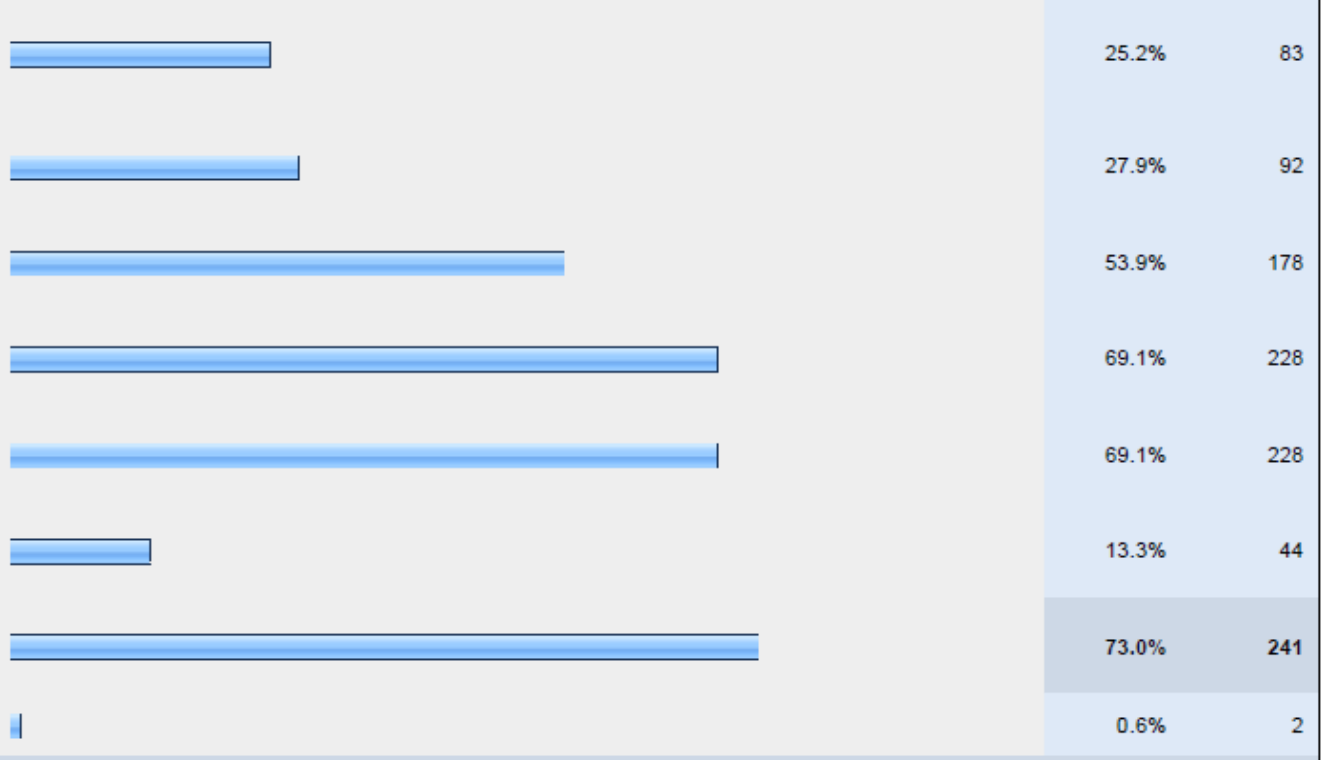
7. To understand how best to use marine spatial planning in Washington, we must identify what types of issues and problems to plan for in our marine waters. This type of planning can help address a gap in current management or help better align and guide management decisions more comprehensively. For example, the new marine spatial planning law in Washington identifies planning for marine renewable energy as one required element of a plan. Please select any other issues you think marine spatial planning should address:			
	Puget Sound	Coast	Response Count
Shellfish Aquaculture	**87.4% (180)**	71.8% (148)	206
Offshore Fish Aquaculture such as net pens	76.1% (150)	**80.2% (158)**	197
Telecommunication or power cables	**87.8% (129)**	70.1% (103)	147
Scientific research equipment such as buoys, cables, or other devices installed in marine waters	82.2% (157)	**87.4% (167)**	191
Sediment placement or disposal such as from dredging activities	**81.2% (173)**	76.1% (162)	213
Protection or conservation of sensitive environmental areas for habitats, plants or animals	**88.9% (184)**	82.1% (170)	207
Oil and gas, including pipelines	82.9% (150)	**84.5% (153)**	181
Shipping	**84.9% (158)**	82.8% (154)	186
Bio-prospecting: gathering and use of marine life for medicinal or research purposes	**83.3% (115)**	**83.3% (115)**	138
Other (please list)	81.3% (26)	**90.6% (29)**	32
All of the above	92.8% (103)	**94.6% (105)**	111
No other issues – only focus on			

planning for marine renewable energy.	**84.2% (16)**	68.4% (13)	19
No opinion on planning in this area.	**100.0% (10)**	70.0% (7)	10
		answered question	328
		skipped question	51

8. Marine spatial planning relies on information on the location of important marine resources and human activities to determine the most appropriate locations for particular uses. The planning process often displays and analyzes this information using maps and other tools to inform the development of the plan. Since it can be mapped, this type of information is often called spatial data or spatial information. How important are the following general types of spatial information for planning?

	Not Important	Moderately Important	Important	Very Important	Extremely Important	Don't Know	Rating Average	Response Count
Habitats, plants and animals	0.9% (3)	5.6% (18)	14.0% (45)	14.3% (46)	**64.2% (206)**	0.9% (3)	4.36	321
Human uses such as fishing, aquaculture, shipping and recreation	0.3% (1)	2.2% (7)	13.7% (44)	24.5% (79)	**59.3% (191)**	0.0% (0)	4.40	322
Archaeological and cultural sites	11.3% (36)	18.9% (60)	**26.4% (84)**	22.0% (70)	20.8% (66)	0.6% (2)	3.22	318
Seafloor features such as depth, geology and sediment transport	3.4% (11)	10.0% (32)	22.2% (71)	28.1% (90)	**34.7% (111)**	1.6% (5)	3.82	320
Water column features such as waves, upwelling, water quality and temperature	3.1% (10)	10.4% (33)	22.0% (70)	24.8% (79)	**38.4% (122)**	1.3% (4)	3.86	318
Infrastructure such as cables, pipelines and ports	4.8% (15)	15.0% (47)	26.4% (83)	22.9% (72)	**29.9% (94)**	1.0% (3)	3.59	314
						Other (please list and note its importance)		42
						answered question		322
						skipped question		57

9. What best describes your relationship to marine resources in Washington? Please select up to three that are most important to you.



	Response Percent	Response Count
I make my living from activities that use marine resources or occur in marine waters	25.2%	83
I value marine resources for their cultural importance	27.9%	92
I harvest fish and shellfish recreationally	53.9%	178
I eat fish, shellfish, and other marine resources	69.1%	228
I enjoy visiting and using coastal and ocean areas	69.1%	228
I own property on a marine shoreline	13.3%	44
I value the existence of marine resources	**73.0%**	**241**
None of the above	0.6%	2
answered question		330
skipped question		49

10. In my responses, I am representing:

	Response Percent	Response Count
myself	90.4%	292
a non-governmental organization	4.0%	13
a business or industry group	1.5%	5
a government or agency	4.0%	13
Other (please specify)		20
answered question		323
skipped question		56

Appendix B - Summary of Existing State Goals and Objectives

Purpose
This exercise will be used to understand the similarities and differences among the goals and objectives of existing marine planning efforts. It will help inform potential goals and objectives for marine spatial planning that will integrate with existing authorities.

SSB 6350 requires the legislative report to: "Summarize existing goals and objectives for: Plans in Puget Sound, the Columbia river estuary, and the outer coast, including the Puget Sound action agenda; shoreline plans for shorelines around the state; management plans for state-owned aquatic lands and their associated waters statewide; and watershed and salmon recovery management plans."

Definitions and Instructions
For the purpose of this exercise, use the following definitions as a guide:

- **Goals:** highest-level statements of what the plan/law/regulation seeks to achieve – may also be conveyed as general policies.
- **Objectives:** more specific statement of what and how your plan achieves the goals.

This exercise is a high-level summary of marine-related plans in Washington. Where multiple plans are implemented at the local, regional or watershed level, the underlying authority and/or regulations may be summarized for the common policies, goals, and objectives that each individual plan must meet.

Agency Lead	Plans & Authorities summarized
Lower Columbia River Estuary Partnership	Estuary Management Plan
Dept. of Natural Resources	Land management plans for state owned aquatic lands and their associated waters statewide • Aquatic Land statutes • Strategic Plan • Aquatic Reserves Program and Rules • Harbor Areas Management • Mystery Bay Management Plan
Dept. of Fish and Wildlife	• Agency legislative mandate, mission, & goals • Marine Protected Areas policy • Magnuson-Stevens Act (PFMC/ WDFW)
Dept. of Ecology	• Shoreline plans (shoreline master programs) • Watershed management plans • Ocean management guidelines/plans and Ocean Resource Management Act • Geographic Response Plans (oil spills)
Puget Sound Partnership	Action Agenda
Salmon Recovery Office	Salmon recovery plans
State Parks	• Seashore Conservation Area • Park plans for coast, Columbia River, and Puget Sound

Goals and Objectives Summary

Title of Authority or Management Plan:
Shoreline Management Act (law); Shoreline Guidelines (rules); and Shoreline Master Programs

Geographic Scope:

☒ Statewide
☐ Puget Sound ☐ Coast ☐ Columbia River

Goals:
Manage the shorelines of the state to prevent the uncoordinated and piecemeal development of shorelines and their adjacent waters, while accommodating specific shoreline preferred uses. Special consideration for "Shorelines of Statewide Significance", which generally include the state's marine waters.

Objectives:
To achieve responsible:

- **Shoreline use and development.** After first avoiding and minimizing adverse impacts to the natural condition of shorelines, preferred uses include single family residences, ports, shoreline recreational uses, water dependent industrial and commercial developments and other developments that provide public access opportunities. To the maximum extent possible, the shorelines should be reserved for "water-oriented" uses, including "water-dependent", "water-related" and "water-enjoyment" uses.
- **Environmental protection.** Protect shoreline natural resources, including the land and its vegetation and wildlife, and the water of the state and their aquatic life against adverse effects. All allowed uses must mitigate adverse environmental impacts to the maximum extent feasible and preserve the shoreline's natural character and ecology.
- **Public access.** Master programs must include a public access element making provisions for protecting and enhancing recreational opportunities, public rights of navigation and public access to publicly owned areas.

The preferred uses for Shorelines of Statewide Significance are: recognize and protect the state wide interest over local interest; preserve the natural character of the shoreline; result in long term over short term benefit; protect the resources and ecology of the shoreline; increase public access to publicly owned shoreline areas; and increase recreational opportunities for the public in the shoreline area. Updated shoreline guidelines require local programs to achieve "no-net loss of shoreline ecological functions", based on assessment of cumulative impacts, projected use analyses, and development of a local shoreline restoration plan.

Implementation:
Local governments must update existing programs based on the state's shoreline law and rules, and the state ensures local programs consider statewide public interests. Ecology must approve local shoreline program updates before they take effect. The local governments manage shoreline uses and development and issue required shoreline permits consistent with their state-approved program policies, regulations and standards.

Goals and Objectives Summary form

Title of Authority or Management Plan:
Geographic Response Plans

Geographic Scope:

☒ Statewide
☐ Puget Sound ☐ Coast ☐ Columbia River

Goals:

Minimize the impact of oil spills on sensitive natural, cultural, and economic resources through the pre-identification of resources at risk within geographic areas and the development and testing of oil spill response strategies to safeguard them. This includes:

- Descriptions of sensitive biological, cultural, and economic resources that must be addressed to be in compliance with the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300.210(3)(i)) and the National Historic Preservation Act of 1966.
- Prioritized lists of tactical response strategies to be implemented during the initial phase of an oil spill.
- Detailed information for booming strategies that could be utilized to minimize oil impacts to predetermined sensitive resources.

GRPs are an annex to the NW Area Contingency Plan and a key element of both facility and vessel contingency plans.

Objectives:

Develop and maintain Geographic Response Plans (GRPs) for all marine waters and inland watersheds of Washington State.

Make GRPs and associated GIS data layers available to Ecology Oil Spill Responders, the response community, and the public.

Implementation:

1. Actively participate in the Regional Response Team 10/Northwest Area Committee work group on Geographic Response Plans. GRPs development/update priorities and content standardization decisions for GRPs in the Pacific Northwest (Washington, Oregon, & Idaho) are made by this workgroup. Workgroup membership includes persons from other federal and state trustee agencies, industry, and other organizations.

2. Following the priorities and decisions made by the RRT/NWAC GRP Work Group, conduct the work needed to develop new GRPs or update existing ones. This process includes public involvement, field work, data entry, and plan production. For existing GRPs, this work also

includes the gathering, review, and incorporation of lessons learned into updated versions of each plan, as appropriate.

3. Maintain an Ecology Website to host GRPs for Washington State. Since GRPs are an annex to the Northwest Area Contingency Plan, they are not Ecology publications. As a member of RRT10/NWAC, Ecology is one of many agencies actively involved in maintaining, updating, and developing GRPs.

4. Promote and expand the use of GRPs and oil spill response strategies by using geo-spatial systems (e.g. ArcReader & Coastal Atlas).

5. Manage new and existing oil spill response strategies through the use of an updated GRP database; one that increases user efficiency and meets agency security standards.

