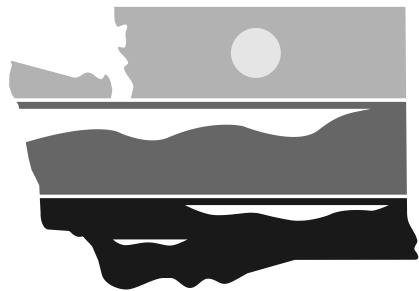


**Washington State
Coastal Zone Management
Section 309 Assessment and Strategy, 2011-2015**

Shorelands and Environmental Assistance Program



DEPARTMENT OF
ECOLOGY
State of Washington

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Glossary

CZMA: Coastal Zone Management Act (a federal law)

GHEMP: Grays Harbor Estuary Management Plan

GMA: Growth Management Act (a Washington State law)

NCMPMS: National Coastal Management Performance Measure System

NOAA: National Oceanic and Atmospheric Administration

OCRM: Office of Ocean and Coastal Resource Management, a branch of the National Oceanic and Atmospheric Administration which implements the federal Coastal Zone Management Act

RCW: Revised Code of Washington (state regulations adopted by state agencies pursuant to a state law (RCW))

SEPA: State Environmental Policy Act (Washington State law)

SMA: Shoreline Management Act (Washington State law)

SMP: Shoreline Master Program

WAC: Washington Administrative Code (state laws enacted by the legislature)

Guidelines: Shoreline Master Program Guidelines Rule (WAC adopted in December 2003)

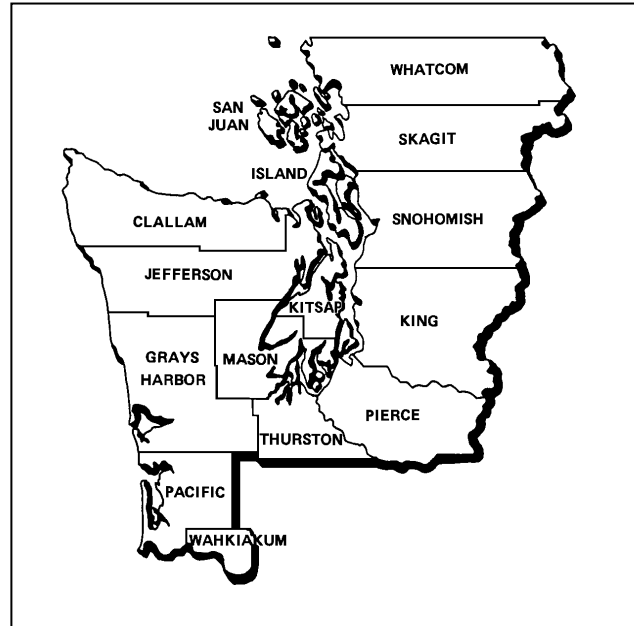
Introduction

Washington is one of thirty-four states with a federally approved Coastal Zone Management Program under the federal Coastal Zone Management Act (CZMA) of 1972. Washington's Coastal Zone Management Program (CZMP), approved in 1976, applies to the fifteen coastal counties as shown at the right.

The Office of Ocean and Coastal Resource Management (OCRM) of the National Oceanic and Atmospheric Administration (NOAA) administers the CZMA.

The Coastal Zone Management Section 309 Improvement Grants Program was initiated by Congress in its 1990 reauthorization of the CZMA, and expanded in its 1995

reauthorization. Congress has set aside special funding to encourage the states to make improvements to their federally approved coastal zone management programs in one or more of nine specific improvement areas:



1. Protection, restoration, or enhancement of the existing **coastal wetlands** base, or creation of new coastal wetlands.
2. Preventing or significantly reducing threats to life and destruction of property by eliminating development and redevelopment in **coastal high hazard areas**, managing development in other hazard areas, and anticipating and managing the effects of potential sea level rise.
3. Attaining increased opportunities for **public access**, taking into account current and future public access needs, to coastal areas of recreational, historical, aesthetic, ecological, or cultural value.
4. Reducing **marine debris** entering the Nation's coastal and ocean environment by managing uses and activities that contribute to the entry of such debris
5. Development and adoption of procedures to assess, consider, and control **cumulative and secondary impacts of coastal growth and development**, including the collective effect on various individual uses or activities on coastal resources, such as coastal wetlands and fishery resources.
6. Preparing and implementing **special area management plans** for important coastal areas.
7. Planning for the use of **ocean resources**.

8. Adoption of procedures and enforceable policies to help facilitate the **siting of energy and government facilities**, which may be of greater than local significance.
9. Adoption of procedures and policies to evaluate and facilitate the siting of public and private **aquaculture facilities** in the coastal zone, which will enable States to formulate, administer, and implement strategic plans for marine aquaculture.

Federal law and regulation strictly define and limit “program improvements”. OCRM defines program improvements to be:

1. A change to coastal zone boundaries;
2. New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;
3. New or revised local coastal programs and implementing ordinances;
4. New or revised coastal land acquisition, management, and restoration programs;
5. New or revised Special Area Management Plans (SAMP) or plans for Areas of Particular Concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,
6. New or revised guidelines, procedures and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government and other agencies that will result in meaningful improvements in coastal resource management.

Program implementation activities that meet the following general criteria are also eligible for section 309 funding:

1. Must relate to one or more 309 Program changes
2. Must be a component of the activity that measures, within two years, how it will improve effectiveness of the program
3. Must be cost effective

Within these general requirements, eligible program implementation activities include:

1. Administrative actions to carry out and enforce program change policies, authorities and other management techniques including the development, collection, and analysis of measurable management objectives and performance indicators
2. Equipment purchases related to the program change
3. Allowable costs as determined in accordance with the provisions of OMB Circular A-87: Cost Principles for State and Local Governments

Section 309 priorities do not directly determine the overall goals of Washington’s CZMP, but rather supplement them. Federal rules and policies for implementation of the 309 Program require identification of one or more improvement areas in which a state will be eligible to receive grants. Therefore, the strategies contained in this document should not be taken to be

the sole priorities of the Washington CZMP, but rather those priorities identified that fit within the constraints of the Section 309 regulations.

Since the inception of the 309 Program in 1991, Washington has worked in the following three areas:

1. Cumulative and Secondary Impacts of Growth
2. Coastal Hazards
3. Special Area Management Planning

This fifth assessment reviews progress in these three areas plus the status of the other six areas. Based on this new assessment, we will propose priority areas for improvements to Washington's Coastal Zone Management Program during the fifth 309 funding phase (2011-2015).

This assessment and strategy follows the outline of a required template provided by OCRM. Assessment and strategy questions are reprinted in this document so that readers may understand why the data is presented in this particular format.

Public Review Process

A number of Ecology staff and representatives of other state agencies participated in the development of the draft assessment and strategy. As required by OCRM, Ecology made this document available for public comment. The draft document was posted on our web site and a notice of public comment period was circulated to several email listservs whose subscribers have expressed an interest in coastal management issues. The public comment period was open from September 3rd through October 7th.

Ecology received five formal comment letters. Comments were considered in revising the draft document. Because of the number of letters received and the variety of issues of concern, we have included comments drawn from these letters, as well as our specific responses, in Appendix A of this document.

Summary of Completed Section 309 Efforts

This chapter summarizes Washington's past 309 Program efforts. Due to Legislative mandates and increasing growth and development of our shorelines, the greatest emphasis of these efforts was updating the implementation of Washington's Shoreline Management Act (SMA).

There have been four "rounds," or phases, of implementation of the Section 309 Improvements Program. Final Section 309 Assessment and Strategy documents for each of these rounds can be found on our website at: <http://www.ecy.wa.gov/programs/sea/czm/309-improv.html>.

- Round 1 from 1992 - 1996

- Round 2 from 1996 - 2001
- Round 3 from 2001 – 2005
- Round 4 from 2006 – 2010

Round 1: 1992 – 1996

Throughout the first 309 Program phase, Washington State worked in two 309-improvement areas:

1. Cumulative and Secondary Impacts
2. Coastal Hazards

Cumulative and Secondary Impacts of Growth

Under this improvement area, the state addressed the need to better integrate local and state government implementation of the 1971 SMA with the newly adopted Growth Management Act (GMA) of 1990 (and 1991 amendments).

Coastal Hazards

Washington’s second focus was the Coastal Erosion Management Study (CEMS), which addressed Puget Sound coastal erosion management, the impacts of shoreline armoring, and policy alternatives to minimize the adverse effects. CEMS followed three research threads:

1. Appropriate engineering and geotechnical approaches to erosion management and bluff stabilization
2. Adverse environmental effects of those practices
3. Public policy alternatives

We incorporated the results from the work in these two 309-improvement areas into the Shoreline Master Program Guidelines Rule (Guidelines) adopted in December 2003.

Round 2: 1996 – 2001

During the second 309 Program phase, Washington State worked in three, 309-improvement areas:

1. Cumulative and Secondary Impacts
2. Coastal Hazards
3. Special Area Management Planning

Cumulative and Secondary Impacts

Ecology’s Section 309 Growth Management Project steadily evolved to meet changing legislative mandates and local government needs. Initially Ecology designed the project to respond to the overlapping requirements of the 1990 GMA, the 1991 GMA Amendments, and the SMA. By 2000, in response to legislative regulatory reform mandates and Endangered Species Act listings, the Growth Management Project emphasis had shifted. The goals that addressed the cumulative and secondary impacts resulting from land use practices in sensitive coastal areas remained unchanged, however. They were:

- To foster consistency at the local government level between GMA-mandated comprehensive plans
- To create development regulations
- To develop or update Critical Areas Ordinances
- To comprehensively update SMA-mandated local Shoreline Master Programs (SMPs)

In 1995, the Washington State legislature adopted legislation amending the SMA as a part of a broad regulatory reform effort aimed at achieving better integration of GMA, SMA, and the State Environmental Policy Act (SEPA). While not changing the broad goals of the SMA, this legislation did require changes to all of the SMA implementation rules.

Consequently, the emphasis of the Growth Management Project shifted beginning with the 1995-96 fiscal year. Throughout the 1995-97 period, the Growth Management Project placed emphasis on amending the SMA implementation rules. Accordingly, in September 1996, Ecology adopted the SMP Approval and Amendment Procedures rule (WAC 173-26) and the Shoreline Management Permit and Enforcement rule (WAC 173-27). Additionally, the wetlands delineation manual rule was adopted in February 1997.

The proposed Guidelines produced significant controversy and, as a result, these regulations were not adopted in 1997 as anticipated. Many raised questions about the proper relationship between the SMA and GMA, the content of the Guidelines and extent of the changes from the existing Guidelines. A subcommittee, the State Land Use Study Commission, first debated these issues. Later, a broad based Shorelines Guidelines Commission did the same.

The potential listing of certain native fish species under the federal Endangered Species Act surfaced as another controversial issue at the same time. While this provided some momentum towards action on the Guidelines, in the end, this issue only further complicated the task. The Guidelines Commission recommended adoption of a set of Guidelines, though it was not a consensus decision of the Commission. The proposed Guidelines were submitted for formal public review and comment. Ecology received substantial comments in writing and in the public hearings. Based on these comments, Ecology began a redrafting process. The new draft provided two alternative approaches:

1. A more flexible, policy driven approach (Path A)
2. A more prescriptive approach (Path B)

Endorsed by the National Marine Fisheries Service (NMFS) and US Fish and Wildlife Service (USFWS), Path B provided the certainty of protecting the listed fish species that require protection.

Ecology released this set of Guidelines for formal public review during 2000 and subsequently adopted them on November 29, 2000. The Association of Washington Business (joined by a coalition of business and industry associations and some local governments) promptly appealed

the adoption of the new rules to the Shorelines Hearings Board. The Washington Environmental Council led a coalition that intervened on behalf of the Department of Ecology in supporting the adopted rule. (Continued in Round 3 section.)

Coastal Hazards

As a follow-up to the Round 1 CEMS project, Ecology carried out an inventory and characterization of alternatives to traditional shoreline armoring. Over thirty beach nourishment projects in Puget Sound were documented, illustrating a wide variety of techniques. The project reporting provided the consulting community, local governments, and resource managers with information on the design and management of beach nourishment projects, and other adaptive management alternatives to armoring. The Shoreline Master Program Guidelines Rule (Guidelines) adopted in December 2003 incorporated the results of this work.

Special Area Management Planning

As mandated in the original Grays Harbor Estuary Management Plan (GHEMP), the Grays Harbor Council of Governments (COG) reconvened the GHEMP Task Force for a five-year plan review and update. While work progressed on basic plan elements, fundamental questions emerged regarding over-all plan value and effectiveness.

As the GHEMP Task Force reviewed, streamlined, and updated various sections of the plan, major policy and regulatory shifts were surfacing from state and federal agencies, which presented potentially substantive effects upon the update effort.

The anticipated Endangered Species Act (ESA) listing of one or more anadromous fish species within Grays Harbor and the resulting “4d” rulings, plus the proposed amendment of the state SMA Guidelines for local SMPs, created a problematic situation for the update. With the status, degree of impact, and timing unclear for the aforementioned efforts, continuing the GHEMP update became increasingly futile. The Task Force decided to place the update effort on hold pending clarification of impacts resulting from the ESA listings and the SMA Guideline amendment. The Department of Ecology concurred.

Round 3: 2001 – 2006

During the third 309-improvement program phase, Washington State worked on one Improvement Area.

Cumulative and Secondary Impacts of Growth

Throughout 2000, adoption of the new rule remained controversial, especially regarding the dual path approach (Path A and Path B). In December 2000, the Washington Association of Business (AWB) — representing a coalition of business organizations, cities, and counties — and the Washington Aggregates and Concrete Association appealed the new Guidelines rule to the Shoreline Hearings Board (SHB). The Washington Environmental Council (WEC) led an environmental coalition that intervened in support of the Guidelines.

The SHB, in a split decision on August 27, 2001, ruled that Ecology had failed to properly conduct the rule review process and that certain provisions of Path B exceeded Ecology's statutory authority. The ruling invalidated the new Guidelines, but did not invalidate Ecology's repeal of the previous rule (WAC 173-16). This left the state with no shoreline master program Guidelines rule. Existing local master programs remained in effect.

Quickly, parties to the original SHB appeal moved to appeal the SHB decision to Thurston County Superior Court. However, Ecology director Tom Fitzsimmons believed that mediation would be more beneficial than lengthy litigation. The Governor and the Attorney General convened mediation talks aimed at reaching a negotiated settlement. Mediators were selected and the parties to the lawsuit appointed representatives. These mediated negotiations extended from early 2001 through late 2002.

By autumn 2002, the parties negotiated and completed a new draft SMP Guidelines rule. Shortly after that, all the other necessary agreements (e.g. funding and local adoption schedules) were in place. The parties entered into a formal settlement agreement on December 20, 2002.

In January 2003, in conformance with the settlement agreement, Ecology initiated the public process for formal adoption of the negotiated settlement draft Guidelines rule. In July, Ecology released drafts of the rule, plus the associated environmental and economic assessment documents, for public review and comment. Ecology responded to comments by expanding and/or clarifying the economic and environmental assessment documents, and by making minor clarifications to the rule itself. Ecology formally adopted the rule on December 17, 2003. It took effect on January 17, 2004.

As the Guidelines rule adoption process neared completion, the 2003 State Legislature amended the SMA to extend the local government deadlines for updating their Shoreline Master Programs (SMPs). The new SMP Guidelines outlined a sliding schedule through 2014 for completion of all SMPs.

Additionally, the Legislature appropriated \$2 million of state general fund monies for the 2003-05 biennium. The Legislature also committed to providing local governments with "reasonable and adequate" future funding through 2014.

Ecology submitted the new SMP guidelines to OCRM for inclusion in our CZMP on October 6, 2004. OCRM began reviewing the guidelines and issued preliminary approval on July 29, 2005. OCRM determined that it would need to complete a National Environmental Policy Act (NEPA) process for this action and that final approval would follow the completion of this process. OCRM subsequently initiated the NEPA process and began preparing an Environmental Impact Statement (EIS).

Following adoption of the Guidelines, Ecology developed and implemented a process for dispersing the funds for comprehensive SMP updates to the statutorily defined “early adopter” local governments. These included Whatcom and Snohomish counties, the cities of Port Townsend and Bellingham. In addition, Ecology solicited grant applications and selected 12 different local governments from across the state (four counties and eight cities, half of these in the coastal zone) to receive the remaining funding.

The actions of the State Legislature set in motion a major new effort to update all 263 local SMPs (133 of these in the coastal zone) across the state, with a corresponding workload for Ecology and local governments. This effort to update SMPs will happen over the next five years and beyond - on a seven-year review cycle.

In the process, Ecology is obliged to work in partnership with and support local governments as they complete their individual SMP updates. This has required Ecology to prepare a wide variety of new policy and technical guidance materials. Additionally, Ecology must conduct training and outreach for local government planners and their consultants and provide targeted guidance on acceptable methodologies for completing the shoreline inventories and analyses that form the basis for the local SMP updates.

In addition to maintaining this level of technical assistance to local governments and citizens, Ecology is now in the process of dispersing an additional \$4 million in grant funds for a new round of local government SMP updates. This level of effort is expected to continue for at least the next three biennia.

Round 4: 2006 – 2010

During the fourth 309-improvement program phase, Washington State again worked on one Improvement Area.

Cumulative and Secondary Impacts of Growth

From 2006 to 2010, Ecology and local governments have worked to implement the new SMP Guidelines. Using Section 309 funds, Ecology has developed guidance, provided technical assistance, and reviewed draft and final SMPs.

In order to assist local governments in developing their SMPs, Ecology staff have produced guidance on a variety of subjects relevant to the planning process including GMA/SMA integration, shoreline armoring, and intertidal shellfish aquaculture. These guidance pieces have been presented to local governments on our website and at quarterly meetings hosted by Ecology where all local governments updating their SMPs gather to learn more about the planning process.

Ecology staff have also been working for the past 3 years on developing a handbook for local governments updating their SMPs. Several chapters are now finalized and available on Ecology’s website. As of August 1, 2010, completed chapters include:

- Chapter 4 - No Net Loss of Shoreline Ecological Functions
- Chapter 5 – Shoreline Jurisdiction
- Chapter 6 – Public Participation
- Chapter 7 – Shoreline Inventory and Characterization
- Chapter 17 - Cumulative Impacts Analysis
- Nonconforming Uses and Development Guidance section (to be included in the future Administrative Provisions chapter)
- Appendix A: Addressing Sea Level Rise in Shoreline Master Programs

Staff in Ecology’s regional offices have provided technical assistance to all local governments working on SMPs in the coastal zone. Typically this assistance involves consulting with local planners on interpreting the guidelines, sharing lessons learned from other jurisdictions farther along in the update process, and pointing out data and other resources that can inform the SMP. Regional staff then also review draft SMP products as they are developed, and work with headquarters staff to conduct the final SMP review and approval process.

As of August 1, 2010, Ecology has approved 17 SMPs in the coastal zone: Anacortes, Auburn, Coupeville, Darrington, Everett, Ferndale, Kent, Kirkland, Marysville, Monroe, Orting, Port Townsend, Redmond, Sultan, Sumner, Whatcom County, and Woodinville. Five more SMPs (Des Moines, Jefferson County, Sammamish, SeaTac, and Tukwila) have been formally submitted to Ecology for review and approval. An additional 100 local governments are actively working on their SMP updates, and 16 more will begin work on their SMPs during the 2011-2013 biennium.

Ecology intends to submit all approved SMPs in the coastal zone to OCRM for approval and inclusion in our CZMP. However, these submissions have not yet been sent to OCRM as we must wait until OCRM has granted final approval of our SMP Guidelines as part of our CZMP. This approval has been delayed pending completion of the NEPA process initiated and described in the previous round. Upon approval of the Guidelines, we will begin to submit all SMPs approved since 2004 to OCRM.

Enhancement Area Assessments

Wetlands

Section 309 Enhancement Objective

Protection, restoration, or enhancement of the existing coastal wetlands base, or creation of new coastal wetlands

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

1. Please indicate the extent, status, and trends of wetlands in the coastal zone using the following table:

Wetlands type	Estimated historic extent (acres)	Current extent (acres)	Trends in acres lost since 2006 (Net acres gained & lost)	Acres gained through voluntary mechanisms since 2006	Acres gained through mitigation since 2006	Year and source(s) of Data
Tidal vegetated	Estimates of pre-settlement wetland acreage range from 1.17 to 1.53 million acres, depending on information and research assumptions used	202,000	Unknown	Unknown	0	Current extent source: 1988 US Fish and Wildlife Service Inventory Acres gained through mitigation source: Ecology's wetlands mitigation banking program
Tidal non-vegetated		27,000	Unknown	Unknown	0	
Non-tidal/freshwater		709,000 ¹	Unknown	Unknown	40.92	
Other (please specify)						

2. If information is not available to fill in the above table, provide a qualitative description of information requested, including wetlands status and trends, based on the best available information.

¹ This data is for the entire state of Washington. Coastal Zone specific data is unavailable.

Current Extent of Wetlands and Trends in Acres Lost

Ecology's wetlands section has also identified the need to characterize trends in overall wetlands losses or gains. In early 2010, staff applied for a grant from the US EPA to work with NOAA to develop a strategy to identify the best data sources and methods to map and monitor wetlands in the Puget Sound area. The project would fund an effort to compile the necessary data on wetlands, perform wetlands classification, and validate these efforts. This grant is part of the US EPA's investment in the recovery of Puget Sound. Grant awards are expected to be announced in late 2010. If this project is funded, eventually it could be expanded to include the three coastal zone counties not included in the Puget Sound study.

Acres Gained Through Voluntary Mechanisms

Ecology currently has no way of measuring wetlands gained through voluntary mechanisms, since these efforts are not tied to our permitting scheme. However, restoration plans developed as part of the comprehensive SMP update process may lead to better local government tracking of voluntary restoration. This might lead to the ability to collect data on this topic in future years.

Acres Gained Through Mitigation

Since 2005, Ecology's Mitigation Banking program has certified 8 banks for use as project mitigation in the coastal zone. Several of these banks were established as pilot banks before a formal rule was established; as a result their reporting requirements are less specific than for the banks established since the rule was adopted in September 2009. Newly certified banks will report on credits used by year, allowing the Wetlands program to track acreage of mitigation used for each bank.

The following table shows credits used to date in the four banks reporting under this rule in the coastal zone (comprising the number reported in the above table):

Bank name	Total acreage	Acre on the ground per credit	Total Credits Used	Acres used at the bank
Nookachamps	284.9	2.82	0.986	2.78
Skykomish Habitat	172	1.52	4.97	7.55
Snohomish	202.4	1.24	15.326	19.00
Springbrook	129.37	2.86	4.0475	11.58
Total	788.67	N/A	25.3295	40.92

Going forward, we will be able to more fully report on acres gained through mitigation for banks certified under the mitigation banking rule, however we do not yet have data available to report on this measure.

In addition, other mitigation efforts occur that are not part of Ecology’s mitigation banking program. For example, many permits require mitigation for wetland impacts. In the past, Ecology has received grant funds from the EPA to track this required mitigation. However, upon the completion of those grants and in the face of severe budget issues at the state, it is no longer possible to dedicate staff time to tracking this measure.

3. Provide a brief explanation for trends.

According to a 1996 US Fish and Wildlife Service publication, the main historical causes of wetland loss and degradation in Washington state are agricultural expansion into wetlands and port and industrial development along low-lying shorelines. The major causes of continuing loss and degradation of wetlands are urban expansion, forestry and agricultural practices, and invasive species.

4. Identify ongoing or planned efforts to develop monitoring programs or quantitative measures for this enhancement area.

In addition to the grant proposal mentioned above which will allow Ecology to track changes in wetlands over time, Ecology is also exploring ways to develop a wetlands monitoring program. Ecology has expressed interest in participating in the EPA’s wetland monitoring project. The first stage of this project is to collect data to test the national draft monitoring protocols. Ecology will submit a formal application to participate in this project after an RFP is issued, likely toward the end of 2010.

5. Use the following table to characterize direct and indirect threats to coastal wetlands, both natural and man-made. If necessary, additional narrative can be provided below to describe threats.

Type of threat	Severity of Impacts (H,M,L)	Geographic scope of impacts (extensive or limited)	Irreversibility (H,M,L)
Development/Fill	H	Extensive	H
Alteration of hydrology	H	Extensive	M
Erosion	L	Limited	M
Pollution	M	Extensive	M
Channelization	L	Limited	M
Nuisance or exotic species	M	Limited	M
Freshwater input	L	Limited	M
Sea level rise	M	Limited	H
Other (please specify)			

6. (CM) Indicate whether the Coastal Management Program (CMP) has a mapped inventory of the following habitat types in the coastal zone and the approximate time since it was

developed or significantly updated

Habitat type	CMP has mapped inventory (Y or N)	Date completed or substantially updated
Tidal Wetlands	Y	2009 (PSNERP Data)
Beach and Dune	Y	2009 (PSNERP Data)
Nearshore	Y	2009 (PSNERP Data)
Other (please specify)		

The CZM program does not maintain statewide habitat maps. However, several other entities have mapped inventories of these habitats for either the Puget Sound area or the entire coastal zone. Tidal wetlands data was mapped for the entire coastal zone as part of NOAA’s Coastal Change and Analysis Program (C-CAP). The Puget Sound Nearshore Partnership (PSNERP), lead by Washington State Department of Fish and Wildlife and the U.S. Army Corps of Engineers, has developed a geodatabase in support of their Puget Sound Nearshore General Investigation. This database was developed to investigate the fundamental causes of ecosystem decline due to human change to natural nearshore processes along Puget Sound's shoreline. It includes wetlands, beach, and nearshore mapping for the entire Puget Sound and the U.S. portion of the Strait of Juan de Fuca.

In addition, all local jurisdictions within the coastal zone are or soon will be updating their shoreline master programs, which are enforceable policies of Washington's CZMP. Each local jurisdiction is required to conduct an inventory and characterization of its shoreline, including land use and habitat type. In this way, Washington's shorelines are mapped and inventoried, however this is not done on a statewide basis.

7. (CM) Use the table below to report information related coastal habitat restoration and protection. The purpose of this contextual measure is to describe trends in the restoration and protection of coastal habitat conducted by the State using non-CZM funds or non Coastal and Estuarine Land Conservation Program (CELCP) funds. If data is not available to report for this contextual measure, please describe below actions the CMP is taking to develop a mechanism to collect the requested data.

Contextual measure	Cumulative acres for 2004-2010
Number of acres of coastal habitat restored using non-CZM or non-Coastal and Estuarine Land Conservation Program (CELCP) funds	113,093
Number of acres of coastal habitat protected through acquisition or easement using non-CZM or non-CELCP funds	43,175

The above information was obtained through personal communication with staff from Pacific Coast Joint Venture, an organization that works with partners throughout Washington’s coastal

zone to protect and acquire wetland and other habitats. Partners include several Washington state agencies (including Ecology), local governments, land trusts, and other nonprofit agencies.

Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

1. For each of the wetland management categories below, indicate if the approach is employed by the state or territory and if significant changes have occurred since the last assessment:

Management categories	Employed by state/territory (Y or N)	Significant changes since last assessment (Y or N)
Wetland regulatory program implementation, policies, and standards	Y	Y
Wetland protection policies and standards	Y	N
Wetland assessment methodologies (health, function, extent)	Y	N
Wetland restoration or enhancement programs	Y	N
Wetland policies related public infrastructure funding	N	N
Wetland mitigation programs and policies	Y	Y
Wetland creation programs and policies	N	N
Wetland acquisition programs	Y	N
Wetland mapping, GIS, and tracking systems	Y	N
Special Area Management Plans	Y	N
Wetland research and monitoring	N	N
Wetland education and outreach	Y	N
Other (please specify)		

2. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.

- a) Characterize significant changes since the last assessment;
- b) Specify if it was a 309 or other CZM-driven change (specify funding source) or if it was driven by non-CZM efforts; and
- c) Characterize the outcomes and effectiveness of the changes.

Wetland Regulatory Program Implementation, Policies, and Standards

Two state laws, the State Water Pollution Control Act and the Shoreline Management Act, give Ecology the authority to regulate wetlands. Ecology also uses the State Environmental Policy Act (SEPA) process to identify potential wetland-related concerns early in the permitting

process. Wetland specialists in the regions review applications for projects that have the potential to impact wetlands and other "waters of the state."

The 133 jurisdictions in the coastal zone are either in the process of updating their SMPs or will begin the process soon. All of these jurisdictions receive technical assistance from Ecology regional planners funded in part with 309 dollars. 309 funding has helped staff to devote more time to technical assistance for these jurisdictions, ensuring their SMP updates are completed according to the Guidelines. These updated SMPs will ensure "no net loss" of ecological function, helping to protect and restore wetlands throughout the coastal zone.

Ecology also provides technical assistance to local governments under the Growth Management Act. This includes assistance in developing comprehensive plan policies and development regulations, and in implementing local wetland regulations.

The updated SMPs represent a 309 change. Other wetlands work is funded in part with Section 306 grant funds.

Wetland Mitigation Programs and Policies

Wetland Mitigation Banking

Ecology developed a wetland mitigation banking program in conjunction with the US EPA and the US Army Corps of Engineers. A wetland mitigation bank is a site where wetlands are restored, created, enhanced or preserved. A bank is established to generate increases in wetland function called credits that can be used or sold to provide compensation for unavoidable wetland losses. This ensures the success of the mitigation before unavoidable damage occurs at another site.

Banking staff are developing guidance on the certification process, outreach and training for local governments, and checklists and templates to streamline the certification process. Eight banks have been certified by participating agencies and will continue to be monitored to ensure that they perform successfully. An additional six bank proposals are in the process of review.

This is not a 309-driven change, but was funded in part with Section 306 funding. As banks are certified by Ecology, they will be monitored for effectiveness and compliance with the mitigation banking rule.

In Lieu Fee mitigation

In lieu fee mitigation programs provide a readily accessible option for compensatory mitigation for applicants with unavoidable impacts to wetlands. In Lieu Fee programs are established to collect fees for mitigation and then complete mitigation projects. In Lieu Fee programs are similar to banks where an applicant pays a third party to assume their mitigation responsibility. Unlike banks, In Lieu Fee projects are generally not on the ground prior to impacts occurring. Staff are currently working with the US Army Corps of Engineers and the Environmental Protection Agency on three proposed In Lieu Fee programs in the Puget Sound region.

This is not a 309-driven change, but was funded in part with Section 306 funding.

3. (CM) Indicate whether the CMP has a habitat restoration plan for the following coastal habitats and the approximate time since the plan was developed or significantly updated.

Habitat type	CMP has a restoration plan (Y or N)	Date completed or substantially updated
Tidal (Great Lake) Wetlands	N	N/A
Beach and Dune	N	N/A
Nearshore	N	N/A
Other (please specify)		

Ecology does not have a statewide habitat restoration plan. However, as part of updating new SMPs, each local government is required to develop a comprehensive restoration plan for their jurisdiction. In this way, the entire coastal zone will be represented in one or more jurisdiction's restoration plans when the update process is complete.

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could be addressed through the Coastal Management Program and partners (not limited to those items to be addressed through the Section 309 Strategy). If necessary, additional narrative can be provided below to describe major gaps or needs.

Gap or need description	Select type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H, M, L)
1. Updated local SMPs with clear wetlands regulations shaped by current scientific information	Regulatory, policy	H
2. Trend data for wetland losses and gains	Data	H
3. Wetland condition monitoring	Data and Capacity	M
4. Analysis and use of watershed characterizations	Data, Regulatory, Capacity, Training	H
5. Use of watershed approach	Policy, training	M
6. Ecosystem services	Policy, Regulatory	M

recognition and valuation		
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Enhancement Area Prioritization

1. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

- High X
- Medium _____
- Low _____

Briefly explain the level of priority given for this enhancement area.

Wetlands management continues to be a high priority for Ecology at the agency level. Because of this, the work has received support from state general fund revenues and external grants, largely from the US EPA. CZM funds continue to support the provision of scientific, technical, and planning assistance to local governments, but generally the work of the wetlands section is considered a medium priority for the CZMP compared to other enhancement areas.

2. Will the CMP develop one or more strategies for this enhancement area?

- Yes X
- No _____

Briefly explain why a strategy will or will not be developed for this enhancement area.

Wetlands work at Ecology is funded under numerous other statewide funding sources. Much of our wetland permitting and technical assistance to local governments work is included under our 306 funding. However, because wetlands are addressed in SMP updates, this enhancement area is included in our strategy for Cumulative and Secondary Impacts of Growth, which includes our work plan to update and begin implementation of all SMPs in the coastal zone by 2015.

Coastal Hazards

Section 309 Enhancement Objective

Prevent or significantly reduce threats to life and property by eliminating development and redevelopment in high-hazard areas, managing development in other hazard areas, and anticipating and managing the effects of potential sea level rise and Great Lakes level change

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

1. Characterize the level of risk in the coastal zone from the following coastal hazards: (Risk is defined as: “the estimated impact that a hazard would have on people, services, facilities and structures in a community; the likelihood of a hazard event resulting in an adverse condition that causes injury or damage.” Understanding Your Risks: Identifying Hazards and Estimating Losses. FEMA 386-2. August 2001)

Type of hazard	General level of risk (H,M,L)	Geographic Scope of Risk (Coast-wide, Sub-region)
Flooding	High	Throughout the coastal zone, but particularly high in certain river basins
Coastal storms, including associated storm surge	Medium	Outer coast storms are generally stronger than those in Puget Sound
Geological hazards (e.g., tsunamis, earthquakes)	High	Active fault lines off the outer coast and in Puget Sound make these risks high throughout the coastal zone
Shoreline erosion (including bluff and dune erosion)	Medium	Coast-wide
Sea level rise and other climate change impacts	Medium	Throughout the Coastal Zone
Land subsidence	Low	Lower on outer coast than in Puget Sound
Other (Landslides)	High	Highest in developed areas of Puget Sound
Other (Volcano and associated ash fall and lahars)	High	Highest in the areas closest to the state’s 5 active volcanoes (Mt. Rainier, Mt. Baker, Glacier Peak, Mt. Saint Helens, Mt. Adams), although lahars, debris in rivers, and ash fall can affect remote areas)

2. For hazards identified as a high level of risk, please explain why it is considered a high level risk. For example, has a risk assessment been conducted, either through the State or Territory Hazard Mitigation Plan or elsewhere?

Flooding, Geological Hazards, Landslides, Volcano Hazards

In November 2007 the Washington Military Department's Emergency Management Division published an updated State Hazard Mitigation Plan

(http://www.emd.wa.gov/plans/washington_state_hazard_mitigation_plan.shtml

). This plan identified four hazards which were of particular concern to the state: earthquakes, flooding, severe storms, and wildland fires. This was based on the likelihood of occurrence and the extent of impacts of these four hazards as compared to other potential hazards. Since wildland fires constitute more severe hazards outside the Coastal Zone than within it, that hazard is not included in this assessment. Additionally, though the EMD report classifies severe storms as of particular concern to the state, that assessment is not limited to coastal storms and also includes winter storms in central and eastern Washington. This assessment classifies coastal storms as a medium hazard overall, though some storms may have severe effects. This assessment does also classify earthquakes (and tsunamis) and flooding as high levels of risk. In addition, this assessment also classifies impacts, landsliding, and volcanoes and related hazards as high risks, since these hazards are particularly high risks to coastal communities.

3. If the level of risk or state of knowledge of risk for any of these hazards has changed since the last assessment, please explain.

Risk from flooding has been classified as "high" in this assessment though it was classified as "medium" in the last assessment. This is because in the last assessment only coastal flooding was considered, while this assessment takes into account flood hazards throughout the coastal zone. Risk from sea level rise and other climate change impacts has also been shifted from a "medium" to "high" level of risk. This is because this assessment takes into account many different risks pose by climate change, not just sea level rise. In addition, since the last assessment there have been numerous studies by academic and agency scientists on the risks posed to Washington's coastal zone by climate change.

4. Identify any ongoing or planned efforts to develop quantitative measures of risk for these hazards.

The CZM Program has no planned efforts to develop quantitative measures of risk for these hazards. However, several efforts to quantify risk surrounding hazards, particularly flooding and erosion, are occurring in Washington state. Ecology's participation in FEMA's RiskMAP program entails reporting risks of erosion due to high water events and flooding to FEMA. The next step in this program will be to apply for funding to work with local governments to communicate these risks to coastal residents. In addition, Ecology is working with FEMA to collect LIDAR data for the outer coast and in some places in Puget Sound to inform updated flood hazard maps. outer coast – this will be used to re-map FEMA flood hazard maps for Grays Harbor & Pacific.

5. (CM) Use the table below to identify the number of communities in the coastal zone that have a mapped inventory of areas affected by the following coastal hazards. If data is not available to report for this contextual measure, please describe below actions the CMP is taking to develop a mechanism to collect the requested data.

Type of hazard	Number of communities that have a mapped inventory ²	Date completed or substantially updated
Flooding	133 ³	1996
Storm surge	0	N/A
Geological hazards - earthquakes	142	Varies
Geological hazards - tsunami	31 ⁴	2007
Shoreline erosion (including bluff and dune erosion)	133	Varies
Sea level rise	2 ⁵	2007
Land subsidence	0	N/A
Other (Landslides)	142	Varies
Other (Volcano and associated ash fall and lahars)	142	Varies

Flooding

All coastal zone communities at risk of flooding have flood maps developed by FEMA. Most maps date to 1996. FEMA is in the process of modernizing their flood maps and are releasing draft maps as they are completed.

Geological Hazards

Virtually every area of Washington’s Coastal Zone is subject to earthquake hazards. All communities required to develop Critical Areas Ordinances under the Growth Management Act are required to map areas at risk from earthquakes. For tsunami hazards, the number reported under this measure reflects coastal communities with tsunami inundation and evacuation maps as developed by the Washington State Department of Natural Resources and the Washington State Emergency Management Division (can be found online at

<http://www.dnr.wa.gov/ResearchScience/Topics/GeologyPublicationsLibrary/Pages/tsuevac.as>

² 142 represents the total number of cities, towns, and counties in the coastal zone that are required to adopt Critical Areas Ordinances under the GMA. 9 of these cities and towns are not required to adopt Shoreline Master Programs under the SMA because they have no shorelines of the state within their jurisdiction.

³ The communities listed under flooding, earthquakes, shoreline erosion, landslides, and volcano hazards are located in Clallam, Grays Harbor, Island, Jefferson, King, Kitsap, Mason, Pacific, Pierce, San Juan, Skagit, Snohomish, Thurston, Wahkiakum and Whatcom counties.

⁴ This represents the number of communities for whom the Washington Department of Natural Resources has completed tsunami hazard and evacuation route mapping. These communities are located largely on the outer coast and in northern Puget Sound, in Clallam, Grays Harbor, Jefferson, Pacific and Whatcom counties.

⁵ These communities are located in King and Thurston Counties.

px). Not all communities are required to plan under the SMA, this number includes unincorporated areas as well as Indian reservations not subject to Washington state laws.

Shoreline erosion, Landslides, Volcano Hazards

All communities required to develop Critical Areas Ordinances under the Growth Management Act are required to map areas at risk from shoreline erosion, landslides, and volcano hazards. Dates vary depending on when each particular jurisdiction last updated their Critical Areas Ordinance.

Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

1. For each of the management categories below, indicate if the approach is employed by the state or territory and if significant changes have occurred since the last assessment:

Management categories	Employed by state/territory (Y or N)	Significant changes since last assessment (Y or N)
Building setbacks/ restrictions	Y	Y
Methodologies for determining setbacks	N	N
Repair/rebuilding restrictions	Y	Y
Restriction of hard shoreline protection structures	Y	Y
Promotion of alternative shoreline stabilization methodologies	Y	Y
Renovation of shoreline protection structures	Y	Y
Beach/dune protection (other than setbacks)	Y	Y
Permit compliance	Y	N
Sediment management plans	Y	Y
Repetitive flood loss policies, (e.g., relocation, buyouts)	Y	N
Local hazards mitigation planning	Y	N
Local post-disaster redevelopment plans	N	N
Real estate sales disclosure requirements	Y	N
Restrictions on publicly funded infrastructure	N	N
Climate change planning and adaptation strategies	Y	Y
Special Area Management Plans	Y	N
Hazards research and monitoring	Y	N
Hazards education and outreach	Y	N
Other (please specify)		

2. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.

- a) Characterize significant changes since the last assessment;**
- b) Specify if it was a 309 or other CZM-driven change (specify funding source) or if it was driven by non-CZM efforts; and**
- c) Characterize the outcomes and effectiveness of the changes.**

Building Setbacks, Repair/rebuilding Restrictions, Restricting Hard Shoreline Armoring, Promoting Alternative Stabilization Techniques, Renovation of Shoreline Armoring Structures, and Beach or Dune Protection

All significant changes that have occurred in the management areas listed above of have been a result of our Shoreline Master Program Guidelines Rule adopted in December of 2003. Since the last assessment, local communities in the coastal zone have begun updating their Shoreline Master Programs (SMPs) in accordance with the guidelines. As of October 20, 2010, 17 coastal zone communities have adopted state-approved SMPs. This effort represents a 309 change.