Goals and Objectives Summary

Title of Authority or Management Plan: Watershed Planning Act – Chap. 90.82 RCW

Geographic Scope:

☒ **Statewide**

☐ **Puget Sound** ☐ **Coast** ☐ **Columbia River**

Goal:

Enable the local development of watershed plans to provide Ecology and other governmental groups with information and plans to better manage water resources (quantity and quality). Primary program goals are to address one or more of the following in final plans:

- Protect existing water rights
- Maintain or augment instream flows
- Enhance, protect or restore fish habitat for state, regional and local fish recovery plans
- Guide basin development, use and priorities of current or future water supplies (future priorities for allocation, water storage, conservation, etc.)

For more detailed information on watershed planning and plan implementation status see Ecology's Watershed Planning Act website.

Objectives:

1. Local initiating governments (counties, tribes, the basin's largest city and water purveyor) endorse and sanction formation of watershed 'planning units' in specific WRIAs to prepare the local plan.

2. Planning units, supported by a local 'lead agency', are responsible to study the watershed with respect to water supply and then draft a watershed plan for formal, local adoption.

3. Lead agencies, in cooperation with other federal, state, local and tribal entities as well as with private or non-for-profit sector groups, help guide plan development and support plan implementation. The lead agency also acts as the fiduciary agent to apply for and manage planning unit administration, operations and plan implementation grants awarded from Ecology or other natural resource or commerce related agencies.

Implementation:

Using grants primarily from the Department of Ecology, planning units and lead agencies:

- **Conduct 'Watershed Assessments'** to better understand a basin's hydrology and hydrogeology, the extent of water resources conditions, fish and wildlife habitat conditions, opportunities for surface or groundwater storage, current and future growth and development patterns, trends and scenarios, and local and state governance structures related to water supply.

- **Prepare and draft a watershed plan** to be formally adopted by the county boards of commissioners that have jurisdiction in the basins under the planning activity. Plans must go through formal SEPA hearings processes, be consistent with state law and not obligate state agencies to any actions that have not been agreed upon.

- **Implement adopted watershed plans** by first preparing a Detailed Implementation Plan in the first year after plan adoption. In the 2nd and following years after adoption, carry out local or regional plan implementation activities by working with appropriate federal, state, regional, private or non-for-profit partners. Grant programs exist for five years after plan adoption for planning unit support, and grants for specific plan based projects can be applied for and awarded to lead agencies or other local, public partners during and beyond this five year period.

Since adoption of the Act in 1988, 27 distinct watershed plans have been adopted by local county boards of commissioners. These plans cover 34 of the state's 63 water resources inventory areas (WRIAs), or about 60% of the state's surface area. An additional five WRIAs have draft plans now under final development or waiting to be implemented. 22 of the 27 watershed plans addressed instream flow rule development and adoption needs.

Since watershed planning is not mandatory, the remaining 40% of the state without plans under Chap 90.82 RCW are expected to stay that way due to the existence of: low population growth; extremely arid areas primarily irrigated by federal waters projects; or, high growth/density areas with compatible local or regional supported water resources planning.

Adopted watershed plans are now being used statewide for specific statewide, regional or local efforts. For example, adopted watershed plans are being referenced or included in the following initiatives or actions:

- Columbia River Basin Water Management Program
- Puget Sound Action Agenda Implementation
- Lower Columbia Fish Recovery (and other regional fish recovery plan implementation)
- Chehalis Basin Flood Management
- Instream flow setting and rule development

Goals and Objectives Summary form

Title of Authority or Management Plan:
Ocean Resources Management Act (ORMA) & Ocean Management regulations (WAC 173-26-360)

Geographic Scope:

☐ Statewide
☐ Puget Sound ☒ Coast ☐ Columbia River

Goals:

Establish policies and guidelines for management of Washington's coastal waters, seabed and shorelines, including:

- No leasing of Washington's coast for oil or gas exploration, development or production and conserve liquid fossil fuels
- Priority for resource uses and activities that will not adversely impact renewable resources
- State participates in federal ocean and marine resource decisions to fullest extent possible to ensure consistency with state's policy.

Objectives:

Uses or activities* with adverse impacts may be permitted only, if criteria below are met or exceeded:

- There's a demonstrated significant local, state, or national need
- There's no reasonable alternative to meet the need
- There will be no long-term significant adverse impacts to coastal or marine resources/uses
- All reasonable steps to avoid and minimize adverse environmental impacts. Special protection for Columbia River, Willapa Bay, Grays Harbor, and Olympic National Park.
- All reasonable steps to avoid and minimize social and economic impacts
- Compensation provided to mitigate adverse impacts
- Plans and performance bonding for site rehabilitation

*Currently excludes recreational uses and existing commercial uses involving fishing or other renewable resources. But permitting agency may require these uses to get permits in future.

Implementation:

Ocean management regulations guide: 1) development of shoreline master programs and their local shoreline permitting activities on the coast and 2) Ecology's federal consistency determinations as part of the state's coastal program. The regulations provide a long list of general requirements and considerations for all ocean uses or activities that require a permit as well as criteria for specific uses, including: oil and gas; ocean mining; energy production (such as wave energy); ocean disposal; transportation; ocean research; and ocean salvage.

Goals and Objectives Summary form

Title of Authority or Management Plan:
WDFW's Overarching Legislative Mandate (RCW 77.04.012); Fish and Wildlife Commission Mission Statement; WDFW Goals

Geographic Scope:

☒ Statewide
☐ Puget Sound ☐ Coast ☐ Columbia River

Goals:
Preserve, protect, perpetuate, and manage the wildlife and food fish, game fish, and shellfish in state waters and offshore waters. In achieving this mandate, it is the mission of WDFW to serve Washington's citizens by protecting, restoring and enhancing fish and wildlife and their habitats, while providing sustainable fish and wildlife-related recreational and commercial opportunities.

Objectives:

- Conserve the wildlife and food fish, game fish, and shellfish resources to achieve healthy, diverse and sustainable fish and wildlife populations
- Ensure sustainable fish and wildlife opportunities for social and economic benefit, and seek to maintain the economic well-being and stability of the fishing industry in the state
- Implement processes that produce sound and professional decisions, cultivate public involvement and build public confidence and agency credibility
- Promote development and responsible use of sound, objective science to inform decision-making

Implementation:
WDFW staff meet with representatives from: the Tribes; federal, state, and local governments; stakeholders—including fishing, hunting, viewing, and conservation interests; and the general public to develop and implement management plans for priority habitats and species, fisheries, hunting, wildlife areas, and watersheds. These plans are used to guide management at the state, regional, and local levels in developing regulations, as appropriate.

Goals and Objectives Summary form

Title of Authority or Management Plan:
Magnuson-Stevens Fishery Conservation and Management Act

Geographic Scope:

☐ Statewide
☐ Puget Sound ☒ Coast ☐ Columbia River

Goals:

- To conserve and manage the fishery resources found off the coasts of the United States
- To promote the protection of essential fish habitat in the review of projects under authorities that affect or have the potential to affect such habitat
- To promote domestic and commercial recreational fishing under sound conservation and management principles
- To provide for the preparation and implementation of fishery management plans which will achieve, on a continuing basis, the optimum yield from each fishery
- To establish Regional Fishery Management Councils to exercise sound judgment in the stewardship of fishery resources, and
- To encourage the development by the fishing industry of fisheries that are currently underused.

Objectives:
To achieve the goals stated above, any fishery management plan prepared, and any regulation promulgated to implement such plan, shall be consistent with the following national standards for fishery conservation and management:

1. Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield (OY) from each fishery for the U.S. fishing industry.

2. Conservation and management measures shall be based upon the best scientific information available.

3. To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.

4. Conservation and management measures shall not discriminate between residents of different states. If it becomes necessary to allocate or assign fishing privileges among various U.S. fishermen, such allocation shall be:
    a. Fair and equitable to all such fishermen.
    b. Reasonably calculated to promote conservation.
    c. Carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

5. Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose.

6. Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.

7. Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

8. Conservation and management measures shall, consistent with the conservation requirements of the Magnuson-Stevens Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities by utilizing economic and social data that are based upon the best scientific information available in order to:
    a. Provide for the sustained participation of such communities; and
    b. To the extent practicable, minimize adverse economic impacts on such communities.

9. Conservation and management measures shall, to the extent practicable:
    a. Minimize bycatch; and
    b. To the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

10. Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.

Implementation:
For Pacific Ocean waters, the Pacific Fishery Management Council, has adopted fishery management plans (FMPs) for some salmon species (Chinook, coho, and pink), groundfish (over 90 species, including all rockfish, but excluding Pacific halibut), highly migratory species (e.g., albacore tuna), and coastal pelagic species (e.g., sardines). Each of these FMPs has specific fishery goals and objectives, which are consistent with the national standards listed above. Because the FMPs are species-specific and cover those species throughout their range, these FMPs also apply to state coastal waters from the shoreline out to three miles offshore. As such, state-managed fisheries targeting these species must be consistent with the FMP; state regulations can be more restrictive than federal regulations, but cannot be more liberal. Other state-managed fisheries that encounter these species as bycatch must account for the catches of these species.

In addition, the Pacific Council has just initiated a process to develop an Ecosystem Management Plan. The plan is in the scoping phase and is expected to be completed over the next few years. The Pacific Council has management Teams for each of its FMPs comprised of representatives from the tribal, federal, and state agencies, and advisory groups comprised of stakeholders. The Washington Department of Fish and Wildlife has representatives on the Council's Management Teams for salmon, groundfish, highly migratory species, and coastal pelagic species, the Ecosystem Plan Development Team, the Habitat Committee, and the Enforcement Consultants.

State Jurisdiction

The Magnuson-Stevens Act also provides the authority to a state to regulate a fishing vessel outside the boundaries of the state into the Exclusive Economic Zone in the following circumstances:

1. The vessel is registered under the law of that state, and (a) there is no FMP or federal fishing regulations for the fishery in which the vessel is operating; or (b) the state's laws and regulations are consistent with the FMP and the federal regulations.

2. The FMP for the fishery in which the fishing vessel is operating delegates management of the fishery to the state and the state's laws are consistent with the FMP.

There are many state-managed coastal fisheries that meet these criteria, including the sardine purse seine fishery, albacore tuna troll fishery, salmon troll fishery, pink shrimp trawl fishery, spot shrimp pot fishery, and the hagfish fishery.

Coastal Dungeness Crab

Since 1996, under the Magnuson-Stevens Act, the Secretary of Commerce delegated the authority to the States of Washington, Oregon, and California to regulate the Dungeness crab fishery in federal waters—this interim authority expires on September 30, 2016. Under this authority, each of those states may adopt regulations for the fishing and processing of Dungeness crab; those state regulations shall apply equally to non-tribal vessels engaged in the fishery in the Exclusive Economic Zone adjacent to that state regardless of which state that vessel is permitted under. While these regulations do not apply to tribal vessels, they include the regulations necessary to implement tribal treaty rights under *U.S. v. Washington*.

Goals and Objectives Summary form

Title of Authority or Management Plan:
WDFW legislative mandate (RCW 77.04.012) and Fish and Wildlife Commission Policy: C-3013 regarding Marine Protected Areas

Geographic Scope:

☒ Statewide
☐ Puget Sound ☐ Coast ☐ Columbia River

Goals:
To use marine protected areas as one of the department's working tools for resource protection and management.

Objectives:

- Preserve, protect, perpetuate and manage the living resources of the state
- Provide refuges for stocks, sub-stocks, or populations
- Protect unique or important habitats or species
- Foster stewardship of unique or important resources or habitats
- Provide research and education areas
- Provide baseline areas or reference sites
- Provide non-consumptive recreational opportunities

All sites will not meet all objectives, but many sites will meet multiple objectives.

Implementation:
In 2009, WDFW led a coordinated effort, which included representatives from tribal, federal, state, and local governments and marine resource committees, and non-governmental organizations, to develop a report to the Legislature on Marine Protected Areas (MPAs), which included an inventory of existing sites, a description of the management of those sites, and recommendations for the future consideration of MPAs. Separate from the working group's effort, WDFW has partnered with multiple entities, including the University of Washington, cities of Des Moines, Edmonds, and Tacoma, The Nature Conservancy, and the Parks and Recreation Commission, to establish 22 MPAs in the greater Puget Sound area. The harvesting public, primarily recreational fishing groups and divers, provide much of the information used to determine the size, boundaries, and harvest activities that will be allowed to continue within each MPA.

Goals and Objectives Summary form

Title of Authority or Management Plan:
Aquatic Lands Statutes (RCW 79.105 – 79.145), and rules

Geographic Scope:

☒ Statewide
☐ Puget Sound ☐ Coast ☐ Columbia River

Goals:
The Aquatic Lands Statutes (RCW 79.105 through 79.145) were established by the legislature through the passage of the Aquatic Lands Act in 1984. The Act found that "…state-owned aquatic lands are a finite natural resource of great value and an irreplaceable public heritage." The statutes were created to "…articulate a management philosophy to guide the exercise of the state's ownership interest and the exercise of the department's management authority, and to establish standards for determining equitable and predictable lease rates for users of state-owned aquatic lands." The management philosophy is to ensure a balance of benefits for the citizens of Washington from the use of aquatic lands. These benefits include:

- Commerce and Navigation
- Public Use and Access
- Use of Renewable Resources
- Protection of the Environment (the health of these aquatic lands)
- Generate an Economic Return to Citizens (when appropriate)

Objectives:
Management of state-owned aquatic lands shall be consistent with the statutory management philosophy. This philosophy includes preserving and enhancing water-dependent uses, which are favored over non water-dependent uses, and managing Harbor Areas (see separate summary form) to facilitate navigation and commerce near municipalities. The natural and habitat values of state-owned lands must be considered, and lands with significant values may be withdrawn from leasing, or protection of those values may be required as part of leases.