Washington’s Ocean Action Plan (December 2006) also highlighted several recommendations for improving state management of coastal hazards, including areas such as coordination, data, research, training, and education.

Sediment Management Plans

Work on regional sediment management plans is described under the Ocean Resources improvement area.

Climate Change Planning and Adaptation Strategies

Ecology staff recently completed interim guidance on options for addressing sea level rise adaptation in SMPs. This guidance will be used by local governments to address the threat of sea level rise in SMPs. This is not a 309 change, but work on the sea level rise adaptation guidance was funded with 306 grant funds. More detailed guidance will be developed by a coastal management fellow beginning work in the fall of 2010. The agency continues to be involved in regional efforts to address the threats posed by climate change at the national, regional, and local levels.

3. (CM) Use the appropriate table below to report the number of communities in the coastal zone that use setbacks, buffers, or land use policies to direct development away from areas vulnerable to coastal hazards. If data is not available to report for this contextual measure, please describe below actions the CMP is taking to develop a mechanism to collect the requested data.

For CMPs that do not use state-established numerical setbacks or buffers to direct development away from hazardous areas, report the following:

Contextual measure	Number of communities
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Number of communities in the coastal zone that are required to develop and implement land use policies to direct development away from hazardous areas that are approved by the state through local comprehensive management plans.	133 ⁶
Number of communities that have approved state comprehensive management plans that contain land use policies to direct development away from hazardous areas.	17 ⁷

As mentioned earlier, there are 142 cities, towns, and counties in the coastal zone that are required to adopt Critical Areas Ordinances under the GMA. CAOs direct development away from hazardous and other sensitive areas. However, the state does not formally approve these CAOs, rather they are presumed valid upon local adoption. Therefore they have not been counted toward this measure. The numbers in this table reflect only Shoreline Master Programs, which are approved by Ecology.

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could be addressed through the Coastal Management Program and partners (not limited to those items to be addressed through the Section 309 Strategy). If necessary, additional narrative can be provided below to describe major gaps or needs.

Gap or need description	Select type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H, M, L)
1. Updated local SMPs with clear coastal hazards policies	Regulatory, policy	H
2. Enhanced sea level rise adaptation guidance	Policy	H
3. Several state agencies are involved with either collecting data on or managing hazards. Need better communication and coordination of these efforts.	Communication & outreach	M
4. Local governments need better access to data and guidance for using data on hazards for community decision-making.	Training, Capacity, Data, Communication & Outreach	M
5. Lack of consistent resources for gathering better data on range of coastal hazards (e.g. monitoring, researching,	Capacity	M

⁶ These communities are located in Clallam, Grays Harbor, Island, Jefferson, King, Kitsap, Mason, Pacific, Pierce, San Juan, Skagit, Snohomish, Thurston, Wahkiakum and Whatcom counties.

⁷ These communities are located in Island, Jefferson, King, Pierce, Skagit, Snohomish and Whatcom counties.

and modeling).		
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Enhancement Area Prioritization

1. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

- High _____
- Medium X
- Low _____

Briefly explain the level of priority given for this enhancement area.

Coastal hazards are again ranked as a medium priority in this assessment. While several hazards pose a high level of risk to coastal communities, there are other priorities that are more appropriately addressed by the CZM program.

2. Will the CMP develop one or more strategies for this enhancement area?

- Yes X
- No _____

Briefly explain why a strategy will or will not be developed for this enhancement area.

While flooding and geological hazards remain high risk threats to the coastal zone, these hazards are often addressed through other, non-CZM programs. Many Washington state agencies including the Department of the Military’s Emergency Management Division, the Department of Commerce’s Growth Management Services, and the Department of Ecology’s Floods Section work to address hazards in the coastal zone.

CZM staff already work with local governments to address issues such as coastal landsliding and shoreline erosion through the development of Shoreline Master Programs. Because coastal hazards are addressed in SMP updates, this enhancement area is included in our strategy for Cumulative and Secondary Impacts of Growth, which includes our work plan to update all SMPs in the coastal zone by 2015.

Public Access

Section 309 Enhancement Objective

Attain increased opportunities for public access, taking into account current and future public access needs, to coastal areas of recreational, historical, aesthetic, ecological, or cultural value

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

1. Characterize threats and conflicts to creating and maintaining public access in the coastal zone:

Type of threat or conflict causing loss of access	Degree of threat (H,M,L)	Describe trends or provide other statistics to characterize the threat and impact on access	Type(s) of access affected
Private residential development (including conversion of public facilities to private)	Medium	Shoreline Master Programs require local governments to plan to provide for public access, limiting this type of conversion. Threat level remains consistent.	All
Non-water dependent commercial/industrial uses of the waterfront (existing or conversion)	Medium	Shoreline Master Programs require local governments to plan to provide for public access, limiting this type of conversion. Threat level remains consistent.	All
Erosion	Medium	Erosion is a greater threat on the outer coast where some southwest Washington beaches are being lost to erosion. Threat level remains consistent.	Outer coast beaches
Sea level rise	Medium	No sites have been lost to sea level rise to date, however the potential for future sea level rise may threaten public access in Puget Sound.	Where shoreline armoring limits the ability of the shoreline to migrate inland in response to sea level rise, the public's ability to exercise public trust rights of walking along the intertidal area of beaches may be

			threatened.
Natural disasters	Low	Extreme weather events temporarily decrease the public's ability to access outer coast beaches, but effects are usually short-term. No trends have been witnessed.	Outer coast beaches
National security	Low	No documented history of this threat.	N/A
Encroachment on public land	Low	No documented history of this threat.	N/A
Shellfish Aquaculture	Low	Recently, some concerns have been raised that aquaculture activities in the intertidal zone on state-owned aquatic lands prevent or limit public access.	Publicly-owned Puget Sound tidelands.

2. Are there new issues emerging in your state that are starting to affect public access or seem to have the potential to do so in the future?

Budget Issues

The current budget crisis that the state is facing poses a serious risk to public access. In 2009, the Governor requested a 10% decrease in the budget of Washington State Parks. An initial proposal suggested closing, mothballing, or extending temporary closures of 15 state parks. An innovative voluntary \$5 car tab fee was introduced, allowing State Parks to continue operation of all parks through the 2009-2011 biennium. However, continued budget shortages may affect state parks in the future. It is likely that these same budget issues are facing local governments in the coastal zone and that we may see public access limited as a result.

3. (CM) Use the table below to report the percent of the public that feels they have adequate access to the coast for recreation purposes, including the following. If data is not available to report for this contextual measure, please describe below actions the CMP is taking to develop a mechanism to collect the requested data.

Contextual measure	Survey data
Number of people that responded to a survey on recreational access	825
Number of people surveyed that responded that public access to the coast for recreation is adequate or better.	470
What type of survey was conducted (i.e. phone, mail, personal interview, etc.)?	Telephone
What was the geographic coverage of the	12 counties in the Puget Sound region (Clallam,

survey?	Island, Jefferson, King, Kitsap, Mason, Pierce, San Juan, Skagit, Snohomish, Thurston, Whatcom). This geographic coverage excludes Washington's outer coast which is also a large part of our coastal zone.
In what year was the survey conducted?	2006

Information in the above table is derived from a telephone survey conducted by the Puget Sound Action Team in 2006. As a result, it does not cover Washington's outer coast or Columbia River estuary, large parts of our coastal zone geographically. However, the majority of the population in the coastal zone is in the Puget Sound area.

As part of an update to our online Coastal Atlas, Ecology will include a survey with new public access maps and tools on this website by September of 2010. The survey will focus on the user experience on the public access part of the atlas, but will also include questions about the quality and quantity of public access in Washington's coastal zone that can be used to address this contextual measure in the future.

4. Briefly characterize the demand for coastal public access within the coastal zone, and the process for periodically assessing public demand.

Data from Washington State Parks confirm that marine shorelines continue to be a popular destination for the public. Of the over 44 million visitors to state parks in the fiscal year ending June 30, 2010, nearly 54% visited parks with marine shorelines. When including all parks in the coastal zone, many of which feature public access to regulated lakes and rivers, that figure jumps to over 70%.

As mentioned above, we will be launching an online survey for users of our coastal atlas this fall to begin to better gauge demand for public access in the coastal zone.

5. Please use the table below to provide data on public access availability. If information is not available, provide a qualitative description based on the best available information. If data is not available to report on the contextual measures, please also describe actions the CMP is taking to develop a mechanism to collect the requested data.

Types of public access	Current number(s)	Changes since last assessment(+/-)	Cite data source
(CM)Number of acres in the coastal zone that are available for public (report both the total number of acres in the coastal zone and acres available for public	Total Acres in Coastal Zone: 12,061,213 Public Lands: 4,264,925	0 in total acres of coastal zone, unknown in public lands	Total acreage based on the acreage of the 15 county region from the U.S. Census Bureau. Public Lands data was drawn from the Washington State

access)			Interagency Commission for Outdoor Recreation's 1999 Public Lands Survey. No more recent data is available.
(CM)Miles of shoreline available for public access (report both the total miles of shoreline and miles available for public access)	Total miles of marine CZ shoreline = ~3160 Total miles of CZ shoreline available for public access = ~1136	~40% increase in miles available for public access ⁸	<i>Marine Shoreline Public Access Project</i> – Department of Ecology (2009). <i>Washington Public Shore Guide to Marine Waters</i> - Department of Ecology (1986)
Number of State/County/Local parks and number of acres	~ 269 parks, unknown acres	Unknown (last assessment contained incomplete data)	<i>Marine Shoreline Public Access Project</i> – Department of Ecology (2009).
Number of public beach/shoreline access sites	~1231	+~656 sites ³	<i>Marine Shoreline Public Access Project</i> – Department of Ecology (2009).
Number of recreational boat (power or non-power) access sites	~180	+~45 sites ³	<i>Marine Shoreline Public Access Project</i> – Department of Ecology (2009). WA State Interagency Committee for Outdoor Recreation 1998 GIS layer.
Number of designated scenic vistas or overlook points	192	No change (due to lack of new data)	<i>Washington Public Shore Guide to Marine Waters</i> - Department of Ecology (1986) – category not included in 2009 update.
Number of State or locally designated perpendicular rights-of-way (i.e. street ends,	~80	+~53 sites ³	<i>Marine Shoreline Public Access Project</i> – WA Department of Ecology (2009).

⁸ Changes are largely due to differences in measurement techniques, though also to acquisition, development, and improvement of lands for public access.

easements)			
Number of fishing access points (i.e. piers, jetties)	~50	~18 sites ⁹	<i>Marine Shoreline Public Access Project – WA Department of Ecology (2009).</i>
Number and miles of coastal trails/boardwalks	81 trails/boardwalks, unknown miles	No change (due to lack of new data)	<i>Washington Public Shore Guide to Marine Waters - Department of Ecology (1986) – category not included in 2009 update.</i>
Number of dune walkovers	0	0	Washington State does not have this type of public access.
Percent of access sites that are ADA compliant access	94	0	<i>Washington Public Shore Guide to Marine Waters - Department of Ecology (1986) – The Department of Ecology is currently updating this inventory and expects to have this information by late 2010.</i>
Percent and total miles of public beaches with water quality monitoring and public closure notice programs	~8% of publicly accessible shoreline monitored (~94 Miles monitored at least one summer between 2006-2009), 100% of public beaches have public notification programs.	Unknown	BEACH program – Joint program Department of Ecology & Department of Health
Average number of beach mile days closed due to water quality concerns	1.6 average beach mile days closed/ advisory due to water quality concerns. (This calculation is for all public beaches and all	Unknown	BEACH program – Joint program Department of Ecology & Department of Health

⁹ Difference is likely due to changes in the definition of a designated access point.

	notification events from 2006-2009.)		
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Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

1. For each of the management categories below, indicate if the approach is employed by the state or territory and if significant changes have occurred since the last assessment:

Management categories	Employed by state/territory (Y or N)	Significant changes since last assessment (Y or N)
Statutory, regulatory, or legal system changes that affect public access	Y	Y
Acquisition programs or policies	Y	Y
Comprehensive access management planning (including GIS data or database)	N	N
Operation and maintenance programs	Y	N
Alternative funding sources or techniques	N	N
Beach water quality monitoring and pollution source identification and remediation	Y	N
Public access within waterfront redevelopment programs	Y	Y
Public access education and outreach	Y	Y
Other (please specify)		

2. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.

- a) Characterize significant changes since the last assessment;
- b) Specify if it was a 309 or other CZM-driven change (specify funding source) or if it was driven by non-CZM efforts; and
- c) Characterize the outcomes and effectiveness of the changes.

**Statutory, Regulatory, or Legal System Changes that Affect Public Access and Public Access Within Waterfront Redevelopment Programs
Shoreline Master Program Updates**

The SMP Guidelines require local governments to “identify public access needs and opportunities within the jurisdiction and explore actions to enhance shoreline recreation facilities” (WAC 173-26-201(3)(d)(v)). During the shoreline inventory phase, local governments identify current physical and visual public access sites. Then additional public access

opportunities are identified during the inventory or through public scoping. Existing and potential public access sites are identified in the shoreline inventory and characterization report, preferably for each shoreline reach.

As of October 20, 2010, 17 local governments in Puget Sound have Ecology-approved SMPs, all containing a public access component. This is a 309 change.

Acquisition Programs or Policies

While Washington's CZM program does not directly acquire or protect public access, we do fund a staff member who works with state, local, and tribal governments, as well as land trusts and other nonprofit organizations, to connect interested groups with federal grants for acquisition and restoration. Many of the sites acquired have a public access component.