Implementation:
This authority applies to 2.6 million acres of state-owned aquatic lands, both fresh and saltwater. Implementation is primarily through leases of state-owned aquatic lands for marinas, piers, docks, aquaculture, and other uses; implementation of the aquatic reserve program (see separate summary form), and restoration projects. DNR's authority also includes the stewardship and management of resources attached to, or embedded in aquatic lands (for example, seaweed, shellfish, sand, minerals and oil), and man-made structures in the water and air space above state aquatic lands.

Goals and Objectives Summary form

Title of Authority or Management Plan:
DNR Strategic Plan 2010-2014, April 2010

Geographic Scope:

☒ Statewide
☐ Puget Sound ☐ Coast ☐ Columbia River

Goals:
The purpose of the plan is to guide DNR in sustainably managing our state lands and protecting the public's natural resources in the face of a struggling economy and a changing environment.

Objectives:
Six natural resource goals with corresponding objectives form the basis of the plan. The goals and objectives that apply to DNR's management of aquatic lands are:

- Deliver on our promise to manage state lands sustainably
    - Sustainably manage aquatic lands by completing and implementing the Aquatic Habitat Conservation Plan, improving the aquatic leasing program, and preserving aquatic lands by acquiring strategic land blocks and targeting priority habitat for conservation and restoration
    - Protect at-risk ecosystems through a variety of new and existing tools
- Clean up and restore Puget Sound
    - Prioritize and implement DNR aquatic and upland actions that contribute to the recovery of Puget Sound by 2020
    - Participate collaboratively in regional efforts, including Puget Sound Partnership activities, the Puget Sound Action Agenda, and a proposed jobs program
- Develop renewable energy resources on state lands, address the challenges of climate change, and create renewable energy jobs
    - Reduce DNR's energy footprint through the most cost-effective strategies possible
    - Work with partners to develop an ecologically sustainable renewable energy program for state lands incorporating diverse renewable energy sources such as wind, biomass, solar, wave/tidal/geothermal, and others as they emerge
    - Incorporate adaptation to climate change in all affected programs and activities

Implementation:
The Strategic Plan is being implemented through the following:

- Development of annual budgets and work plans
- Business processes
  Development of policies, programs and procedures for the management of state-owned aquatic lands
- Interactions with stakeholders and the public

Goals and Objectives Summary form

Title of Authority or Management Plan:
Aquatic Reserve Program; Aquatic Reserve rules; Implementation guidance; Aquatic Reserve Plans

Geographic Scope:

☒ Statewide

☐ Puget Sound ☐ Coast ☐ Columbia River

Goals:
Manage existing and future uses of state-owned aquatic lands to ensure environmental protection and preserve and enhance designated state-owned aquatic lands in order to provide direct and indirect benefits to aquatic resources in Washington State.

Objectives:
The overall goal is achieved through the designation of three classes of reserves: environmental, scientific, and educational.

Environmental aquatic reserves must be areas of regional or statewide environmental importance; sites established for the continuance of environmental baseline monitoring; or areas of historical, geological, or biological interest that require special protective management. Objectives of environmental reserves include:

- Establish aquatic habitats for conservation of ecological function and services or historical significance.
- Restore important degraded habitats to better functioning conditions.

Scientific aquatic reserves are sites set aside for scientific research projects. These areas may contain unusually rich plant and animal communities suitable for continued scientific observation. Objectives of scientific reserves include:

- Provide sites that may be manipulated for the benefit of scientific research.
- Provide reference sites to measure the effectiveness of environmental protection.
- Manage sites with unusually rich plant and animal communities. Objectives of

Educational aquatic reserves are accessible areas of aquatic lands typical of specific native habitat types that are protected as sites suitable for education projects.

- Keep sites available for environmental education opportunities.
- Educate people on the value of aquatic habitats to help ensure environmental protection.

Implementation:
Under its adopted implementation guidance for the aquatic reserve program, DNR runs a biennial application cycle to accept nominations for and evaluate a proposed aquatic reserve site, to make changes to an existing reserve's boundaries, or to de-list an existing aquatic reserve. Members of the public, non-governmental organizations, Tribes, and local, state, and federal government entities, as well as DNR, are eligible to submit proposals to DNR to establish an aquatic reserve. The proposal undergoes review by a technical advisory committee, and then a site-specific management plan is developed in coordination with the community. The draft management plan is disseminated for

public review in accordance with SEPA procedures, and then the Commissioner of Public Lands formally establishes a reserve through the issuance of a "Commissioner's Order" withdrawing the lands from general leasing, designating them as an aquatic reserve, references the management plan, and includes other specific lease limitations that have been established for the reserve.

Management plans have been developed for the following reserves: Cypress Island, Maury Island, Fidalgo Bay, and Cherry Point (draft). Plans are in development for the proposed Protection Island and Smith/Minor Island Aquatic Reserves.

Goals and Objectives Summary form

Title of Authority or Management Plan:
Harbor Areas: state constitution, laws, and rules

Geographic Scope:

- ☒ Statewide
- ☐ Puget Sound
- ☐ Coast
- ☐ Columbia River

Goals:
To meet the expanding need for growth, economic development, and navigation, harbor lines in the navigable waters of all harbors, bays, inlets, and estuaries of the state shall be established wherever such navigable waters lie within or in front of the corporate limits of a city, or within one mile of either side. The harbor areas within these lines shall be reserved exclusively for landings, wharves, streets and other structures or uses that support navigation and commerce.

Objectives:
Promote full development of all existing suitable harbor areas for use by water-dependent commerce, and prohibit those uses inconsistent with navigation and commerce.

Implementation:
The Board of Natural Resources, acting as the Harbor Lines Commissions, is authorized to adjust harbor lines. DNR is responsible for authorizing existing and future uses of Harbor Area DNR is to encourage local government, state and federal agencies to cooperate in planning for the following statewide harbor management needs:
(a) Reserve adequate and appropriate space within the jurisdiction to serve foreseeable navigation and commerce development needs
(b) Coordinate plans for aquatic land and upland development so that areas reserved for navigation and commerce will be usable in the future
(c) Identify areas where interim uses may be allowed
(d) Identify needed changes in harbor lines
(e) Minimize the environmental impacts of navigation and commerce development, and.
(f) Prevent existing and future interim uses in harbor areas from lowering the suitability of harbor areas for navigation and commerce development.

Goals and Objectives Summary form

Title of Authority or Management Plan:
Mystery Bay Management Plan, April 2010, developed by local, state, and federal agencies; four treaty tribes; commercial shellfish interests; and a local community organization, facilitated by the Office of Regulatory Assistance

Geographic Scope:

- ☐ Statewide
- ☒ Puget Sound
- ☐ Coast
- ☐ Columbia River

Goals:

The goal of the plan is to manage boater usage in Mystery Bay a manner that ensures year round harvest of commercial shellfish while balancing that interest with the legitimate use of the bay for public recreation.

Objectives:
The objective of the plan is to document the mutual agreement of the stakeholder group and the actions to be taken to help resolve multiple use conflicts in Mystery Bay.

Implementation:
The plan will be implemented by the stakeholder group under their existing legal frameworks and regulatory authorities. DNR, in its proprietary role as managers of state-owned aquatic lands, has a primary role in implementation:

- Permitting and managing future boat moorage to ensure that commercial shellfish beds do not have to be closed
- Removing buoys that do not have permits from Jefferson County and are unauthorized by DNR
- Providing a method of exempting the boats (and mooring buoy) owned by shoreline property owners toward the NSSP threshold level for marinas
- Managing transient boaters through a voluntary "No Anchor Zone" and developing information that directs transient boaters to dock or moor in Mystery Bay State Park
- Establishing a long-term boat monitoring plan to assure that the numbers and densities of boats do not exceed the marina threshold
- Developing adaptive management strategies to address changes in the bay and its usage as they occur

Goals and Objectives Summary

Title of Authority or Management Plan:
Federally approved salmon recovery plans under Section 4(f) of the Endangered Species Act (ESA), consistent with Chapter 77.85.030 and 77.85.150 RCW:

- Puget Sound Chinook Recovery Plan
- Hood Canal and Strait of Juan de Fuca Summer Chum Recovery Plan
- Recovery Plan for Lake Ozette Sockeye
- Lower Columbia Salmon Recovery and Fish and Wildlife Sub-basin Plan
- Columbia River Estuary Recovery Plan Module

Geographic Scope:

☐ Statewide
☒ Puget Sound ☒ Coast ☒ Columbia River

Goals:
Achieve federally-approved, science-based criteria for viable populations of naturally spawning salmon, including salmon abundance, productivity, spatial distribution, and diversity; thereby supporting consideration of de-listing these salmon populations as threatened or endangered under the ESA. This goal in each salmon recovery plan is incorporated within broader statewide and regional goals of achieving healthy and harvestable populations of salmon and improving the habitat upon which the fish rely.

Objectives:
The common objectives or elements of these recovery plans include:

- assessing the viability of listed salmon and steelhead populations at the time of plan development in relation to the applicable viability criteria;
- establishing specific goals for each listed population identified in each Evolutionarily Significant Unit for salmon and Distinct Population Segments for steelhead within each regional planning area, consistent with federal viability criteria;
- identifying and assessing the factors affecting the status of populations and the ability to achieve viability criteria and goals;
- identifying strategies and actions to address the factors that are affecting the populations and the public or private entities that have responsibilities to implement such strategies and actions; and
- identifying the strategies and programs needed to monitor and evaluate recovery plan implementation and effectiveness and then, based upon monitoring and evaluation information, to adaptively manage ongoing plan refinement or revision.

Implementation:
Implementation of salmon recovery plans within Washington is coordinated by regional salmon recovery organizations. Implementation of the Puget Sound Chinook Recovery Plan is coordinated by the Puget Sound Partnership as a major component of implementing the Puget Sound Action Agenda. Implementation of the Hood Canal and Strait of Juan de Fuca Summer Chum Recovery Plan is coordinated by the Hood Canal Coordinating Council. Implementation

of the Lower Columbia Salmon Recovery and Fish and Wildlife Sub-basin Plan is coordinated by the Lower Columbia Fish Recovery Board (LCFRB). The LCFRB also coordinates with the Lower Columbia River Estuary Partnership to implement the Columbia River Estuary Recovery Plan Module. Implementation of the Recovery Plan for Lake Ozette Sockeye is coordinated by a local Lake Ozette Sockeye Recovery Steering Committee with assistance from the North Pacific Coast Lead Entity and the Washington Coast Sustainable Salmon Partnership.

For each of these plans, the responsible coordinating groups works collaboratively with their federal, state, tribal, and local government partners and other stakeholders to promote and coordinate plan implementation and to track and evaluate progress toward the plan goals for recovering ESA-listed salmon populations.

Goals and Objectives Summary form

Title of Authority or Management Plan:
Seashore Conservation Area (SCA) - Established by the Washington State Legislature the in 1967 (RCW79A.05.600)

Geographic Scope:

☐ Statewide
☐ Puget Sound ☒ Coast ☐ Columbia River

Goals:
Pursuant to RCW 79A.05.600 *". . . increasing public pressure makes it necessary that the state dedicate the use of the ocean beaches (i.e. the beaches bounding the Pacific Ocean from the Straits of Juan de Fuca to Cape Disappointment at the mouth of the Columbia River) to public recreation and to provide certain recreation and sanitary facilities."*

Objectives:
The Parks and Recreation Commission approved objectives for the SCA, especially as they pertain to ocean beaches, are to *". . . provide locations for people to practice leisure time pursuits; to;*

(1) Acquire key ocean beach areas including lands west of the line of 1889;
(2) Acquire, one per biennium, a right-of-way for public recreational access to state-owned tidelands and beaches within the state's Seashore Conservation Area . . . ;
(3) Develop two ocean beach access areas per biennium;
(4) Develop, one per biennium, a major saltwater, shoreland, or upland park providing public access to state-owned tidelands and beaches in the south Pacific County Coast . . .

Implementation:
Since 1968, approximately every ten years, State Parks oversees the survey of the Seashore Conservation Line (SCL) with funds allocated by the Legislature. Public recreation and access to the ocean beaches is encouraged and supported.

Goals and Objectives Summary form

Title of Authority or Management Plan:
Washington State Park Classification and Management Planning (CAMP) and State Park Master Facility Plans conducted pursuant to WAC 352-16.

Geographic Scope:

☐ Statewide
☒ Puget Sound ☒ Coast ☒ Columbia River

Goals:
Provide superior recreational and learning opportunities for visitors, while protecting our state's natural areas and cultural assets consistent with the *Centennial 2013 Vision*.

Objectives:
Create land-use plans for all state parks. The land-use plans will guide the way state parks are developed and used in the future.

Implementation:
All state parks undergo land-use planning consistent with WAC 352-16 and the Classification and Management Planning (CAMP) public process.

Goals and Objectives Summary form

Title of Authority or Management Plan:

Puget Sound Partnership, 2020 Action Agenda

Geographic Scope:

☐ Statewide
☒ Puget Sound ☐ Coast ☐ Columbia River

Goals:

Statutory Goals: RCW 90.71.300 (1)

a. A healthy human population supported by a healthy Puget Sound that is not threatened by changes in the ecosystem
b. A quality of human life that is sustained by a functioning Puget Sound ecosystem
c. Healthy and sustaining populations of native species in Puget Sound, including a robust food web
d. A healthy Puget Sound where freshwater, estuary, nearshore, marine, and upland habitats are protected, restored, and sustained
e. An ecosystem that is supported by groundwater levels as well as river and stream flow levels sufficient to sustain people, fish, and wildlife, and the natural functions of the environment
f. Fresh and marine waters and sediments of a sufficient quality so that the waters in the region are safe for drinking, swimming, shellfish harvest and consumption, and other human uses and enjoyment, and are not harmful to the native marine mammals, fish, birds, and shellfish of the region.

Objectives:

Statutory Objectives: RCW 90.71.300 (2)

a. Protect existing habitat and prevent further losses
b. Restore habitat functions and values
c. Significantly reduce toxics entering Puget Sound fresh and marine waters
d. Significantly reduce nutrients and pathogens entering Puget Sound fresh and marine waters
e. Improve water quality and habitat by managing storm water runoff
f. Provide water for people, fish and wildlife, and the environment
g. Protect ecosystem biodiversity and recover imperiled species
h. Build and sustain the capacity for action

The 2020 Action Agenda has four strategic priorities with associated high-level strategies and near term actions.

Priority A: Protect intact ecosystem processes, structures, and functions

- **A.1** Focus growth away from ecologically important and sensitive areas by encouraging dense, compact cities, vital rural communities, and protected areas that support the ecosystem Sound-wide.
- **A.2** Permanently protect the intact areas of the Puget Sound ecosystem that still function well.
- **A.3** Protect and conserve freshwater resources to increase and sustain water availability for instream and human uses.
- **A.4** Support long-term protection and stewardship of working farms, forests, and shellfish farms to help maintain ecosystem function, sustain quality of life, and improve the viability of rural communities.
- **A.5** Prevent and rapidly respond to the introduction of invasive species.

Priority B: Restore ecosystem processes, structures, and functions

- **B.1** Implement and maintain priority ecosystem restoration projects for marine, marine nearshore, estuary, freshwater, riparian, and upland areas.
- **B.2** Revitalize waterfront communities while enhancing marine and freshwater shoreline ecosystem processes.
- **B.3** Support and implement stewardship incentive programs to increase the ability of private landowners to undertake and maintain restoration projects that improve ecosystem processes.

Priority C: Reduce the sources of water pollution

- **C.1** Prevent pollutants from being introduced into the Puget Sound ecosystem to decrease the loadings from toxics, nutrients, and pathogens.
- **C.2** Use a comprehensive, integrated approach to managing urban stormwater and rural surface water runoff to reduce stormwater volumes and pollutant loadings.
- **C.3** Prioritize and complete upgrades to wastewater treatment facilities to reduce pollutant loading.
- **C.4** Establish and maintain locally coordinated, effective on-site sewage system management to reduce pollutant loading to vulnerable surface and ground waters.
- **C.5** Prioritize and continue to implement toxic cleanup programs for contaminated waterways and sediments.
- **C.6** Continue to monitor swimming beaches as well as conduct shellfish and fish advisory programs to reduce human exposure to health hazards.

Priority D: Work effectively and efficiently together on priority actions

- **D.1** Conduct planning, implementation, and decision-making in an integrated way and with an ecosystem perspective.
- **D.2** Support, develop, and integrate climate change programs, including mitigation and adaptation strategies to improve local and regional readiness for anticipated changes.

D.3 Build and sustain long-term capacity of partners to effectively and efficiently implement the Action Agenda.

D.4 Reform the environmental regulatory system to protect habitat at an ecosystem scale.

D.5 Improve compliance with rules and regulations to increase the likelihood of achieving ecosystem outcomes.

Priority E: Build an implementation, monitoring, and accountability management system

E.1 Build and use a performance management system to improve accountability for ecosystem outcomes, on-the-ground results, and implementation of actions.

E.2 Provide sufficient, stable funding and ensure funding is focused on priority actions to increase efficiency and effectiveness.

E.3 Continually improve the scientific basis for management actions in the Puget Sound through a comprehensive and prioritized regional science program.

E.4 Use outreach and education to foster long-term changes in public attitudes and behavior.

Implementation:

As part of the Action Agenda creation, near-term actions for priorities A through C were ranked. These lists were created by evaluating ecological benefits and other factors such as cost, readiness, and likelihood of effectiveness of each action. Ecological benefits were evaluated using criteria based on the ecosystem management principles in the Action Agenda. Equal weight was given to each of the following criteria:

- Priority threats: Staff evaluated the extent to which each near-term action would address an identified threat to the ecosystem. Actions that address the alteration of habitat or the input of pollutants were ranked higher than actions that did not address these threats. Actions that address more than one threat were given higher priority.
- Strategic priorities: Actions were evaluated to determine the extent to which they would employ one of the strategic priorities established by the Leadership Council. Equal weight was given to each priority and actions that address more than one priority were ranked proportionally higher.
- Magnitude of benefit: Actions that had the potential to make the greatest contribution to the achievement of ecosystem goals were ranked higher than others. Both potential effectiveness and geographic extent of expected benefit contributed to this ranking.
- Ecosystem goals: Actions were ranked according to how well they addressed each ecosystem goal. Actions that address multiple goals were ranked proportionally higher. Special consideration was also given to near-term actions that would contribute to the human well-being goal by protecting or creating employment in the region.

- Urgency and irreversibility: Actions that address imminent threats to ecosystem health, especially when the potential damage would be costly or impossible to reverse, were given proportionally higher rankings than other actions.
- Implementation criteria: Key project factors were considered, such as: cost; probability to achieve intended results; readiness to implement; and the ability to create near-term jobs.

Draft prioritized lists were presented to the public at the Ecosystem Coordination Board and the Leadership Council meetings immediately after the Draft Action Agenda was made available for review. Many comments were received from the public regarding the ranked near-term actions. Staff reconsidered the ranking of actions that were identified as concerns in public comments. Near-term actions for priorities D and E were not ranked. Actions for priority D were considered too diverse for ranking to be of value. Actions for priority E fall under the responsibility of the Partnership and are planned for near-term implementation.

Roles and responsibilities: Action Agenda Table 4-2 outlines the specific expectations, roles, and responsibilities of entities responsible for implementation of near-term actions. The table is a summary and may not include all of the important partners; however, all efforts to successfully implement the Action Agenda are encouraged and welcome. Over time, the roles and responsibilities for implementation can be further defined.

Implementation plans: Once it is clear which actions will be funded, the Partnership will develop detailed implementation plans for all funded items. In addition to responsibility and budget information presented in Table 4-2, implementation plans will include a scope of work with key steps, associated schedules, and performance measures. The performance measures will track both the implementation of actions (outputs) and the initial expected outcomes (ecosystem impacts or results). A narrative rationale will support the selected performance measures.

For actions that are not funded, the Partnership will work with lead and partner implementers to fit the actions into the ongoing operations of one or more partner entities. For actions that cannot be absorbed into an existing workload, steps will be identified to prepare the action for implementation once resources are available, including identifying possible sources of funding.

Goals and Objectives Summary
Lower Columbia River Estuary Partnership

Title of Authority or Management Plan:
The Lower Columbia River Estuary Partnership is one of 28 estuaries of national significance as defined and regulated in the Estuaries and Clean Water Act of 2000 (P.L. 106-457, Title III) under Section 320 of the Clean Water Act through Amendments in 1987.

Each NEP must use a highly collaborative process to develop and implement a Comprehensive Conservation and Management Plan as its governing plan. The Estuary Partnership CCMP was completed in 1999.

Geographic Scope:

☐ Statewide
☐ Puget Sound ☐ Coast ☒ Columbia River

Goals:

The mission of the Lower Columbia River Estuary Partnership is to preserve and enhance the water quality of the estuary to support its biological and human communities.

The guiding principle of the Estuary Partnership is that the health of the river will not significantly improve if new problems continually emerge even as old ones are solved.

The **Estuary Partnership** was established in 1995 by the governors of Washington and Oregon and the US EPA to provide a coordinated, regional voice to improve ecological conditions of the lower river. The lower Columbia River is an "Estuary of National Significance," one of only 28 in the nation. Using a watershed ecosystem based approach, the Estuary Partnership works across political boundaries with 28 cities, nine counties, 38 school districts and the states of Oregon and Washington over an area that stretches 146 miles from Bonneville Dam to the Pacific Ocean. It is the lead two-state entity working in partnership with the private sector and government agencies focused on the ecosystem. The Estuary Partnership Board of Directors represents the diverse public and private interests and geography of the lower river.

Objectives:

- Protect the ecosystem and species- restore 19,000 acres of wetlands and habitat by 2014 ; and improve land use practices to protect ecosystems by reducing runoff of toxic and conventional pollutants into waterways.
- Reduce toxic and conventional pollution- conduct long term monitoring and work with partners to eliminate persistent bioaccumulative toxics, bring water bodies up to water quality standards, reduce hydrocarbon and heavy metal discharges and reduce bacterial contamination.
- Provide education & information programs to all citizens, including children's programs and volunteer opportunities; implement and build federal, state, local, public and private government heightened coordination.

Implementation:
The Estuary Partnership has been implementing its Comprehensive Conservation and Management Plan since its completion in 1999. EPA and the Governors adopted the plan and committed to supporting its implementation.

The Estuary Partnership works in the Oregon Counties of Multnomah; Clackamas, Washington, Yamhill, Columbia and Clatsop and Washington Counties of Clark, Skamania, Cowlitz, Wahkiakum, and Pacific.

This includes the Oregon cities: Portland, Gresham, Troutdale, Beaverton, Corbett, Scappoose, St. Helens, Columbia City, Rainier, Clatskanie, Knappa, Warrenton, and Astoria and the Washington Cities of Camas, Washougal, Vancouver, Ridgefield, Kalama, Kelso, Longview, Cathlamet, Skamokawa, and Ilwaco.

Appendix C – Existing Ecosystem Indicators

Puget Sound Indicators

1) **Funding for the Sound** – Federal, state and local funding allocated to the Action Agenda
2) **Action Agenda Engagement** - % of Action Agenda items actively being addressed
3) **Puget Sound Trends Index** - See Puget Sound Regional Council website
4) **Personal Vehicle Miles Traveled** - Per capita vehicle miles traveled
5) **Commercial Fisheries Harvest (tribal and non-tribal)** - Annual wild harvest (pounds) of tribal and non-tribal commercial fisheries (salmon, crab, shellfish, ground fish, shrimp) in Puget Sound (wild)
6) **Swimming Beaches** - Percent of core beaches meeting water quality standards during swim season (allowing one exceedence)
7) **Shellfish Beds Restored** - Number of acres of shellfish bed growing areas impacted by degraded or declining water quality where harvest restrictions have been lifted
8) **Number of recreational fishing permits sold annually in Puget Sound** - Recreational fishing permit sales
9) **Marine Water Quality** - Marine Water Quality Index
10) **Freshwater Quality** - Freshwater Water Quality Index
11) **Water Availability** - Percent of monitored stream flows below critical levels
12) **Salmon** - Fish Abundance; Wild Chinook salmon population counts with distribution (not hatchery salmon)
13) **Orcas** - Orcas abundance; Southern Resident killer whale population trends
14) **Pacific Herring** – Pacific Herring spawning biomass - status & trends
15) **Terrestrial Bird Species** - Marbled murrelets and other birds abundance; breeding bird counts for composite (index) for a variety of species or selected other terrestrial species Birds/km2 sampled x area
16) **Shoreline Armoring** - %s of freshwater and marine water shorelines armored
17) **Eel Grass** - Areal extent (number of acres) of eelgrass in greater Puget Sound
18) **Toxics in fish** - As relates to pacific herring, English sole and salmon
19) **Toxics in sediment** - Health of sediments with respect to concentrations of toxics and abundance and structure of living organisms
20) **Land Use/Land Cover** - % land use/land cover; % impervious surface; Extent and condition of ecological systems (land cover by type)

Lower Columbia River Estuary Program's "Dashboard Indicators"

- Funding for the Lower Columbia River – Federal, State, regional, local, public and private investment in Comprehensive Conservation and Management Plan related actions.
- Number of Estuary Partnership Comprehensive Conservation and Management Plan actions being implemented?
- Change in levels of contaminants in sediment and water. Trends of toxic contaminants in fish tissue, river otter, osprey and eagle eggshells

- Number of Lower Columbia River water bodies on 303(d) list - in general or for contaminants of concern.
- Changes in amount of impervious surface and tree and forest cover.
- Breath of Estuary Partnership science-based programs to children
- Breath of Estuary Partnership hands on programs for students and adults throughout the study area
- Number of teachers provided with training or resources for environ ed resources
- Net change in restored, protected and conserved habitat. Net change due to restoration and compensatory mitigation project area + sum of number of acres of completed protection and conservation project areas – acres lost
- List of invasive species found in the estuary and lower river.
    - Number of newly invasive species introduced; Number of invasive species controlled
- Number of estuarine and estuarine-linked species listed under federal or state ESA programs.
    - Population trends of native estuarine and estuarine-linked species of concern
    - Population trends of invasive species of concern

Potential Indicators for Washington's Coast

I. Marine Species (Biodiversity) and Habitat

- Key indicator species: Salmon, pelagic stocks, highly migratory species, ground fish. Indicate status and trends.[55]
- ESA listed species: salmon, ground fish, marbled murrelet. Status and trends, measured against recovery plan goal.[56]
- Shellfish. Status and trends.[57]
- Marine birds. Status and trends.[58]
- By-catch. Key species, compared to target number.[59]
- Coastal habitat: Acres of marine wetlands lost.[60]
- Marine protected areas: Acres in no access, impact, take areas.[61]

II. Coastal and Marine Waters Condition

[55] Pacific Fisheries Management Council.
[56] NOAA and U.S. Fish and Wildlife Service.
[57] Department of Natural Resources, Department of Fish and Wildlife, (WDFW), and Department of Health.
[58] WDFW.
[59] WDFW.
[60] Primary indicator data taken from National Coastal Condition Report III; Chapter 6: West Coast Coastal Condition, December 2008. EPA, in coordination with NOAA, USGS, USFWS, and states (California, Oregon, Washington). Referenced as NCCR III. Also, see EPA's Biological Indicators of Watershed Health: Marine/Tidal Bioindicators (e.g., phytoplankton, zooplankton; benthos; submerged aquatic vegetation, and fish); Pacific Northwest Coastal Ecosystems Regional Study; IOC 6th Consultative (March 2004, Paris); and Appendix 4, Summary of Monitoring Practices in Marine Protected Areas, in Marine Protected Areas in Washington, December 2009.
[61] WDFW Marine Protected Areas report.