The CELCP program requires grant recipients to provide public access to the sites acquired with CELCP funds. Washington's CELCP Plan was approved by NOAA in 2007. Since that time, Ecology staff have worked to prepare multiple CELCP applications and have received two CELCP grants which were both for Kiket Island in Skagit County. This project will be co-managed by Washington State Parks and the Swinomish Tribe, and will provide public access to approximately 84 acres of property as part of Deception Pass State Park.

This is not a 309 change, but has been supported in part with 306 and 310 funding.

Public Access Education and Outreach

Coastal Atlas

A comprehensive, statewide inventory and GIS maps are currently being developed for marine shoreline public access to be added to the Washington Coastal Atlas through a project undertaken by a NOAA Coastal Management Fellow in 2008 – 2010. This project is slated for completion by September of 2010.

This project represents a significant update to the last comprehensive public access inventory which was in 1986. Products, which will be published on the Washington Coastal Atlas, include downloadable GIS map layers indicating both the lengths of public shoreline and the point where the shoreline can be accessed. Each access point feature is associated with around 50 descriptive attributes, allowing for both quantitative and qualitative analysis related to public access using the downloadable GIS data. The coastal atlas will also feature a public access search tool allowing users to search for access sites by county, by name, by location or by specific amenities and activities. The project is scheduled to be completed in September, 2010.

This is not a 309 change, but is supported with 306 funds.

3. Indicate if your state or territory has a printed public access guide or website. How current is the publication and/or how frequently is the website updated? Please list any regional or statewide public access guides or websites.

Ecology no longer provides an updated printed public access guide. However, as mentioned above, we are updating our online coastal atlas to provide updated information on public access sites throughout the coastal zone as part of the Marine Shoreline Public Access Project. This is scheduled for completion in September 2010.

Past public access guides include:

- State published public access guide: *Washington Public Shore Guide* (1986)
- Island County public access guide: *Getting to the Water's Edge* (2006)
- City of Bainbridge Island Public Access Guide (Website)
- Vashon & Maury Island Public Access Maps (Website)
- Trust for Public Lands Public Shoreline Web Tool (Website)
- Afoot & Afloat guide books (private commercial book series targeting recreational boaters and covering all of Puget Sound, Hood Canal and the northern straits).

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could be addressed through the Coastal Management Program and partners (not limited to those items to be addressed through the Section 309 Strategy). If necessary, additional narrative can be provided below to describe major gaps or needs.

Gap or need description	Select type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H, M, L)
1. Updated SMPs containing comprehensive public access inventories and plans	Regulatory and Policy	H
2. Comprehensive Public Access Planning Guidance	Policy, Communication & Outreach	H
3. Outreach & education about the public's right to access state owned aquatic lands	Communication & outreach	M

Enhancement Area Prioritization

1. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

High _____
 Medium X _____
 Low _____

Briefly explain the level of priority given for this enhancement area.

Public Access remains a medium priority in this assessment. It is one of the goals of the Shoreline Management Act, the cornerstone of Washington's CZMP. While the CZMP does not currently acquire or protect public access sites with CZM funds, it encourages public access through development of SMPs. Also, our current Marine Shoreline Public Access project demonstrates our continued commitment to highlighting public access in Washington's Coastal Zone.

2. Will the CMP develop one or more strategies for this enhancement area?

Yes X

No

Briefly explain why a strategy will or will not be developed for this enhancement area.

As mentioned above, the Marine Shoreline Public Access project will be completed in September of 2010. This project is being conducted by a NOAA Coastal Management Fellow sponsored with state funds, and overseen by our Senior Marine Ecologist funded under the 306 portion of our CZM grant. However, public access inventories and planning are components of SMP updates. Therefore, this enhancement area is included in our strategy for Cumulative and Secondary Impacts of Growth, which includes our work plan to update all SMPs in the coastal zone by 2015.

Marine Debris

Section 309 Enhancement Objective

Reducing marine debris entering the Nation's coastal and ocean environment by managing uses and activities that contribute to the entry of such debris

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

1. In the table below, characterize the significance of marine debris and its impact on the coastal zone.

Source of marine debris	Extent of source (H,M,L)	Type of impact (aesthetic, resource damage, user conflicts, other)	Significant changes since last assessment (Y or N)
Land Based – Beach/Shore Litter	H	Aesthetic, Resource Damage	N
Land Based – Dumping	M	Aesthetic, Resource Damage	N
Land Based – Storm Drains and Runoff	H	Aesthetic, Resource Damage, Human Health, Water Quality	N
Land Based – Fishing Related (e.g. fishing line, gear)	M	Aesthetic, Resource Damage, Human Health, Water Quality	Y
Ocean Based – Fishing (Derelict Fishing Gear)	M	Aesthetic, Resource Damage, Human Health, Water Quality	Y
Ocean Based – Derelict Vessels	M	Aesthetic, Resource Damage, Navigational Hazards, Human Health, Water Quality	Y
Ocean Based – Vessel Based (cruise ship, cargo ship, general vessel)	L	Aesthetic, Resource Damage, Water Quality	N
Hurricane/Storm	M	Aesthetic, Resource Damage, Navigational Hazards	N
Other - Creosote Logs	M	Aesthetic, Resource Damage, Navigational Hazards, Human Health, Water Quality	N

2. If information is not available to fill in the above table, provide a qualitative description of information requested, based on the best available information.

There has not been a systematic assessment of the sources of marine debris in Washington State. Information gathered from the Ocean Conservancy's International Coastal Cleanup

(http://www.oceanconservancy.org/pdf/A_Rising_Tide_full_lowres.pdf) provides the following data in regards to types of materials collected in Washington state during 2008 beach cleanups:

Type of Activity	# of items	% of total
Shoreline & Recreational Activities	1570	72%
Ocean/Waterway Activities	126	6%
Smoking-related activities	334	15%
Dumping Activities	141	6%
Medical/Personal Hygiene Activities	10	<1%

The Northwest Straits Marine Conservation Initiative maintains a reporting database for lost fishing gear in Puget Sound. The Olympic Coast National Marine Sanctuary did some surveys and removals for fishing gear, but did not find a high density of gear in that region due to higher wave dynamics moving lost gear onto the shoreline. For the outer coast, Columbia River and Grays Harbor are areas thought to have high quantities of gear.

3. Provide a brief description of any significant changes in the above sources or emerging issues.

Land-based and Ocean-based fishing gear

One significant change that has occurred in the form of increased funding for derelict fishing gear removal will result in the removal of 90% of the derelict fishing gear in Puget Sound by the end of 2010. As of May 2010 2,775 nets had been removed out of an estimated 3,000 derelict nets. Another change is a new, lost crab pot gear reporting and retrieval program and grant funding for additional gear removals on the coast in 2009 and 2010. These activities should result in a much lower percentage of debris in the form of fishing gear in the future. These projects are described in the management characterization below.

Derelict Vessels

As described in the management characterization below, removal of derelict vessels has increased in recent years, reducing the amount of this type of marine debris.

Because the CZM Program does not track this data, we are unable to report on changing trends in other types of marine debris with any certainty. Using the Ocean Conservancy's data, it appears that the types of debris collected have remained fairly stable.

3. Do you use beach clean-up data? If so, how do you use this information?

The CZM Program does not regularly use beach clean-up data. However, in the years that we are able to provide CZM funds to support beach clean-ups, we then use the data collected during that clean-up as part of our reporting for the CZMAPMS.

Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

1. For each of the management categories below, indicate if the approach is employed by the state or territory and if significant changes have occurred since the last assessment:

Management categories	Employed by state/ territory (Y or N)	Employed by local governments (Y, N, Uncertain)	Significant changes since last assessment (Y or N)
Recycling requirements	Y	Y	Y
Littering reduction programs	Y	Y	N
Wasteful packaging reduction programs	Y	Uncertain	N
Fishing gear management programs	Y	Y	Y
Marine debris concerns in harbor, port, marine, & waste management plans	Y	Uncertain	N
Post-storm related debris programs or policies	N	N	N
Derelict vessel removal programs or policies	Y	Y	N
Research and monitoring	N	Uncertain	N
Marine debris education & outreach	Y	N	Y
Other (West Coast Governors' Agreement and other Regional Ocean Governance Efforts)	Y	N	Y

2. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.

Recycling Requirements

A law passed in 2006 required electronics manufacturers to pay for the development and ongoing operations of a program designed to recycle electronic devices such as televisions and computers. This program launched in January of 2009 and collected over 38 million pounds in its first year of operation.

This was not a CZM funded effort.

Fishing Gear Management Programs

Northwest Straits Marine Conservation Initiative

Derelict Fishing Gear Removal Program (<http://www.derelictgear.org/>)

The Northwest Straits Marine Conservation Initiative implements the Derelict Fishing Gear Removal Program as reported in the previous 309 Assessment and Strategy.

The Northwest Straits Foundation was awarded \$4.6 million in economic stimulus funding through a grant from NOAA. These American Recovery and Reinvestment Act (ARRA) funds provide resources to find and remove approximately 3,000 high priority derelict nets that remain in Puget Sound over the 18 month period ending December, 2010, and will fulfill the Derelict Fishing Gear Removal Program goal to clear 90% of existing derelict fishing nets from high priority areas of Puget Sound by 2010. The project is expected to employ about 30 people and restore hundreds of acres of marine habitat.

This was not a CZM funded effort.

Through the end of 2009, the following derelict gear had been removed from Puget Sound as part of this program:

- 1,287 nets removed (representing 311 acres of net covering 280 acres of habitat and weighing 217,747 pounds)
- 1,921 derelict pots removed weighing 48,421 lbs

Washington Department of Fish and Wildlife

In 2008, legislation passed that initiated a new state program allowing lost crab pots to be recovered after the crab season with oversight by Washington Department of Fish and Wildlife (WDFW). In addition, lost gear must be reported to WDFW. The first year of this program resulted in recovery of 331 state commercial crab pots from the outer coast. An additional 30 tribal pots were inadvertently recovered; these were returned to the owners. WDFW also has current grant funding for removing crab pots on the outer coast, which so far, has recovered 138 state-owned and 37 tribal pots. Both crab pot efforts involve recording the marine life retrieved with the gear.

This was not a CZM funded effort.

Marine Debris Education & Outreach

Washington Clean Coast Alliance

The Washington Clean Coast Alliance is a group of comprised of government agencies, nongovernmental organizations, and community groups formed in 2007. The Alliance works to support the CoastSavers program, which is an effort to coordinate and promote the various Pacific Coast beach cleanup efforts. CoastSavers' signature event is the annual Washington Coast Cleanup, in which hundreds of volunteers gather on Pacific Coast beaches to participate in cleanup efforts every April in celebration of Earth Day. This group has helped to coordinate efforts and raise the profile of the marine debris issue and of volunteer driven cleanup efforts in Washington State.

Marine Plastics Program

In 1988, a marine plastic debris task force was created by the legislature and tasked with developing an action plan focusing on reducing marine debris, namely with cleanup, pollution prevention, increased public awareness, and coordination of government efforts in the state. The Washington Department of Natural Resources has the authority to oversee this action plan, however due to lack of a dedicated fund source DNR has been unable to maintain this program on an ongoing basis.

Other (Regional Ocean Governance Efforts)

West Coast Governors' Agreement on Ocean Health: Marine Debris Action Coordination Team

As part of Washington's participation in the West Coast Governor's Agreement, the state will work to achieve implementation of the Marine Debris Action Strategy developed by the Marine Debris Action Coordination Team. The goal of the strategy is to provide the framework to identify, assess, reduce, and prevent marine debris in California, Oregon, and Washington. The strategy identified objectives for addressing derelict fishing gear, land-based debris sources, and ocean based debris sources. A draft work plan was developed in May of 2009 which outlined a timeline for completion of a strategy, which is anticipated to be finalized by December 2010.

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could be addressed through the Coastal Management Program and partners (not limited to those items to be addressed through the Section 309 Strategy). If necessary, additional narrative can be provided below to describe major gaps or needs.

Gap or need description	Select type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H, M, L)
1. Comprehensive strategy for addressing land and ocean-generated debris and derelict fishing gear in the region.	Data, Policy	H
2. Guidelines for identifying and prioritizing marine debris assessment, reduction, prevention, and outreach activities.	Data, Policy & Outreach	M
3. Assess baseline amounts, inventory programs, and provide recommendations for effective marine debris programs.	Data, Policy	H

4. Implementation plan for regional work on marine debris.	Capacity, Outreach & Policy	L
5. Establish West Coast Marine Debris Alliance as regional group to execute the strategy.	Capacity & Communication	H
6. Statewide approach to removing derelict fishing gear.	Policy, Regulatory & Capacity	M
7. Re-examine existing law and needs for marine plastics program	Capacity & Policy	L
8. Local governments often lack consistent, adequate funding for routine and large-event prevention and disposal of shoreline marine debris.	Capacity	H
9. Some people exhibit behaviors in marine environments that increase marine debris.	Communication & Outreach, Regulatory, & Capacity	M

Enhancement Area Prioritization

1. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

High _____
 Medium _____
 Low X

Briefly explain the level of priority given for this enhancement area.

Marine debris was given a low priority in this assessment again because there continue to be other more pressing and emerging issues threatening Washington’s shorelines. In addition, several other state agencies and nongovernmental organizations are working quite effectively in this area. The Washington Department of Natural Resources manages derelict vessel and creosote log removal projects, the Northwest Straits Marine Conservation Initiative sponsors a well-funded derelict fishing gear removal program, Washington Department of Fish and Wildlife oversees coastal crab gear removals and maintains a reporting database on lost fishing gear, and several international and local nonprofits as well as state and federal agencies sponsor regular beach cleanups. In addition, our participation in West Coast Governors’ Agreement efforts to address marine debris will result in a coordinated strategy to address these issues in the region. These efforts complement the CZM program’s work in other areas affecting shorelines.