- Water quality (four metrics)[62]
- Sediment (3 metrics)[63]
- Benthic loss[64]
- Fish tissue contaminants[65]
- Invasive species (number of species, by square miles of contamination)[66]
- Fish consumption advisories[67]
- Beach advisories and closures[68]
- Harmful algal blooms (number of events)[69]
- Marine debris (tons collected)[70]

[62] NCCR, III
[63] NCCR, III
[64] NCCR, III
[65] NCCR, III
[66] Washington Invasive Species Council
[67] NCCR, III
[68] NCCR, III
[69] WDFW, DOH
[70] Local sources

Appendix D – Potential Key Memorandum of Agreement Elements for MSP on Washington Coast (see Recommendation 18)

1. Who

- Coastal Tribes
- Olympic Coast National Marine Sanctuary
- Pacific Fishery Management Council
- NOAA
- Navy
- EPA
- County representation
- MRC representation
- State of Washington (Ecology, Health, Parks, DNR, WDFW)
- Washington Sea Grant

2. Tasks

- Formally adopt vision, goals and objectives
- Oversee development and adoption of indicators
- Oversee implementation of state ocean plan; update state plan in 2015 and every five years thereafter; and establish performance measures: what will be done, was it done, was it effective
- Subject to funding, oversee development of CMSP for Washington's coast including data inventory, preparing options, conducting public outreach; and development and adoption of a spatial plan.
- Subject to funding and available technical expertise, provide Biennial Report on the state of Washington's coast.
- Integrate or coordinate with federal agencies, PFMC, West Coast Governors' Agreement, Washington's State Ocean Caucus, and the government of British Columbia

Appendix E – Spatial Data Working Session Summary

Excerpt from summary report of July 13, 2010

Key Findings and Recommendations

The overall goal established for this meeting was to provide input to the Washington marine spatial planning report and recommendations on spatial data. Two specific objectives of the meeting were to:

1. Understand key types of spatial data needed to support marine spatial planning in Washington, including addressing priorities for adjacent federal waters.
2. Understand barriers and potential solutions to data accessibility and sharing to support MSP efforts in Washington.

The following are some of the key findings and recommendations from the participants in this working session on spatial data.

Priority data needs

Participants selected the following priority types of spatial data needed to support marine spatial planning in Washington (for full list of data types, see detailed notes on page 16):

- Bathymetry-topography
- Fisheries
- Habitats
- Conservation/regulated areas
- Water quality
- Oceanographic processes
- Marine fish
- Geomorphic characterization
- Endangered species
- Ownership

In particular, top votes across the teams went to the following data types: Bathymetry-topography, Fisheries, Habitats, and Conservation/regulated areas. However, many participants acknowledged that having the full list of data would be most helpful to support marine spatial planning.

Additional data needs to aid marine spatial planning

The groups suggested several additional data types to the draft list provided at the workshop and provided more details for some of the existing types of spatial data. Some of the major additional data types or refinements included:

- Water quality: pathogens, Harmful Algal Blooms, dissolved oxygen, acidification, turbidity, temperature, salinity, and areas with significant water quality problems
- Climate shifts
- Hydrography: freshwater quantity
- Geology: geomorphic characterizations (nearshore-shoreline), sub-surface geology, sediment quality and depth
- Habitats: mitigation areas
- Restoration sites: current and future

- Marine fish habitat and fisheries: forage fish spawning habitat, larval assemblage and dispersal data
- Biological elements: marine invertebrates, planktonic communities, invasive Species
- Acoustics (noise/sound)
- Human Uses: research activities, wildlife watching, self-defined marine traffic routes, boater pump-outs/nearshore toilets, areas of refuge, and viewscape (aesthetics)
- Endangered Species Act species: life histories and critical habitats
- Other management or regulated areas: shoreline management designations (local shoreline master programs), use authorizations for extractive resources, leases, other existing spatial plans, emergency management areas, and jurisdictions
- Demographic and socio-economic information for ports, communities & human uses

Some participants felt all of the spatial data listed generally supported a broad range of planning issues. However, others indicated that certain types of data were especially useful for a broad range of planning issues. These generally useful data types included: oceanographic processes, energy resources in the ocean, bathymetry-topography, seafloor type, habitats, fisheries, shipping lanes, tribal use areas, ownership, conservation/regulated areas, shoreline designations under shoreline master programs, and geological processes.

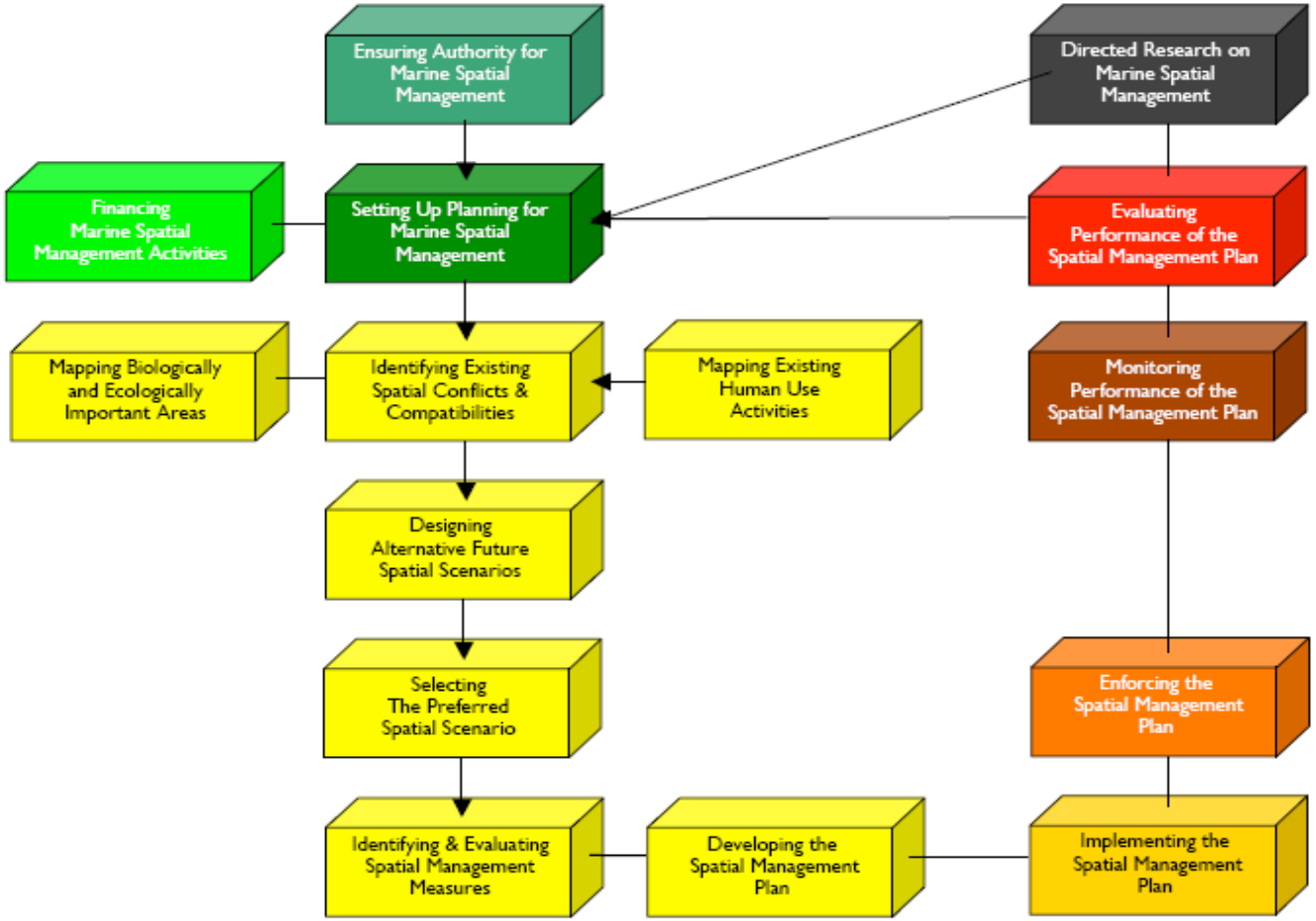
Data sharing and data access

Participants discussed the barriers and needs for accessing and sharing spatial data to advance marine spatial planning. The following were some key recommendations:

- Create a centralized on-line place to search for, download, and view spatial data and coordinate GIS data in the state with a GIS Council and central library/catalog.
- Establish data standards for metadata and data, including scale and resolution.
- Establish peer-review and Quality Assurance/Quality Control processes to screen data.
- Provide resources to collect, create, and manage spatial data at all levels.
- Develop levels of data accessibility to protect sensitive data and explore data aggregation for public viewing.
- Give open access to data and provide a transparent process.
- Develop data use agreements, legal protections for data providers, document intended data uses, consult on appropriate data-sharing, and establish government-to-government relationships.
- Have original authors/owners maintain data and use compatible data formats.
- Develop an open-access, decision-support tool with temporal and spatial variability in data and ability to do multi-objective analyses. Identify specific objectives for the tool before building it.
- Utilize web services for sharing data.

Appendix F - A step-by-step approach to marine spatial planning

United Nations Educational, Scientific, and Cultural Organization (UNESCO) Intergovernmental Oceanographic Commission[71]



[71] Ehler, Charles, and Fanny Douvere. *Marine Spatial Planning: A step-by-step approach toward ecosystem-based management.* Intergovernmental Oceanographic Commission and Man and the Biosphere Programme. IOC Manual and Guides No. 53, ICAM Dossier No. 6 Paris: UNESCO, 2009 (English). Available at: http://www.unesco-ioc-marinesp.be/

Appendix G – Summary of MSP recommendations

#	RECOMMENDATIONS
	FOCUS
1	***Planning focus*** Washington's marine spatial planning law requires a state plan to address at least renewable ocean energy. The state interagency team believes focusing on renewable ocean energy issue would be a practical way to start building a marine spatial plan, but the plan could also cover a range of other issues. Marine spatial planning could address, but is not limited to, emerging new uses, expanding existing uses, or resolving conflicts among existing uses for issues such as:[72] • Aquaculture, shellfish • Aquaculture, offshore fish and other such as net pens • Bio-prospecting: gathering and use of marine life for research or medicinal purposes • Marine Transportation • Oil and gas, including pipelines and spill prevention and response • Protection, conservation, or restoration of sensitive environmental areas for habitats, plants or animals • Scientific research and equipment: buoys, cables, etc. • Sediment removal, placement or disposal such as from dredging activities • Telecommunication or power cables • Other, such as: underutilized & new fisheries or natural resources, military activities, recreation & tourism activities, siting for nuclear power activities, and climate change
	GOALS & OBJECTIVES
2	***General principles*** The recommended goals and objectives for marine spatial planning in Washington should reflect unique concerns for Washington and the requirements of the state law, integrate with existing mandates for state agencies and policies, and incorporate relevant and compatible national goals for CMSP.
3	***Goals*** To protect, sustain, and appropriately utilize the state's marine waters and resources through coordinated decision making in a proactive, comprehensive and ecosystem-based manner. 1. Support sustainable, safe, secure, efficient, and productive uses of the ocean and our coasts, including those that contribute to the economy, commerce, recreation, conservation, homeland and national security, human health, safety, and welfare, or have cultural value. 2. Protect, maintain, and restore the state's ocean and coastal resources and ensure resilient ecosystems and their ability to provide sustained delivery of ecosystem services.

[72] While the State Ocean Caucus focused on the utility of planning for addressing new, expanding or conflicting uses, the team developed this list with the understanding that marine spatial planning should be conducted within the context of ensuring sustainability of marine resources.

	3. Provide for and maintain public access to the ocean and coasts. 4. Promote compatibility among uses and reduce user conflicts and environmental impacts. 5. Improve the rigor, coherence, and consistency of decision-making and regulatory processes. 6. Increase certainty and predictability in planning for and implementing new investments for ocean and coastal uses. 7. Enhance interagency, intergovernmental, and international communication and collaboration. 8. Recognize tribal treaty rights throughout the planning process.
4	***Objectives*** • Recognize and respect tribal treaty rights through proper government-to-government consultation and co-management. • Recognize and value existing uses, which includes, but are not limited to, recreational, commercial, cultural, and security uses. • Promote protection and restoration of biodiversity and ecosystem processes to a level that will enable long-term sustainable production of ecosystem goods and services. • Address potential impacts of climate change and sea level rise upon current and projected marine water uses and shoreline and coastal impacts. • Foster and encourage sustainable uses that provide economic opportunity and preserve coastal heritage without significant adverse environmental impacts. • Preserve and enhance public access to, commercial and recreational uses of, and other values for marine waters and shorelines. • Protect and encourage working waterfronts and support the infrastructure necessary to sustain water-dependent uses such as marine industry, commercial shipping, commercial, tribal and recreational fisheries, and shellfish aquaculture. • Foster public participation and significant involvement of communities adjacent to the state's marine waters in decision-making. • Integrate existing management plans and authorities and makes recommendations for aligning plans to the extent practicable. • Rely on best available science and create a process to adjust plans to incorporate additional science as it is available. • Improve scientific information about the marine ecosystem to fill data gaps, answer key management questions, and inform planning and decisions through adaptive management processes. Use the precautionary approach as reflected in Principle 15 of the Rio Declaration, "Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."
	ECOSYSTEM INDICATORS
5	***Establish committee to develop indicators*** A coordinating body for Washington's coast should form a subcommittee involving tribal, federal, local and state policy leads who will review existing indicator information on the status of the coastal and marine ecosystem, including humans, and tailor that information to formulate high-level ecosystem indicators that relate specifically to the health of Washington's coast and that may track processes that humans or a marine spatial plan may not be able to influence.