2. Will the CMP develop one or more strategies for this enhancement area?

Yes _____

No X

Briefly explain why a strategy will or will not be developed for this enhancement area.

As mentioned above, many state agencies and other entities are working to address the problem of marine debris. Marine Debris remains a low priority for the CZM program. Therefore, the CZM program does not plan to develop a strategy for this enhancement area, instead working to support the work of other agencies tackling this issue.

Cumulative and Secondary Impacts

Section 309 Enhancement Objective

Development and adoption of procedures to assess, consider, and control cumulative and secondary impacts of coastal growth and development, including the collective effect on various individual uses or activities on coastal resources, such as coastal wetlands and fishery resources.

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

1. Identify areas in the coastal zone where rapid growth or changes in land use require improved management of cumulative and secondary impacts (CSI) since the last assessment. Provide the following information for each area:

Geographic area	Type of growth or change in land use	Rate of population growth ¹⁰	Types of CSI
Clallam	Population Growth 2000 - 2009	8.29%	Residential, commercial, and industrial development leading to habitat and forest cover loss and related water quality degradation, hydrologic disruption, changes to coastal landforms and processes – resulting in net loss of ecological functions.
Grays Harbor		5.96%	
Island		12.22%	
Jefferson		10.27%	
King		9.92%	
Kitsap		6.74%	
Mason		14.97%	
Pacific		3.89%	
Pierce		16.09%	
San Juan		15.79%	
Skagit		15.46%	
Snohomish		16.22%	
Thurston		20.47%	
Wahkiakum		7.22%	
Whatcom	15.75%		

In previous Assessment and Strategy reports, only the Puget Sound area counties were identified as being impacted by population growth. While these areas are still experiencing the some of the largest increases in population, it is important to note that Grays Harbor, Pacific, and Wahkiakum Counties are also experiencing population growth, development, and related cumulative and secondary impacts.

¹⁰ Source: Official April 1, 2009 Washington State Population Estimates; <http://www.ofm.wa.gov/pop/april1/default.asp>.

2. Identify sensitive resources in the coastal zone (e.g., wetlands, water bodies, fish and wildlife habitats, critical habitat for threatened and endangered species) that require a greater degree of protection from the cumulative or secondary impacts of growth and development. If necessary, additional narrative can be provided below to describe threats.

Sensitive resources	CSI threats description	Level of threat (H,M,L)
Wetlands	Wetlands are subject to filling or degradation in urbanizing and agricultural areas; the problems are discussed in detail in the Wetlands section of this assessment.	H
Fish and Wildlife Habitat	Generalized fish and wildlife habitat remains subject to chronic degradation or replacement by urban and rural land uses. Riverine, lake, and marine system degradation resulting from development including flood management measures, bank hardening, vegetation removal, and runoff have degraded fish and wildlife habitat.	H
Intertidal Fish and Shellfish Habitat	Commercial and recreational shellfish beds in many areas remain at risk from contamination by urban and rural runoff, failing on-site sewage systems, boater wastes, and to a lesser degree other problems. Salmon rearing habitat and migration corridors are affected by water quality and shoreline modifications such as armoring and removal of native vegetation.	M
Puget Sound Shorelines	Puget Sound shorelines are affected by the adverse impacts of shoreline armoring (see Coastal Hazards assessment), the proliferation of private docks and other shoreline modifications, habitat loss due to clearing and landscaping in addition to shoreline modifications.	H
Outer Coast Shorelines	The shorelines of the outer coast as well as those of Willapa Bay, Grays Harbor, and the lower Columbia River Estuary also provide coastal resources. These areas are threatened by erosion often attributed to development-related impediments to natural sediment movement and water quality issues.	H
Lakes and Rivers	Lake and river shorelines experience many of the same threats as Puget Sound shorelines including increased armoring, habitat loss, and increasing number of shoreline modifications. Many of these lakes and rivers in the coastal zone provide important spawning and rearing habitat for endangered salmonids and other species.	H

Aesthetics, open space, public access	In urban and suburban areas, the loss of open space remains a problem, as is deteriorating marine shoreline aesthetics due to larger shoreline modifications such as armoring and stair towers. The provision of public access, either actual or visual, has not kept pace with population growth.	M
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Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

1. For each of the management categories below, indicate if the approach is employed by the state or territory and if significant changes have occurred since the last assessment:

Management Categories	Employed by state/territory (Y or N)	Significant changes since last assessment (Y or N)
Regulations	Y	Y
Policies	Y	Y
Guidance	Y	Y
Management Plans	Y	Y
Research, assessment, monitoring	Y	Y
Mapping	Y	Y
Education and Outreach	Y	Y
Other (please specify)		

2. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.

- a) Characterize significant changes since the last assessment;**
- b) Specify if it was a 309 or other CZM-driven change (specify funding source) or if it was driven by non-CZM efforts; and**
- c) Characterize the outcomes and effectiveness of the changes.**

As described in the last 2006 Assessment, Ecology adopted amended Shoreline Master Program (SMP) Guidelines in 2003. These Guidelines will direct the updating of every local shoreline master program in the Coastal Zone. SMP development and implementation address every management approach listed above, and all have undergone significant changes since the last assessment.

The timeline for completing this effort statewide, as established in statute, runs through 2014 (although many jurisdictions are expected to use the one-year extension authorized in the

SMA). Puget Sound area jurisdictions are required to update new SMPs by 2013, while the Grays Harbor, Pacific, and Wahkiakum Counties are required to update SMPs by 2015.

As of October 20, 2010, 17 coastal zone communities have had their SMPs approved by Ecology. An additional 100 additional jurisdictions are underway. There are 16 more coastal zone jurisdictions that have yet to begin their SMP updates.

Ecology supports local jurisdictions updating their SMPs. Regional staff provides day to day assistance on interpreting the guidelines, locating data and information, and producing required SMP components in a timely and consistent manner. Technical staff with expertise in the areas of wetlands, marine ecology, coastal geology, and hydrology review and provide input to local SMPs. Headquarters staff provide regular policy guidance and have worked to develop a handbook to assist local governments in updating their SMPs. Outreach and education staff at headquarters and in the regions have worked to develop a strategy to communicate information about SMP updates and SMP grants to local governments and citizens through focus sheets, FAQ documents, and a website redesign.

All of these changes were funded in part with CZM 309 and 306 dollars. Because the update process is still underway statewide, it is difficult to characterize the outcomes of the changes. But the 17 approved master programs in the coastal zone represent a significant step forward in protecting our shorelines.

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could be addressed through the Coastal Management Program and partners (not limited to those items to be addressed through the Section 309 Strategy). If necessary, additional narrative can be provided below to describe major gaps or needs.

Gap or need description	Select type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H, M, L)
1. Updated SMPs for all local governments in the coastal zone	Regulatory	H
2. SMP Guidance	Policy, Training, Communication & Outreach	H
3. SMP Communication Strategy, Staff Training and Local Government support	Communication & Outreach	H
4. Improving efficiencies in Ecology’s SMP	Capacity	H

Review & Approval Process		
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Enhancement Area Prioritization

1. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

- High X
- Medium _____
- Low _____

Briefly explain the level of priority given for this enhancement area.

Implementing the Shoreline Management Act Guidelines continues to be one of the highest priorities of Ecology’s SEA program. The current efforts by Washington State, lead by the Puget Sound Partnership, to protect and restore Puget Sound by 2020, recognize that Shoreline Master Programs are an important mechanism to achieve a healthy Puget Sound. Puget Sound SMP updates are expected to be complete by 2013. At that time, implementation of these updates will become an important tool to address cumulative and secondary impacts of development. In addition, the local governments in Grays Harbor, Pacific, and Wahkiakum Counties will be on track to complete SMP updates by 2015.

2. Will the CMP develop one or more strategies for this enhancement area?

- Yes X
- No _____

Briefly explain why a strategy will or will not be developed for this enhancement area.

We will be developing a strategy for this enhancement area. In the last Assessment and Strategy, this enhancement area reflected our only 309 strategy. The current assessment also contains a strategy for Ocean Resources, reflecting the fact that the majority of work on SMP updates will be conducted during the first half of the implementation round. However, SMP updates and their resulting implementation continue to be a very high priority for the CZM program, the SEA program, and the Department of Ecology.

Special Area Management Planning

Section 309 Enhancement Objective

Preparing and implementing special area management plans for important coastal areas

The Coastal Zone Management Act (CZMA) defines a Special Area Management Plan (SAMP) as “a comprehensive plan providing for natural resource protection and reasonable coastal-dependent economic growth containing a detailed and comprehensive statement of policies; standards and criteria to guide public and private uses of lands and waters; and mechanisms for timely implementation in specific geographic areas within the coastal zone. In addition, SAMPs provide for increased specificity in protecting natural resources, reasonable coastal-dependent economic growth, improved protection of life and property in hazardous areas, including those areas likely to be affected by land subsidence, sea level rise, or fluctuating water levels of the Great Lakes, and improved predictability in governmental decision making.”

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

1. Identify geographic areas in the coastal zone subject to use conflicts that can be addressed through special area management plans (SAMP). Also include areas where SAMP have already been developed, but new issues or conflicts have developed that are not addressed through the current plan. If necessary, additional narrative can be provided below.

Geographic Area	Major conflicts	Is this an emerging or a long-standing conflict?
Marine Waters	Emerging uses such as alternative energy have potential to conflict with existing uses such as fishing, shipping, and recreation.	Emerging and long-standing.

Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

1. Identify below any special management areas in the coastal zone for which a SAMP is under development or a SAMP has been completed or revised since the last Assessment:

SAMP title	Status (new, revised, or in progress)	Date approved or revised

None	N/A	N/A

Washington currently has one Special Area Management Plan approved by the Office of Ocean and Coastal Resource Management – the Grays Harbor Estuary Management Plan (GHEMP). The GHEMP was first adopted in 1986 by the Grays Harbor area local governments and by the state and federal agencies with pertinent regulatory authorities. OCRM formally certified the GHEMP in 1993.

2. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.

- a) Characterize significant changes since the last assessment (area covered, issues addressed and major partners);**
- b) Specify if it was a 309 or other CZM-driven change (specify funding source) or if it was driven by non-CZM efforts; and**
- c) Characterize the outcomes and effectiveness of the changes.**

There have been no significant changes to this management category since the last assessment.

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could be addressed through the Coastal Management Program and partners (not limited to those items to be addressed through the Section 309 Strategy). If necessary, additional narrative can be provided below to describe major gaps or needs.

Gap or need description	Select type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H, M, L)
None	N/A	N/A

Enhancement Area Prioritization

1. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

- High _____
- Medium _____
- Low X

Briefly explain the level of priority given for this enhancement area.

The SAMP enhancement area is assigned a low priority because there has been little interest lately in updating or amending the GHEMP, Washington's only approved SAMP. The local jurisdictions that participate in the GHEMP will be updating their Shoreline Master Programs by 2015 and may choose to update the GHEMP as part of that process. Since those jurisdictions have not yet begun their SMP updates it is unclear what role the GHEMP will play at that time.

Washington is currently involved in an effort to develop a framework for a marine spatial planning process. This project is still in its early phases, however, the MSP process could potentially result in a SAMP in the future. More information about this project can be found in the ocean resources section. In future Section 209 assessments, if the MSP process results in a SAMP, this enhancement area may be elevated in priority.

2. Will the CMP develop one or more strategies for this enhancement area?

Yes _____

No X

Briefly explain why a strategy will or will not be developed for this enhancement area.

No strategy is being developed for this enhancement area because it is ranked as a low priority and it is unclear whether or not the GHEMP is still a useful management tool at this point.

Ocean Resources

Section 309 Enhancement Objective

Planning for the use of ocean resources

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

1. In the table below characterize ocean resources and uses of state concern, and specify existing and future threats or use conflicts.

Resource or use	Threat or use conflict	Degree of threat (H,M,L)	Anticipated threat or use conflict
Water Quality	Pollution, harmful algal blooms, low oxygen “dead zones”, increasing ocean acidity, and stormwater runoff create water quality issues that threaten human and ecosystem health.	H	Low oxygen “dead zone” events off the Washington coast have been increasing in frequency and duration. Scientists have observed increases in ocean acidity, which may negatively impact marine species and ecosystem stability, particularly shellfish. Harmful algal blooms continue to impact wildlife and harvest of shellfish and threaten human health.
Coastal Ecosystems	Marine habitats and life can be harmed by a variety of ongoing human uses and developments, including: shipping (oil spills, ballast water/invasive species), fishing (fishing gear), potential future oil and gas exploration (spills, habitat disturbance), aquaculture (disease, escapement), offshore development (habitat disturbance from energy development, cables), and underwater noise (noise can	L	Ongoing existing threats and conflicts. Potential for future developments in the ocean may increase threat potential.

	alter behavior, damage hearing, disorient or reduce ability to find prey for marine life, particularly marine mammals)..		
Offshore commercial developments – (e.g. Renewable Energy Cables, Oil exploration in federal waters)	N/A (no projects currently in place, although some projects have been proposed for wave or tidal energy on the coast)	M	Other uses such as fisheries or shipping may conflict with renewable energy siting. Potential for new proposals for energy, telecommunications, or oil exploration & development may present potential conflicts as well.
Fisheries	Species such as salmon and rockfish have experienced sharp declines in population.	M	Ongoing existing threats and conflicts. Potential renewable energy projects may conflict with fishing activities.
Aquaculture	Diseases, algal blooms, and ocean acidification impact sustainability of current shellfish aquaculture operations. Potential proposals for new, offshore aquaculture projects may create use conflicts.	M	A variety of on-going and increasing threats. Potential for new federal law for offshore aquaculture and related developments.
Beneficial use of dredged material	Coastal erosion threatens public infrastructure, property, and safety; beneficial use of dredged material can offset these issues.	H	Ongoing existing threats and conflicts. Potential beneficial use sites can help resolve some problems, but pose challenges to siting and methods that will reduce impacts to ocean users and marine life as well as meeting other constraints.
Coastal Communities	A variety of impacts threaten the sustainability of coastal communities.	H	Sea-level rise, increasing storm frequently/intensity, threats to coastal fisheries, and increasing wave heights will threaten the resiliency of natural and human communities on the coast.
Shipping and navigation	Use conflicts between shipping lanes, fisheries, renewable energy development, and	M	Ongoing existing threats and conflicts, increased vessel traffic in the region.

	recreational uses may arise.		
Recreational harvest and other non-consumptive human uses	Habitat disturbance and use conflicts can arise that prevent recreational uses of the coast and ocean resources.	L	Ongoing existing threats.

2. Describe any changes in the resources or relative threat to the resources since the last assessment.

Renewable Energy

Renewable energy proposals increased since the last assessment, but have decreased recently largely due to the state of the economy. Changes in renewable energy trends are outlined in the assessment section for “Energy and Government Facility Siting.”

Water Quality

Scientists have observed increasing occurrences and extent of hypoxia and acidification in coastal waters. These changes are believed to be part of large-scale changes to oceanographic processes related to climate change. Climate processes are driven by interactions between the atmosphere and oceans. Under climate change, increased water temperatures, increased snow melt and other factors such as wind and waves, can change the patterns of large scale currents, upwelling, and other ocean processes. Hypoxia¹¹, or dead-zones, on the outer coast of Washington is driven by changes to seasonal upwelling patterns, rather than human influences increased nutrients in the water. Hypoxia can cause the death of immobile or slower moving species and drive mobile species to other locations. Ocean acidification is a result of increased uptake of carbon dioxide by the world’s oceans, which results in more acidic pH of the ocean.

During this period, several hypoxia events occurred on the outer coast during the summers, which were first observed by fishermen and then confirmed by scientists. In addition, scientists found large masses of acidified water off the coast of Washington indicating a more rapid advance of acidified waters to coastal regions than previously thought. Furthermore, failures in oyster cultivation for the past few years are thought to be potentially linked to increased ocean acidity. Ocean acidification has the potential to cause devastating impacts particularly to organisms with shells, including crabs, shellfish, plankton, and juvenile or larval stages of species. However, these impacts can also ripple through entire ocean ecosystems.

Harmful Algal Blooms occur naturally in the ocean and can impact wildlife and human health. A recent, large-scale Harmful Algal Bloom resulted in the death of large numbers of marine birds along Washington’s coast. Harmful Algal Blooms also routinely close shellfish harvest for human consumption on the outer coast. Some believe the increased frequency and extent of Harmful Algal Blooms may be related to changes to oceanographic processes due to climate change.

¹¹ Hypoxia is characterized by low or no oxygen in the water.

Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

1. For each of the management categories below, indicate if the approach is employed by the state or territory and if significant changes have occurred since the last assessment:

Management categories	Employed by state/territory (Y or N)	Significant changes since last assessment (Y or N)
Comprehensive ocean management plan or system of Marine Protected Areas	Y	Y
Regional comprehensive ocean management program	Y	Y
Regional sediment or dredge material management plan	Y	Y
Intra-governmental coordination mechanisms for ocean management	Y	Y
Single-purpose statutes related to ocean resources	Y	N
Comprehensive ocean management statute	Y	Y
Ocean resource mapping or information system	Y	Y
Ocean habitat research, assessment, or monitoring programs	Y	Y
Public education and outreach efforts	Y	Y
Other (please specify)		

2. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.

- a) Characterize significant changes since the last assessment;**
- b) Specify if it was a 309 or other CZM-driven change (specify funding source) or if it was driven by non-CZM efforts; and**
- c) Characterize the outcomes and effectiveness of the changes.**

There has been a great deal of activity surrounding the policies and practices governing both the entire Pacific coast as well as Washington's ocean resources. Several interconnected local, state, regional, and international efforts for dealing with ocean resources have been launched or enhanced since the last assessment. Because each of these activities has constituted significant changes to a number of the above management categories, the efforts are described briefly below rather than addressed under each category. A few specific management activities are also highlighted and described. None of these efforts were funded with 309 dollars, but many of them were supported by our Ocean Policy Associate, who is funded with 306 dollars.

Ocean Policy Work Group

In response to the recommendations of several national commissions on ocean resources, the Washington Governor's Office established the Washington State Ocean Policy Work Group in 2005. This group was tasked with summarizing the status of Washington's ocean resources and their value to the state's economy, cultural identity, and quality of life as well as providing recommendations for improving protection and management of the state's ocean resources.

The final report of the Ocean Policy Work Group, "Washington's Ocean Action Plan: Enhancing Management of Washington State's Ocean and Outer Coasts." was released in December of 2006. Management issue areas covered by the recommendations included: fisheries; aquaculture; ecosystem-based management; renewable ocean energy; climate change; coastal hazards; coastal erosion/sediment management; marine debris; oil spills; ocean education and literacy; scientific research, monitoring and observing; sustainable communities; and governance.

State Ocean Caucus

The State Ocean Caucus, a group of ten state agencies with an interest in managing Washington's coastal resources, was convened by the Governor's office in 2007 in order to address the recommendations of the Ocean Policy Work Group's Final Report. This group was tasked with developing and executing a detailed work plan to act on the Ocean Policy Work Group's recommendations, establishing a mechanism for coordination among government agencies and stakeholders, and identifying needed budget resources. This group meets regularly to coordinate on these issues and holds a few public outreach meetings on the coast each year. Additionally, the group utilizes a website and email listserv to provide updates on activities. CZM program staff members coordinate this team and represent Ecology on this team.¹² Several recommendations from Washington's Ocean Action Plan have been completed or are in progress.

Ocean Policy Advisory Group

The Ocean Policy Advisory Group is a network of people interested in ocean resources and the activities of the State Ocean Caucus. The purpose of this advisory group is to provide input on broader policy decisions, review the State Ocean Caucus' work plan and implementation, provide input on an ongoing basis and at regular meetings, and share updates on local issues related to ocean resources. CZM staff maintains this advisory group.

West Coast Governors' Agreement on Ocean Health

In September of 2006, the governors of California, Oregon and Washington announced the West Coast Governors' Agreement on Ocean Health (WCGA). The WCGA furthered the goals of the U.S. Commission on Ocean Policy and the Pew Oceans Commission by initiating a regional collaboration to manage ocean resources along the West Coast. The goals are clean water,

¹² The state legislature specifically provided funding to Ecology to implement the recommendations of Washington's Ocean Action Plan. In order to fulfill the spirit of the governance recommendation for improving interagency coordination, the Governor's office with assistance of Ecology launched the State Ocean Caucus.

healthy coastal habitats, ecosystem-based management, reduced impacts of offshore development, increased public awareness of ocean issues, expanded scientific information and research, and sustainable economic development.

In 2008 the WCGA released its Action Plan, a plan for achieving the priorities of the Agreement with 26 key actions. Ten Action Coordination Teams were established to coordinate implementation of the Action Plan covering the following issues: climate change, renewable ocean energy, seafloor mapping, marine debris, polluted runoff, sustainable communities, sediment management, integrated ecosystem assessments, and ocean literacy/education. Eight of these teams released detailed draft work plans for public comment in Summer 2009. The WCGA has been making progress on a variety of actions and recently received dedicated federal funding to implement actions in the work plans.

Washington has been an active participant in the WCGA, with staff from the CZM program, Ecology, other state agencies and entities sitting on or acting as point-of-contact for multiple action teams. CZM program staff also supports the Governor's office who serves as Washington's representative to the WCGA.

Olympic Coast Intergovernmental Policy Council

In 2007, the State of Washington and the four treaty tribes along Washington's outer coast formed the Intergovernmental Policy Council with support from NOAA's National Marine Sanctuary Program to provide input on the co-management of the resources of the Olympic Coast National Marine Sanctuary. Through this Council, the Hoh, Makah, and Quileute tribes and the Quinault Indian Nation and state can coordinate on ocean policy issues of concern in the Sanctuary. CZM program staff provides support to the Governor's office for representing the state on the council.

British Columbia-Washington Coastal and Ocean Task Force/Pacific Coast Collaborative

Washington continues to collaborate with British Columbia on key priorities related to management of shared marine waters. Two primary forums were established during this period. The British Columbia-Washington Coastal and Ocean Task Force was established to replace the Puget Sound-Georgia Basin Task Force. This effort now covers a range of activities in both inner marine waters and open ocean coasts. The Pacific Coast Collaborative is a broader sustainability agreement among Alaska, British Columbia, Washington, Oregon, and California and launched by British Columbia's premier. One element of this agreement deals with ocean issues and builds largely off of a subset of priorities established by the West Coast Governors' Agreement on Ocean Health.

Coastal Marine Resource Committees

Marine Resources Committees (MRCs), diverse locally-based, citizen, volunteer groups were recently established on Washington's outer coast (in Clallam, Jefferson, Grays Harbor and Pacific Counties) to coordinate and support local official and citizen involvement in coastal and ocean management issues and stewardship projects and initiatives. This program is administered by Washington Department of Fish and Wildlife, which provides grants for

coordination of MRCs by the counties and for projects identified by MRCs and monitors progress of activities based on program benchmarks. MRCs have also recently elected representatives to attend State Ocean Caucus meetings to improve coordination and communication.

Interstate Consistency

Ecology's recent Section 312 evaluation is expected to include a program suggestion encouraging the Washington CZMP to work with the Oregon CZMP to develop an interstate consistency agreement. This would allow Washington to review certain activities occurring in Oregon that affect our coastal zone, and vice versa. We intend to explore this possibility with OCRM and the Oregon CZMP in the future.

Highlights of specific activities under management categories

Comprehensive Ocean Management Plan and Ocean Management Statute

Ongoing implementation by the state of Washington's Ocean Action Plan (2006) and the Ocean Resources Management Act (ORMA) set forth an approach for dealing with ocean management gaps as well as laying out the state's current policies and regulatory guidelines for managing ocean uses. However, ORMA does not provide a more specific, spatially-explicit plan for ocean uses nor is it particularly effective for coordinating decisions across jurisdictional authorities or for addressing decisions in an ecosystem-context.

In March 2010, the state legislature passed a bill (SB 6350) for conducting comprehensive marine waters management, or marine spatial planning. This planning must integrate and build off of existing authorities as well as develop state guidance on and a framework for the siting and operation of renewable ocean energy projects, but the process will only be launched if non-state funds become available. In the meantime, the State Ocean Caucus, working with others such as the Puget Sound Partnership, will develop recommendations on the path forward for marine spatial planning in Washington. CZM staff will lead this assessment effort with a report to the legislature due by December 15, 2010.

Marine Protected Area (MPA) Work Group

In 2008 and 2009, Washington Department of Fish and Wildlife led a legislatively-mandated work group to inventory and provide recommendations on Marine Protected Areas in the state. The final inventory and recommendations report were submitted to the state legislature in December 2009. In summary, Washington is home to 127 MPAs managed by eleven federal, state, and local agencies. Twenty-six percent of the state's marine waters and 27% of the state's shorelines are included in the boundaries of MPAs, which have various degrees of protection. Most of the recommendations were for improving coordination, monitoring, funding, integration, and effectiveness of existing MPAs in the state. The group additionally recommended conducting a gap analysis related to effectiveness and the level of protection provided by current MPAs. CZM program staff participated on the MPA work group.

Regional Sediment Management

Erosion and sediment management issues occur in many places of Washington's coastal zone. In particular, Washington's southwest coast and the lower Columbia River pose complex challenges to improving management and increasing the beneficial uses of sediment – especially for restoring habitat and natural long-shore sediment processes and sustaining beaches in the area. Ecology has been participating on the Lower Columbia Solutions Group, a bi-state partnership convened in 2002 by the governors of Oregon and Washington as a collaborative forum for sediment management solutions. Over the past few years, Ecology has co-sponsored a series of science-policy workshops to develop consensus on status of the science and recommendations on next steps to advance management solutions for the region.

Ecology is participating in development of two Regional Sediment Management plans, one plan being developed for the Mouth of the Columbia River/outer coast and a broader plan for the all of the lower Columbia River, of which the outer coast plan will be a sub-element. Additionally, Ecology secured state funding to match federal funding for a large sand placement using clean dredge material to replenish Washington beaches at or near Benson Beach in summer 2010.

Ocean Resource Mapping or Information System

Ecology continues to maintain Washington's Coastal Atlas, a free, web-based, interactive data application that provides access to a wide range of coastal data and information. Users can display spatial data and view/download shoreline aerial photos. Ecology continues to incorporate relevant, available data sets from a variety of sources to improve the content of the atlas and, for example, is currently exploring exchanging data with the NOAA/MMS Multiple-Use Marine Cadastre that could expand data available in the atlas for the ocean. The atlas has less data available for the ocean than estuaries, nearshore, shorelines and watersheds. The atlas is currently being updated with a public access database and undergoing a major redesign to expand the utility of the atlas.

Ocean habitat research, assessment, or monitoring programs

Seafloor Mapping

Seafloor maps have great potential to inform scientists, managers, and citizens when making decisions on developing, protecting, or restoring the marine environment. They can provide a comprehensive picture of the ocean bottom with information on seafloor habitats, geological features and hazards, detailed bathymetry, archaeological features, and even location of marine debris. In 2008, a group of state and federal natural resource and science agencies, along with private industry partners convened the Washington State Seafloor Mapping Workshop in Seattle. This workshop, attended by scientists, managers, and policy makers, highlighted seafloor mapping technology and products, discussed status of mapping efforts, determined data gaps and priorities and develop partnerships and next steps to advance comprehensive mapping of Washington State's marine waters.