	These indicators should be consistent with those being considered for the California Current Large Marine Ecosystem and, where appropriate, compatible with those developed for the Puget Sound and Columbia River and should cover ecological, social, and economic elements. More specific indicators should also be developed to track performance of a marine spatial plan and, therefore, things that a marine spatial plan and human decisions can influence. The potential indicators should be reviewed for comment by an independent science review panel prior to formal adoption by the coordinating body for the coast. Complete ecological indicators within one year from its start; complete social and economic indicators within two years of its start.
	SPATIAL DATA NEEDS
6	***Priority data needs*** Collect priority spatial data to support marine spatial planning in Washington. Data on human uses will be essential for good planning. The human uses category includes cultural, commercial, and recreational patterns of use of marine waters and resources – both consumptive and non-consumptive. Additional priority spatial data types are also needed and should be collected to support marine spatial planning in Washington:[73] • Bathymetry-topography • Fisheries • Habitats • Conservation/regulated areas • Water quality • Oceanographic processes • Marine fish • Geomorphic characterization • Endangered and Threatened species, including their critical habitats, state sensitive species and state species of concern. • Ownership Certain types of spatial data should be collected and conveyed in a manner that reflects major temporal or seasonal patterns, where appropriate and feasible. Additionally, planning should seek to incorporate relevant cultural or traditional knowledge and scientific information collected by citizens. However, using these types of information appropriately will require establishing a technical, peer review process for scientific information as part of the planning process. A planning process should seek to construct a basic, broad baseline of spatial information to support a marine spatial plan, while more detailed, site-specific information should be collected and required as part of the project-level permitting process.

[73] This list is not intended to limit the types of spatial data collected or used to support a planning process, merely provide an initial sense for higher priority types of data. A more complete list of the types of data that would assist planning is included in Chapter 2.

	DATA MANAGEMENT & DELIVERY
7	***Accessing data*** Use spatial data required for marine spatial planning as a pilot for development of a single-point-of-access for Washington GIS data and provide staff support for GIS program office. The state should pursue the enterprise option outlined in WAGIC's business plan to best fit needs of agencies and public for MSP in terms of searching, viewing, and accessing geospatial data. The state should also pursue connections to regional GIS capacity and regional data portals, including tribal, federal, local, academic, and non-governmental sources, where appropriate.
8	***Data standards*** Develop and utilize data standards for ensuring a unified approach to data use and management in planning and ensuring quality control by setting up and utilizing a transparent, peer-review process involving technical and scientific experts. In addition, adopt ISB-GIT standards process for data creation and metadata standards and recommend that all metadata for GIS data, applications, and services are documented in the WAGIC clearinghouse.
9	***Data sharing*** Evaluate the use of an exchange network or other similar tools for sharing and managing data for marine spatial planning.
10	***Decision tools*** Evaluate existing state agency tools and regional data portals for managing and analyzing spatial data and evaluate whether the development of a decision-support tool is needed to support marine spatial planning.
	MSP FRAMEWORK
11	***Plan elements*** Under Washington's MSP law, any comprehensive plan developed for all or part of Washington waters must include the following elements: • Use priorities and limitations for federal waters • Ecosystem assessment • Series of maps • Implementation strategy • Framework for coordinating review of renewable ocean energy proposals

12	***Public involvement*** Use a range of mechanisms to foster public participation and involvement of coastal communities throughout the planning process. Options include establishing a broad-based steering committee for the statewide process; establishing an advisory group comprised of a cross-section of affected stakeholders, agencies, and interested parties to advise the planning process for the coast or using existing governance and advisory bodies for Puget Sound and Columbia River estuary; conducting public outreach meetings and workshops from initial scoping stages through drafts and final adoption of the plan; engaging community-based interest groups and standing resource management entities. Marine Resource Committees can be a particularly useful mechanism for fostering local public involvement and participation during the planning process.
13	***Tribal consultation*** Any marine spatial planning process needs to recognize treaty rights and foster a co-management relationship with the tribes regarding ocean and coastal resources. Ways to achieve this include inviting individual tribes to participate in government-to-government consultation and communication with the state as well as establishing or utilizing tribal-state policy forums modeled after the Ecology Tribal Environmental Council or Olympic Coast Intergovernmental Policy Council. Initiating government-to-government consultation involves contacting the tribal chair, but will be facilitated by including Natural Resource directors in any initial communication. Thereafter, consultation can occur with those leads designated by the tribe. The four coastal treaty tribes (Makah Tribe, Hoh Tribe, Quileute Tribe, and Quinault Indian Nation) jointly recommend using the following definition of government-to-government consultation and adopting a generic approach to consulting with tribes throughout a marine spatial planning process.
14	***Technical and scientific expertise*** Create a mechanism for integrating scientific and technical expertise and advice as part of MSP. Options to consider include engaging existing scientific advisory forums, groups or panels for input; hosting workshops or meetings focused on scientific and technical tasks and advice; and establishing a technical/scientific advisory group.
15	***Develop geographic plans and assign lead agency*** Develop marine spatial plans for three major geographic regions of the state: Puget Sound, the Columbia River, and the coast (see Recommendations 16, 17, and 18). This will allow flexibility for these areas to address unique planning issues. Integrate with existing plans in Puget Sound and the Columbia River estuary to maximize efficiency. Develop criteria for effective integration with existing plans and evaluate throughout the process to ensure criteria are met. Establish a mechanism for coordinating these individual planning efforts to ensure statewide consistency and compatibility as well as to maximize leveraging of resources for common needs such as data collection and data management. While the legislation calls for the interagency team to oversee these functions, the State Ocean Caucus recommends establishing a lead agency to coordinate marine spatial planning activities statewide in consultation with a broader steering group.
16	***MSP in Puget Sound*** The Puget Sound Partnership should include a marine spatial planning component in the Puget

	Sound Action Agenda. The Partnership already has a defined a planning area and adopted goals. They should use their existing Action Agenda update process to incorporate MSP into the Action Agenda. Steps should include: 1. During the 2011 review of the Action Agenda and the biennial science work plan, assess the potential of MSP as a management strategy to meet Action Agenda plan goals and to address priority threats to the ecosystem. 2. Develop the Action Agenda and incorporate MSP into strategies and actions. 3. Identify and fill data gaps. 4. Develop marine spatial plan component. 5. Leadership council adopts updated Action Agenda strategies and actions. 6. Implement Action Agenda and assess and report on effectiveness. *7.* Utilize adaptive management processes to modify Action Agenda plan.
17	***MSP in the Columbia River estuary*** The Lower Columbia River Estuary Partnership (LCREP) should integrate marine spatial planning into the management efforts for the Columbia River estuary. The Lower Columbia River Estuary Partnership (LCREP) already has a defined planning area and adopted goals for the estuary. They should use their existing planning process and advisory groups to integrate MSP into the management efforts for the Columbia River estuary. Steps should include: 1. Estuary Partnership Board adopts MSP as a goal. 2. Estuary Partnership staff and Science Work group review Estuary Partnership Comprehensive Conservation and Management Plan goals, management activities and strategies, threats, and assess the potential of MSP to meet some of these needs. Determine specific elements, focuses, actions or outcomes for MSP 3. Estuary Partnership staff and Science Work Group identify specific elements, focuses, actions or outcomes that would incorporate MSP into the Comprehensive Conservation and Management Plan. 4. Develop marine spatial plan component, including filling data gaps and reviewing plan with key stakeholders, including but not limited to state agencies or entities in addition to Science Work Group and key constituent groups. *5.* LCREP Board of Director's adopts the marine spatial plan component into the Management Plan.
18	***MSP for Washington's coast*** Develop a marine management plan with a marine spatial plan component for Washington's coast using the following steps: 1. Scope out and establish a coordinating body (such as the coastal coordinating committee in Figure 1, above) for pursuing MSP for the coast through a collaborative process that involves all levels of government (state, tribal, federal, and local) with jurisdiction. Use a broad working group to develop, explore, and evaluate specific roles and membership for a coast coordinating committee with various governments, groups and interests on the coast, including tribes, local and federal governments, marine resource committees, and stakeholders. Specific roles on the coordinating body and for the various groups in the MSP process for the coast could be established through a Memorandum of Agreement. Establish additional planning process elements for public involvement, scientific expertise, tribal consultation and agency implementation (see statewide recommendations for options). The

	marine resource committees may be particularly helpful in exploring potential funding opportunities for supporting planning on the coast. 2. Expand effort to acknowledge and review existing management plans, priorities and authorities for the coast such as the Olympic Coast National Marine Sanctuary Management Plan, Washington's Ocean Action Plan, and the national Coastal Zone Management Act and Washington's state Coastal Management Program. Coordinate efforts with broader regional ocean health and CMSP efforts, where appropriate. Refine goals and objectives for broader ecosystem and MSP process to address any specific gaps. 3. Identify and fill data gaps. 4. Develop plan. *5.* Coordinating body adopts the plan.
19	***Plan implementation*** Develop geographically specific implementation strategies that rely on existing agency authorities. Design a process to foster interagency implementation of the plan. Potential mechanisms to consider include establishing memorandum of understandings (MOUs) or other agreements and utilizing interagency teams to coordinate on plan implementation and/or project review. Once the plan is completed, the marine spatial planning legislation requires that each state agency and local government make decisions in a manner that ensures consistency with the plan to the greatest extent possible. It also requires the Department of Ecology, in coordination with an interagency team, to periodically review existing management plans maintained by state agencies and local governments that cover the same marine waters as the marine spatial plan. Ecology must look for any substantial inconsistency with the marine spatial plan and make recommendations to the agency or local government for revisions to eliminate the inconsistency. Within four years following adoption of the marine spatial plan, Ecology, in coordination with the interagency team, shall report to the Legislature describing provisions of existing state and local management plans that are substantially inconsistent with the marine spatial plan and make recommendations for eliminating the inconsistency. Finally, as outlined in Section 6 of marine spatial planning legislation, the Director of the Department of Ecology shall submit the completed marine spatial plan to the National Oceanic and Atmospheric Administration for its review and approval for incorporation into the states federally approved coastal zone management program.
20	***Federal integration*** Coordinate with federal agencies on marine spatial plan development and implementation. Work with federal agencies during development of the state plan. Ensure that federal agencies consider state marine spatial plans when conducting activities that affect Washington's coastal resources.[74] One way the state law ensures this is through submission of the final marine spatial plans for incorporation into Washington's federally-approved coastal zone management program. Other mechanisms may include establishing Memorandum of Understanding (MOU) or other agreements with relevant federal agencies for acknowledging state marine spatial plans. For example, Washington already has a MOU with the Federal Energy Regulatory Commission (FERC) regarding

[74] This includes federal activities both within state waters and in adjacent federal waters (3 to 200 nautical miles offshore).

	permitting and licensing for tidal or wave energy projects. This MOU encourages early consultation and communication regarding project proposals between the state and FERC. In addition, FERC also agrees to consider any comprehensive plan developed by Washington for the siting of tidal or wave energy projects when determining whether to issue permits or licenses.
21	***Regional coordination*** The Washington MSP law also encourages the coordination of state efforts with broader regional and international planning efforts as resources allow. Given the large emphasis on developing regional Coastal and Marine Spatial Plans in the national framework, the State Ocean Caucus recommends that Washington continue to collaborate and coordinate with the other state, federal, and international jurisdictions on the West Coast in development of regional plans. A particular focus should be through the West Coast Governors' Agreement on Ocean Health, or whatever entity is established to serve as the CMSP Regional Planning Body, as required in the new national CMSP Framework under Presidential Executive Order 13547. Activities should include sharing information with other states and entities in the region regarding their marine spatial planning efforts and coordinating with them on appropriate technical standards and planning tools. This coordination will maximize the efficient use of resources and ensure regional planning considers and reflects Washington's needs.

Appendix H – Major Themes from Comments on Draft Report and General Responses

This section summarizes some of the major, common themes from the comments received on the draft report during the comment period and the State Ocean Caucus' response. This general summary does not attempt to address every individual or detailed comment or record those comments verbatim. However, it is intended to provide a general response to the most common and substantive comments on the draft report. Written comments received on the draft report, as well as detailed notes from outreach sessions attended by State Ocean Caucus staff are all posted on the marine spatial planning website at: http://www.ecy.wa.gov/programs/sea/msp/index.html. In addition, state staff members were invited to participate in five outreach sessions hosted by other organizations on the draft report during the public comment period. A short summary of major themes heard from each of these outreach sessions is included below the comment and response table.

Major Comment Themes and Responses			
Theme*	**Summary of Comments**	**Where it was heard**	**Response**
Oil Spill Prevention & Response	Oil spill prevention and response needs to be a priority in the report. Spill prevention needs to be a priority, especially on the coast and should include various types of information, such as vessel traffic lanes.	• Outreach Sessions (Friday Harbor, Westport) • Written Comments (Anonymous, Beasley, Surfrider Seattle I)	The state has an existing spill prevention and response program that addresses management of these issues, including through development of Geographic Response Plans (see Chapter 2 and Appendix B). A marine spatial plan will need to be consistent with these other plans and could consider risk of spills and related information as part of the analysis for whatever activities the plan is addressing. Chapter 2 already lists several types of spatial data needed for planning that are relevant to oil spill prevention and response such as shipping and towboat lanes, The Area To Be Avoided and Geographic Response Plans and sensitive areas. Revisions also added oil spill prevention and response to the list of potential management issues that could be an outcome of a marine spatial planning process.

Major Comment Themes and Responses			
Theme*	**Summary of Comments**	**Where it was heard**	**Response**
Oil and Gas development	Called for close coordination with federal agencies to include new protections for areas not currently closed to oil and gas development.	• Written Comments (Surfrider)	As noted in the Chapter 2 analysis of current goals and objectives, oil and gas development is already prohibited in all of the state's marine waters. The state's marine spatial planning law includes a provision to provide recommendations on the state's priorities for uses in adjacent federal waters. The development of a marine spatial plan would need to be consistent with state laws and policies and these, in turn, would guide the state's priorities for federal waters. The State Ocean Caucus provided recommendations for coordinating with federal agencies on development of its marine spatial plan. Finally, the marine spatial plan law also must be submitted to be a part of the state's federally-approved coastal zone management program. This would be another mechanism for the state to influence federal policies, priorities, and activities in adjacent federal waters.
Privately Owned Lands –especially shellfish aquaculture deeded lands.	Draft recommendations need to include a goal or objective to respect and plan for privately owned or leased lands, including tidelands for aquaculture. In addition, spatial data should be collected to represent these lands.	• Outreach Sessions (Friday Harbor, Padilla Bay, Westport) • Written Comments (Dewey, Sheldon B., Sheldon D.)	Privately-owned tidelands are included in the geographic scope of marine spatial planning. The revisions provide clarifying information to this effect in the introduction of the report as well as in the preliminary list of spatial data in Chapter 2. The state law indicates a comprehensive marine spatial plan should be developed covering marine waters from ordinary high water/head of tide. Within these areas, there are overlapping jurisdictions. For example, tribal reservations or federal lands may occupy areas that are covered by the definition in the state law. A planning process will need to resolve how to address geographic scope for the plan and these jurisdictional issues in more detail.

Major Comment Themes and Responses			
Theme*	**Summary of Comments**	**Where it was heard**	**Response**
Marine Protected Areas/Marine Reserves	The Draft Report should recommend the use of marine protected areas and/or marine reserves (no take areas) to protect biodiversity, restore ecosystem health, and protect special places. Oceana calls for identifying and designating Important Ecological Areas.	• Outreach Sessions (Tacoma) • Written Comments (Baker, Marx, Oceana, Sierra Club, Surfrider NWS)	The report is not intended to provide specific recommendations on the use of particular management measures, nor resolution for particular management issues. These are things that would be addressed through a planning process. Revisions included adding more background information on existing state and locally managed Marine Protected Areas in Chapter 2. Also clarified the purpose of the report in the Introduction.
Preserving Existing Uses	Many comments focused on preserving existing uses in any future MS Plans, specifically: working waterfront/water-dependent uses for industrial, commercial, and agricultural uses.	• Outreach Meetings (Padilla Bay, Westport) • Written Comments (Beasley, BP, Dewey, Sheldon B., Sheldon D., WPPA)	The importance of recognizing existing uses is already outlined in the state law as well as in recommended goals and objectives. Additionally, several types of information related to existing uses have been identified as important considerations for a planning process.
Ecological protection and restoration	The Draft Report should make ecological protection the most central/highest priority goal and more prominent in the report.	• Outreach Meetings (Seattle) • Written Comments (People for Puget Sound, Surfrider NWS, Sloan)	Ecological protection and restoration are already outlined in the state law and a part of the recommended goals and objectives. Additionally, the section on spatial data already identifies many types of ecological information and important to consider as part of a planning process. Marine spatial planning is intended to deal with planning for uses at the same time as protecting the marine ecosystem. According to the law, all goals for marine spatial planning are equally important. The specific order of goals or number of times this concept is reference has no bearing on its importance.

Major Comment Themes and Responses			
Theme*	**Summary of Comments**	**Where it was heard**	**Response**
Protecting Endangered Species	The recommendations should include data explicit to endangered species ranges and habitats to address what is most important in their life histories. Protection of listed species should be a priority.	• Outreach Sessions (Friday Harbor) • Written Comments (Baker, Hoffman, Sierra Club, Viers)	Endangered Species was already identified as a priority data type and necessary consideration for marine spatial planning. Revisions clarified and expanded the types of information that this encompasses such as critical habitats.
Department of Natural Resources' Habitat Conservation Plan	During debate over Substitute Senate Bill 6350, the Department of Natural Resources' Habitat Conservation Plan was removed from the language as it was considered too controversial. Public comments expressed the need for removal of this plan from the Draft Report.	• Outreach Sessions (Padilla Bay, Westport) • Written Comments (Dewey, Sheldon B., Sheldon D.)	While the Department of Natural Resources is currently developing a Habitat Conservation Plan, this plan has not been finalized nor adopted by the Department. Revisions replaced various references to Department of Natural Resources HCP with the direct language from the state law "land management plans for state owned aquatic lands and their associated waters statewide".
Avoiding Redundancy/ Integration of MSP into Existing Plans	The public has expressed concern over how MSP will fit into existing regulatory structures (e.g. SMPs) and how it may be redundant. Report should ensure smooth integration of future plans into existing activities, management efforts and permitting procedures.	• Outreach Sessions (Padilla Bay, Westport) • Written Comments (BP, Carter)	Revisions in the Introduction and Chapter 2 clarified the role of marine spatial plan and its relationship to existing regulations and how it can improve efficiencies for decision-making.

Major Comment Themes and Responses			
Theme*	**Summary of Comments**	**Where it was heard**	**Response**
Recreational/Non-Consumptive Uses/Public Access	There is concern over potential conflicts between future renewable energy siting and current recreational uses of marine resources. Additionally, support for public access for recreational uses was noted in several comments. • Expand recreational objective to "protecting and enhancing public access to marine waters and shorelines."	• Outreach Sessions (Padilla Bay, Tacoma, Westport) • Written Comments (Kennedy, Rickerson, Surfrider NWS, Surfrider Seattle (I,II,III))	Importance of recreational uses and need for public access is already identified in the goals and objectives for marine spatial planning. Revisions clarified that human use data needed for planning includes both consumptive and non-consumptive recreational uses and added specificity to the recommended objective related to public access.
Marine Resource Committees/Local Involvement	There was support for the idea that the MRCs should play a central role in MSP process both on the coast and in the Puget Sound. Local efforts and data collection can be funneled through the MRCs. • Recommendations should clearly identify mechanisms for public involvement.	• Outreach Sessions (Friday Harbor, Westport) • Written Comments (Anonymous, Beasley, Happonnen, Kennedy, Nordin, TNC)	Marine Resource Committees (MRCs) can be an important mechanism for supporting marine spatial planning, including community representation and involvement in the process. Revisions clarified the background information on funding sources and structures for MRCs (Chapter 2) as well as acknowledged this role more specifically in the recommendations on public involvement and governance (Chapter 3). Revisions also provided more specifics about mechanisms for fostering public involvement. Finally, see additional revisions on clarifying the potential relationship between state efforts and regional planning body as part of Recommendation 21, including a flow chart.

Major Comment Themes and Responses			
Theme*	**Summary of Comments**	**Where it was heard**	**Response**
Lead agency and governance for MSP	• Identify a lead state agency and process for agency coordination; build out governance structures for coast and statewide MSP. • Create leadership body for coast and identify partner agency that responds to leadership body, instead of acting as the "lead."	• Outreach sessions (Westport) • Written Comments (Kennedy, TNC)	<u>Statewide and process</u> The State Ocean Caucus felt it was most important to identify the need for a lead for the statewide coordination of MSP and leave the determination of that lead to the legislature and Governor's office. Specifically, building out any governance structures will require additional funds targeted for conducting MSP. The state currently lacks these funds. <u>Coast</u> Identifying a specific structure and membership for the coordinating group for the coast and associated advisory bodies will require additional conversations and evaluation with all levels of governments and other community groups. Revised recommendation around working with governments and other potential partners to continue to explore and develop the exact structure and process for the coastal coordinating body, rather than specifically identifying a lead agency. Revised the corresponding governance graphic to reflect this change.

Major Comment Themes and Responses			
Theme*	**Summary of Comments**	**Where it was heard**	**Response**
Rigorous Science/Data Quality, Analysis and Standards	Many questions over sources, collection method, consistency, scale, and resolution of data were posed. The report lacks explicit details of what "sound science" entails. • Call out the need for temporal data, specifically to account for seasonal differences to be collected and mapped. • Need to incorporate traditional and cultural knowledge into scientific information. • Need to incorporate citizen science and have peer-review process include non-scientists.	• Outreach Sessions (Seattle, Friday Harbor, Padilla Bay, Tacoma, Westport) • Written Comments (Dewey, Felleman, Happonnen, Hoffman, Kennedy, PFPS, Sloan, TNC, WPPA)	Temporally varying data and traditional and cultural knowledge are all important to a marine spatial planning process. Revisions included adding more specificity on these topics in the background and findings as well as in the recommendations for spatial data. The report already acknowledges the need to have a peer-review process and to set standards for inclusion of scientific data as part of the recommendations. The report was not intended to set forth details such data standards as scale, collection method, sources, resolution, or analytical methods. Those specific issues should be resolved during a planning process.

Major Comment Themes and Responses			
Theme*	**Summary of Comments**	**Where it was heard**	**Response**
Funding	Several comments and discussions focused on the lack of funding for this effort. The Draft Report should include potential sources and avenues for funds. Recommend forming public and private partnerships to secure funding and develop work plans with timeline, budget, etc. to assist in securing funds.	• Outreach Sessions (Seattle, Friday Harbor, Padilla Bay, Westport) • Written Comments (PFPS, TNC)	The state law and report already identifies federal or non-state funding as a critical condition for conducting marine spatial planning. However, revisions included adding more discussion and emphasis on this fact throughout the report, as well as some potential next steps related to securing funding (Chapter 3).
Aquaculture	Concern about impacts of shellfish aquaculture, particularly geoduck, on ecosystem. Ensure careful evaluation of environmental impacts for any expansion.	• Written Comments (Branch, Hendricks) • Outreach Sessions (Tacoma)	The report is not intended to provide specific recommendations on the use of particular management measures, nor resolution for particular management issues. These are things that would be addressed through a planning process.
Precautionary approach	Incorporate use of precautionary principle/approach as in national CMSP framework.	• Written Comments (NMFS, Dept. of Defense Air Force)	Revised report to include a new objective to use the precautionary approach by adopting language and definition for the precautionary approach from the national CMSP framework's planning principle.
Indicators	Suggested changes to existing indicators for Puget Sound as well as potential indicators for elsewhere.	• Written comments (Baker, Hendricks, PCMRC / Beasley)	For Puget Sound, the ecosystem indicators have already been adopted and it is not the intent of this report or group to revisit them. For the coast, potential ecosystem indicators provided are for illustrative purposes only. The recommendation remains to pursue an inclusive process to establish relevant indicators for the coast.

Major Comment Themes and Responses			
Theme*	**Summary of Comments**	**Where it was heard**	**Response**
Climate Change	The framework should more explicitly address how climate change will factor into marine spatial planning. Additionally, the framework should identify a specific time horizon for planning.	• Written Comments (Hoffman)	Addressing climate change is a requirement of the state law and will need to be factored in during a planning process. The report was not required to nor intended to identify how to address specific management issues, nor come up with a specific planning horizon. These are things that should be addressed as part of a planning process. Climate change was identified as under spatial data needs and revisions were made to clarify that this includes information on how climate change will affect the various uses and resources.
*These themes are in no particular order or rank.			

Themes from Public Outreach Meetings

Seattle Meeting Summary
9/20/10

Attendees generally supported how the report addressed engaging the public and tribes, and that it recognized the divergent uses of marine resources. Some expressed concern about a focus on "uses" of marine resources rather than protecting and sustaining these resources. Some felt that this focus would validate current uses that are harmful to the ecosystem. Clarification was needed on how any future plan would: impact existing uses, take steps to engage stakeholders and hear all voices, and incorporate data. Participants voiced concerns over how to ensure adequate data quality and methodology for collecting and analyzing data were also a large part of the day's discussion. Data recommendations included defining what constitutes "best science" and data analysis techniques, as well as need to map dynamic processes.

Friday Harbor Meeting Summary
9/24/10

The questions and discussions during this meeting generally centered on environmental concerns: how MSP could address the effects of mining/dredging, cyclic or seasonal nature to many datasets, what protections endangered species would be afforded, how ocean acidification and climate change would be addressed. There were also discussions on process questions such as how Tribes can be engaged, how local governments and MRCs can get involved, and how data would be collected.

Padilla Bay Meeting Summary
9/27/10
Main concerns over MSP in Washington included how this type of planning may impact existing regulations or designations and whether MSP would facilitate efficiency in decision making, or would there be redundancies or overlap in current efforts to regulate marine related activities. On participant noted, the inclusion of the Department of Natural Resources' Habitat Conservation Plans is not appropriate given it's exclusion from the legislation. Another dominant theme from these discussions centered on the lack of local participation and integration into the draft report.

Tacoma Meeting Summary
9/29/10
Public involvement and process were over-arching themes from the Tacoma meeting. Specifically, questions came up over how MSP in WA would be integrated into PSP and LCREP, or what that would look like in terms of additional required work for those groups. In several statements it was suggested that the SOC in proceeding with MSP, should rely on local, indigenous and stakeholder knowledge as a way of bringing those groups into the process. Some of these groups expressed a feeling of being ignored in the past by state agencies. There were several comments very specific to conflicts MSP could stand to alleviate in Puget Sound such as: public access vs. private lands, renewable energy vs. existing resource uses, and tribal areas.

Westport Meeting Summary
9/30/10
Several key issues emerged as important to all. Following the presentation on the status of MSP in Washington and the Draft Report, many comments suggested that the Marine Resource Committees serve as the platform for coastal engagement, and furthermore, they should have more representation on the State Ocean Caucus. Another common comment was on the need to identify Willapa Bay and Gray's Harbor as well as private tidelands, explicitly, in the draft report. Issues that also resounded: oil spill prevention and response, working waterfronts, mapping human uses and providing socio-economic analyses, private land, and data collection and availability (format and consistency).

Appendix I – Initial Inventory of Spatial Data to support Marine Spatial Planning

The State Ocean Caucus conducted an initial inventory of existing spatial* data that matched the needs identified in the July 13, 2010 data working session (See Appendix E). The inventory spreadsheet and instructions were sent out to several individuals, groups, and agencies thought to hold pertinent data. The inventory primarily sought data available across the state's marine waters or for large geographic sub-regions. This inventory is not yet complete and more work will need to be done to ensure that it is truly representative of available data. Furthermore, the initial inventory only gathered basic information about data types, but did not set any parameters on data quality or format. Included in the table below is a portion of the information collected; specifically, the name of the dataset and the current owner.

*In order to be considered spatial data, regardless of format, data must have a corresponding geographic location.

Data Type	Who owns the data?
Jursidictional Boundaries:	
US Marine Jurisdictions: State Seaward boundary (Submerged Lands Act), Limit of the '8(g) Zone', Territorial Sea, Contiguous Zone, and the Exclusive Economic Zone.	This dataset is not an authoritative data source for marine boundaries; please see the Minerals Management Service and NOAA Office of Coast Survey for authoritative data.
Marine Protected Areas	National Marine Protected Areas Center
Federal Fishery Management Areas	
National Estuarine Research Reserve System sites	National Estuarine Research Reserves Center
National Marine Sanctuaries	National Marine Sanctuaries Program
Coastal National Forests	United States Forest Service
Coastal National Parks	National Park Service
Coastal Indian Lands	DOI, Bureau of Indian Affairs
Coastal National Wildlife Refuges	U.S. Fish and Wildlife Service
MMS OCS Lease Blocks and Protraction Diagrams	Minerals Management Service
MMS Planning Area Boundaries	Minerals Management Service
Federal OCS Admin Boundaries	Minerals Management Service
Federal Georegulations:	
Coastal Zone Management Act	NOAA Coastal Services Center
Federal Agency Regions:	
Fishery Management Council Regions	NOAA Coastal Services Center
MMS Planning Areas	Minerals Management Service
National Marine Fisheries Service regions	NOAA Coastal Services Center
U.S. Coast Guard Districts	NOAA Coastal Services Center
U.S. Fish and Wildlife Service Regions	NOAA Coastal Services Center

Navigation and Marine Infrastructure:	
Transmission Lines	Federal Emergency Management Agency
Ports	U.S. Army Corps of Engineers
Shipping Lanes	DOT, Bureau of Transportation Statistics
Wrecks and Obstructions	NOAA, Office of Coast Survey, Hydrographic Survey Division
Military Danger Zones	US Navy
Human Use:	
MMS Active Leases	MMS
Marine Habitat and Biodiversity:	
Large Marine Ecosystems	NOAA, NMFS LME Program
Essential Fish Habitat (MSA)	Pacific Coast Marine Habitat Program
West Coast Habitat Areas of Particular Concern (HAPC) (MSA)	NOAA, National Marine Fisheries Service, Office of Habitat Conservation
Critical Habitat (ESA)	NOAA, National Marine Fisheries Service, Office of Protected Resources
Geology and Seafloor:	
Undersea Feature Placenames	National Geospatial-Intelligence Agency
30m Bathymetric Contour	Merged from several sources.
Pacific Offshore Surficial Sediment	U.S. Geological Survey, Coastal and Marine Geology Program
Northwest Bathymetric Contours (10m)	U.S. Geological Survey, Coastal and Marine Geology Program
West Coast Seafloor Geology	U.S. Geological Survey, Office of Marine Geology
Biology/WDFW:	
Recreational Albacore Logbooks	WDFW/NOAA
Sablefish Logbooks (Voluntary)	WDFW
Arrowtooth Experimental Fishery Data	WDFW
Dogfish Experimental Fishery Data	WDFW
Rec. Canary/Yelloweye Logbook	WDFW
Rec. Rockfish Observer Data	WDFW
Rec. Charter Halibut Observer Data	WDFW
Recreational Albacore Observer Data	WDFW/NOAA
razor clam population estimate	WDFW
razor clam harvest estimate	WDFW
coastal spot prawn log book	WDFW
oyster condition index	WDFW
Willapa Oyster reserves	WDFW
commercial razor clam harvest	WDFW
harmful algal bloom abundance	WDFW
pacific oyster larvae abundance	WDFW
Coastal Dungeness Crab Logbook	WDFW
Coastal Dungeness Crab Logbook	WDFW
Forage Fish Survey Points	Habitat
Forage Fish Surveys -Lines (modeled	Habitat

representation of Forage Fish Surevey Points)	
Documented Sand Lance Spawning (subset of Forage Fish Surveys - Lines)	Habitat
Documented Smelt Spawning (subset of Forage Fish Surveys - Lines)	Habitat
Fish Passage Barrier Inventory (inventory of human-made fish passage structures)	Habitat
land cover - VegClearing Change Polygons	WDFW
Segments - stream habitat	WDFW
Priority Habitats And Species Polygons	WDFW
Bald Eagle Management Buffers	WDFW
Shellfish Summary (standardized dataset of various shellfish layers)	WDFW
PHS Kelp (shows extent of kelp beds over the years - from DNR Kelp layers)	WDFW (from DNR)
Herring pre-spawn holding areas	Fish
Herring spawning areas	Fish
Herring spawn deposition surveys	Fish
Herring spawn deposition surveys	Fish
Herring spawn deposition surveys	Fish
Geographical definitions - Puget Sound (based on old Bon-Tat line)	WDFW
Geographical definitions - Grays Harbor	WDFW
Geographical definitions - Willapa Bay	WDFW
Geographical definitions - Outside Initiative 77 line	WDFW
Geographical definitions - Inside Initiative 77 line	WDFW
Puget Sound Crab Management Regions	WDFW
Geographical definitions - Lopez Island shrimp fishing area	WDFW
Puget Sound Shrimp Districts	WDFW
Geographical definitions - Clam and oyster districts	WDFW
Geographical definitions - Deep River (Wahkiakum County)	WDFW
Westport Boat Basin	WDFW
English Camp Tidelands	WDFW
Buoy 13 line	WDFW
Light 26 Line	WDFW
Bonilla-Tatoosh Line (old version - not updated per 7/2010 change)	WDFW
Coast, Willapa Harbor, Grays Harbor Salmon Management and Catch Reporting Areas	WDFW
Puget Sound Salmon Management and Catch Reporting Areas	WDFW

Marine Fish-Shellfish Management and Catch Reporting Areas, Puget Sound	WDFW
Marine Fish-Shellfish Management and Catch Reporting Areas, coastal waters	WDFW
Aquaculture districts	WDFW
Closed areas - Grays Harbor and tributaries	WDFW
Puget Sound - Salmon preserve - Drayton Harbor	WDFW
Puget Sound - Salmon preserve - San Juan Island	WDFW
Puget Sound - Salmon preserve - Strait of Juan de Fuca	WDFW
Puget Sound - Area 7A salmon fishery separation lines	WDFW
Closed areas - Puget Sound salmon	WDFW
Beam trawl and bottom trawl Seasons	WDFW
Crab fishery - Seasons and areas	WDFW
Shrimp fishery - Puget Sound	WDFW
Sea urchins	WDFW
Marine area codes	WDFW
Tidal reference areas	WDFW
Sea Cucumber Marine Protected Areas	WDFW
Sea Urchin Marine Protected Areas	WDFW
Various WACs in the 220-16 series, WDFW Marine Protected Areas	WDFW
Puget Sound Groundfish Management Areas	WDFW
Buoys, Lights, Lighthouses, Markers (only those used in WACs)	WDFW
High and Low Tide	WDFW (from DNR)
Frontiers	WDFW
Marine Names	WDFW
Pacific Coast, North	WDFW
Pacific Coast, North	WDFW
Boat Ramps	WA Parks & Rec?
Bottom Type	WDFW (from NOAA)
Depth Contours (5, 10, 20, 40, 60, 120 fm)	WDFW (from NOAA)
Coastal Trawl Logbook sardine blocks	WDFW (from NOAA)
Fathoms, Canada (5, 20, 40, 60, 120 fm)	WDFW
Fathoms, Coast (20, 50, 100, 200, 500, 1000 fm)	WDFW
Fathoms, Elliott Bay (5, 20, 40, 60 fm)	WDFW
Fathoms, USA (5, 20, 40, 60, 120 fm)	WDFW
Fathoms, Orcas Islands (10, 20 fm)	WDFW
Fathoms, Orcas Islands (10, 20 fm)	WDFW
Foot 20 (20ft contour line)	WDFW (from NOAA)
Meters, Coast (10, 18, 22, 28, 36, 50, 54, 92,	WDFW

100, 180, 200 m)	
Olympic Coast National Marine Sanctuary	WDFW (from NOAA)
Pinnacles (of rock identified from SONAR survey transects)	WDFW
Puget Sound Waterbody IDs	WA DOE
Roads in Oregon (major roads, coastal areas)	USGS
Marine Protected Areas of Washington State	WDFW
Proposed WDFW Marine Protected Areas	WDFW
Coastal rockfish areas and catch statistics	WDFW
Ocean drifts and Puget Sound basins	WDFW
Juvenile Rockfish Survey Areas (Ray Buckley)	WDFW
Tech Report 79, Revised, electronic version	WDFW
Tech Report 79 Harvest Activities: "Crab_C" - Crabbing: commercial/sport	WDFW
Tech Report 79 Harvest Activities: "Crabline" - Commercial crabbing by season	WDFW
Tech Report 79 Harvest Activities: "Demersal" - targeting bottom dwellers	WDFW
Tech Report 79 Harvest Activities: "Mussel" - Cultured mussels	WDFW
Tech Report 79 Harvest Activities: "Pelagic" - targeting near-bottom dwellers	WDFW
Tech Report 79 Harvest Activities: "Reef" - targeting reef-dwellers	WDFW
Tech Report 79 Harvest Activities: "SalmonCm" - commercial salmon fisheries	WDFW
Tech Report 79 Harvest Activities: "SalmonSP" - recreationally fished salmon	WDFW
Tech Report 79 species locations: "Aba_Town" - Abalone (generalized to township)	WDFW
Tech Report 79 species locations: "Abalone" - Ablone polygons	WDFW
Tech Report 79 species locations: "Clam" - Cockles, eastern softshell, horse, and manila	WDFW
Tech Report 79 species locations: "ClamHard" - Hardshell Intertidal Clams	WDFW
Tech Report 79 species locations: "ClamSoft" - Softshell Intertidal Clams	WDFW
Tech Report 79 species locations: "ClamSubt" - Subtidal clams	WDFW
Tech Report 79 species locations: "Crabs" - Dungeness and Red rock crabs	WDFW
Tech Report 79 species locations: "Cucumber" - sea cucumber	WDFW
Tech Report 79 species locations: "Octopus" - Pacific giant octopus	WDFW

Tech Report 79 species locations: "OystDril" - Oyster drills	WDFW
Tech Report 79 species locations: "Oyster" - Pacific oysters	WDFW
Tech Report 79 species locations: "Oyster_C"- Introduced Pacific oysters	WDFW
Tech Report 79 species locations: "Razrclam" - Razor clams	WDFW
Tech Report 79 species locations: "Sclop_PS" - Pink and spiny scallops	WDFW
Tech Report 79 species locations: "Sclop_Rk" - Rock Scallops	WDFW
Tech Report 79 species locations: "ShrmpBur" - Burrowing shrimp	WDFW
Tech Report 79 species locations: "ShrmpPan" - Pandalid shrimp	WDFW
Tech Report 79 species locations: "Urchin" - sea urchin	WDFW
Bottom Trawl Survey	WDFW
Drop Camera Survey	WDFW
Dive Surveys	WDFW
ROV Surveys	WDFW
Rocky habitat maps	Dr. Gary Greene, Tombolo Institute
Coastal tagging project	WDFW
Coastal trawl logbooks	PacFIN
Coastal underwater video surveys	WDFW
Puget Sound Test Fishery Chinook Encounters	WDFW
Puget Sound Recreational Fishery Boat Effort Distribution	WDFW
Puget Sound seabird monitoring	WDFW
Outer Coast seabird monitoring	WDFW
Pigeon Guillemot Colony surveys	WDFW
marbled murrelet at sea survey data	USGS,WDFW,USFWS
marine mammal database	NOAA
marina mammal stranding database	NOAA
Seaduck and waterfowl harvest database	WDFW
Cormorant surveys	USFWS
Seabird Colony monitoring	WDFW
mid winter waterfowl surveys	WDFW, USFWS
Heritage Data base	WDFW
UW/NANOOS:	
PRISM Cruises (Puget Sound Regional Synthesis Model)	University of Washington
HCDOP (Hood Canal Dissolved Oxygen Program)	Hood Canal Salmon Enhancement Group
ORCA Depth-Profiling Buoys	ORCA/UW

Puget Sound POM model	University of Washington
NANOOS NVS Near-real-time Asset Inventory	Many entities; aggregated by NANOOS
NANOOS NVS Near-real-time Asset Inventory	Many entities; aggregated by NANOOS
Admiralty Inlet NNMREC Project	Admiralty Inlet NNMREC Project
High-Frequency Radar Surface Currents	NANOOS/Oregon State Univ.
SoundToxins	SoundToxins, NOAA
NOAA NOS/CO-OPS Tide Network	NOAA
CDIP Wave Buoys	CDIP