Following the recommendations from this workshop were two main outcomes: 1) the Washington Seafloor Mapping Committee formed and drafted a strategic plan for completing mapping the state and 2) upon request from Governor Gregoire, the Navy lifted a restriction on

sharing of NOAA's high resolution seafloor data that had been in place since 1985. CZM staff participated in these efforts, including assisting with implementing the follow-up from the workshop described above. Seafloor mapping continues to advance in the state through the work of key partners including the Olympic Coast National Marine Sanctuary, Tomolo Institute, University of Washington, NOAA's Office of Coast Survey, US Army Corps of Engineers, and US Geological Survey. However, the Washington State Seafloor Mapping Committee still needs to finalize and executive the state strategy to better coordinate the vision for comprehensive mapping in the state.

Other habitat research, assessment and monitoring is conducted in the state. Washington Department of Natural Resources monitors and assesses aquatic vegetation such as eelgrass and kelp beds. The University of Washington, Washington Department of Fish and Wildlife, tribes, and federal agencies like the Olympic Coast National Marine Sanctuary, NOAA's coral program, and others conduct research on deep-water coral and sponge habitats including identifying locations and assessing their status and function.

Ocean Observation and Monitoring

A variety of groups conduct monitoring of various aspects of the ocean, but these are primarily driven by the jurisdiction for an agency or particular area of interest for academic researchers. The Olympic Coast National Marine Sanctuary conducts monitoring for such things as water quality, marine mammals, seabirds, and other key resources in the sanctuary. NOAA has scientists that conduct fisheries assessments, monitor ocean acidification, and conduct other research related to ocean resources and large-scale oceanographic processes. Washington State agencies conduct monitoring for water quality primarily in coastal estuaries, but not the open ocean. State agencies also perform more monitoring related to fish and wildlife population assessments as well as for Harmful Algal Blooms.

During this period, the Northwest Association of Networked Ocean Observing Systems (NANOOS) continued to expand its work. This included recent purchase of a buoy which will be installed off of La Push as well as an autonomous glider to monitor water quality parameters in the ocean. In addition, the University of Washington secured a major National Science Foundation grant for its Neptune project, which will install a cabled observatory off of Washington and Oregon's coasts. The nodes along this observatory will collect and share a variety of physical, chemical, geological, and biological data through many different instruments including underwater videos. Recently, another buoy to measure wave properties was installed near the Mouth of the Columbia River to better gauge the bar conditions for mariners as well as to validate the computer models used for sediment and wave modeling

Education

With support from the state, through connections to the State Ocean Caucus and Washington's Ocean Action Plan, the Pacific Education Institute obtained a NOAA-funded education grant for three years for developing coastal and ocean stewardship projects for students in outer coast school districts. Washington Sea Grant established the Hershman Fellowship three-year pilot project and partnered with the State Ocean Caucus to provide an opportunity for current or

recent graduate students to work on ocean and coastal policy projects with state agencies. Other public outreach efforts are described throughout, above.

None of the above-described efforts were 309 funded changes. However, the Ocean Policy Associate and Coastal/Shorelands section manager who represent the bulk of Ecology’s efforts were funded with 306 grant funds and some state general funds. In addition, Ecology used some Section 306 funds to help support three sediment management workshops and one seafloor mapping workshop on the outer coast.

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could be addressed through the Coastal Management Program and partners (not limited to those items to be addressed through the Section 309 Strategy). If necessary, additional narrative can be provided below to describe major gaps or needs.

Gap or need description	Select type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H, M, L)
1. Clear guidance and improved internal and external processes for implementing ocean policies as part of the state’s CZMP.	Policy	H
2. Updated local SMPs that address ORMA as applied through the Ocean Use Guidelines of the SMA	Regulatory, Policy	H
3. Complete inventory and evaluation of spatial data and gaps for MSP.	Data	H
4. Lack of comprehensive and adequate data on ocean resources and uses, including -- human uses such as documenting cultural, commercial, and recreational patterns of use of marine waters and resources (both consumptive and non-consumptive), and other priority data sets including: bathymetry-topography, fisheries, habitats, conservation/regulated areas, water quality, oceanographic processes, marine fish, geomorphic characterization,	Data	H

endangered and threatened species, and ownership.		
5. Need to identify and establish key ocean health indicators to establish efficient and effective monitoring and measure progress toward ecosystem health.	Data and Policy	H
6. Evaluate exchange networks, existing state agency tools, regional data portals, and other tools for sharing, managing and analyzing spatial data as part of MSP. Pursue development or expansion of any efforts, as appropriate.	Data and Policy	H
7. State lacks comprehensive, proactive, effective plan to guide and align decision-making for a variety of ocean uses, such as renewable energy and sediment management. Mechanism now exists and many policies are already in place but need to outline the detailed framework. Adequate funding does not exist to launch process at this time.	Policy and Capacity	M/H
8. Inadequate monitoring on ocean conditions and key parameters, such as water quality, physical parameters, and biological resources.	Data	M/H
9. Local governments and others often lack the capacity or training to identify, interpret and utilize scientific information, understand risks, and translate this information to form effective policy and regulatory decisions.	Training and Capacity	M
10. Many coastal citizens still are unaware of various newer efforts related to managing ocean resources.	Communication & Outreach	M
11. Citizens are generally not ocean	Communication & Outreach	L/M

literate. They often do not understand how the ocean functions; nor can they communicate about the ocean in a meaningful way; and are often unable to make informed and responsible decisions regarding the ocean and its resources.		
12. Limited ability to implement all identified recommendations and actions for improving ocean management.	Capacity	L/M

Enhancement Area Prioritization

1. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

- High X
- Medium _____
- Low _____

Briefly explain the level of priority given for this enhancement area.

The level of priority given to the ocean resources enhancement area has been raised from medium to high in this assessment. Like the Puget Sound, Washington’s outer coast has been the focus of renewed focus in recent years. The emerging and continuing efforts such as the West Coast Governor’s Agreement, State Ocean Caucus, and the recently passed Marine Spatial Planning bill (described later in detail in the marine spatial planning strategy) all point to the need to elevate the priority of ocean resources planning and policy.

2. Will the CMP develop one or more strategies for this enhancement area?

- Yes X
- No _____

Briefly explain why a strategy will or will not be developed for this enhancement area.

We will develop a strategy to address the Ocean Resources enhancement area. This strategy will include working toward developing a marine spatial plan and also incorporating ocean resources planning into local SMPs. Because of the recent marine spatial planning bill, Ecology will be devoting resources to implementing the legislative report to be completed in December of 2010. This work will result in a variety of program changes.

In addition, as part of their efforts to update SMPs, local governments along the outer coast will adopt policies relating to ocean resources within their jurisdictions. All coastal jurisdictions are

scheduled to adopt updated SMPs by 2015. Ecology will also need to develop guidance for local governments relating to its ocean guidelines. With more and more effort being placed on ocean policy and planning by CZM funded staff, it is likely that several additional program changes may result from their work that could be supported by 309 funding.

Energy & Government Facility Siting

Section 309 Enhancement Objectives

Adoption of procedures and enforceable policies to help facilitate the siting of energy facilities and Government facilities and energy-related activities and Government activities which may be of greater than local significance

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

1. In the table below, characterize the types of energy facilities in your coastal zone (e.g., oil and gas, Liquefied Natural Gas (LNG), wind, wave, Ocean Thermal Energy Conversion (OTEC), etc...) based on best available data. If available, identify the approximate number of facilities by type.

Type of Energy Facility	Exists in CZ (# or Y/N)	Proposed in CZ (# or Y/N)	Interest in CZ (# or Y/N)	Significant changes since last assessment (Y or N)
Oil and gas facilities	Y	N	N	N
Pipelines	Y	Y	Y	N
Electric transmission cables	Y	Y	Y	N
LNG	N	N	Y	Y
Wind	Y	Y	Y	Y
Wave	N	Y (1)	Y (5)	Y
Tidal	N	Y	Y	Y
Current (ocean, lake, river)	N	N	N	N
OTEC	N	N	N	N
Solar	N	N	N	N
Other (Biomass)	Y	Y	Y	N

2. Please describe any significant changes in the types or number of energy facilities sited, or proposed to be sited, in the coastal zone since the previous assessment.

Since the previous assessment, Washington has seen a large increase in the number of proposed renewable ocean energy facilities in the coastal zone - at one point numbering 11 proposed projects. These include wind, wave, tidal, in-river, and combined projects. CZM staff spent increasing time during the reporting period sorting out licensing processes, reviewing

permits and licenses for these projects, and developing and responding to various federal policies. However, due to the recent economic downturn, many of these projects have either been abandoned or postponed, and many of the permitted projects have surrendered their preliminary permits or licenses. Despite this, there are several active tidal energy pilot projects that are anticipated to proceed through environmental permitting and licensing processes in the next few years.

3. Does the state have estimates of existing in-state capacity and demand for natural gas and electric generation? Does the state have projections of future capacity? Please discuss.

Yes, the Northwest Power and Conservation Council routinely updates a regional power plan for the Pacific Northwest that also captures data on energy demand projections and electric generation capacity in the region as well as providing a planning framework for the region's power needs for major utilities. The latest power plan was released in February 2010 (<http://www.nwcouncil.org/energy/powerplan/6/default.htm>). According to this plan, electricity load (without new conservation) in the region is expected to grow about 335 average megawatts, or 1.4 percent, per year between 2009 and 2030. The plan notes, however, that 85 percent of the new demand for electricity over the next 20 years in the Northwest can be met by using energy more efficiently. The plan also recommends that in addition to energy efficiency, future demand for power be met with renewable energy — mainly wind — plus new natural gas-fired turbines in areas where demand grows rapidly and utilities need new generating plants in addition to renewable power and efficiency improvements. The Washington Department of Commerce's Energy Policy Division also maintains some state-specific data on electric consumption, generation and demand (<http://www.commerce.wa.gov/site/526/default.aspx>).

4. Does the state have any specific programs for alternative energy development? If yes, please describe including any numerical objectives for the development of alternative energy sources. Please also specify any offshore or coastal components of these programs.

Washington State generates approximately $\frac{3}{4}$ of its electricity through hydropower. However, the state still relies on more traditional sources of energy such as natural gas and coal and energy demand is projected to continue growing steadily in the state. In 2006, the voters of Washington passed Initiative 937, the Clean Energy Initiative. I-937 enacts a Renewable Energy Standard (RES) that requires Washington's 17 largest utilities to get 15% of their electricity from new, homegrown, renewable energy sources by 2020. Utilities are also required to pursue all low-cost energy efficiency and conservation opportunities. In addition, many utilities in the state offer voluntary green power purchasing programs for their customers. Numerous private and local PUD proposals for renewable energy continue to emerge in the coastal zone.

The Clean Energy Leadership Council was created by the legislature in 2009 and convened by the Governor's office and a state-wide public-private clean energy alliance. This group, who met for the first time in August of 2009, will focus on aligning Washington State's energy

policies, technologies and funding to ensure Washington continues to be a leader in clean energy development.

5. If there have been any significant changes in the types or number of government facilities sited in the coastal zone since the previous assessment, please describe.

There have been no significant changes in the number of government facilities in the coastal zone.

Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

1. Does the state have enforceable policies specifically related to energy facilities? If yes, please provide a brief summary, including a summary of any energy policies that are applicable to only a certain type of energy facility.

Yes. The Washington State Energy Facility Site Evaluation Council (EFSEC or the Council) provides a “one-stop” siting process for major energy facilities in the State of Washington. The council coordinates all of the evaluation and licensing steps for siting major energy facilities in Washington. If EFSEC approves a project, it then specifies the conditions of construction and operation; issues permits in lieu of any other individual state or local agency authority; and manages an environmental and safety oversight program of facility and site operations. EFSEC’s authorizing statute and regulations are an approved enforceable policy of Washington’s CZMP.

EFSEC is a state agency comprised of a Governor-appointed Chair, permanent representatives of five state agencies, and occasional representatives from other state agencies. The Council’s responsibilities include siting large natural gas and oil pipelines, thermal electric power plants over 350 megawatts and their dedicated transmission lines, new oil refineries or major expansions of existing facilities, and underground natural gas storage fields. In addition, energy facilities of any size which exclusively use alternative energy resources (wind, solar, geothermal, landfill gas, wave or tidal action, or biomass energy) can opt in to the EFSEC review and certification process. EFSEC’s authority does not extend to hydro-based power plants, thermal electric plants less than 350 megawatts, or general transmission lines. However, EFSEC has not received any of the proposed wave or tidal energy projects in state waters. These have, instead, turned to the Federal Energy Regulatory Commission (FERC) process for preliminary permits and licenses.

2. Please indicate if the following management categories are employed by the State or Territory and if there have been significant changes since the last assessment:

Management categories	Employed by state (Y or N)	Significant changes since last assessment (Y or N)
Statutes or regulations	Y	N

Policies	Y	Y
Program guidance	Y	N
Comprehensive siting plan (including SAMPs)	Y	Y
Mapping or GIS	Y	N
Research, assessment or monitoring	Y	Y
Education and outreach	Y	Y
Regional Ocean Governance Efforts	Y	Y

3. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.

- a) Characterize significant changes since the last assessment;**
- b) Specify if it was a 309 or other CZM-driven change (specify funding source) or if it was driven by non-CZM efforts; and**
- c) Characterize the outcomes and effectiveness of the changes.**

Policies

Federal policy, regulatory processes and FERC Memorandum of Understanding

Given the increased activity during this period on hydrokinetic projects in the state and related federal policy development, Ecology/CZM staff analyzed and responded to federal policies being developed by the Federal Energy Regulatory Commission (FERC) and Minerals Management Service (MMS); engaged in regulatory processes on technical, policy, permitting, and legal aspects of projects; and coordinated the establishment of a Memorandum of Understanding (MOU) between Washington (represented with signatures by multiple agencies and the governor) and FERC in June 2009. This MOU set forth procedures for improving coordination and communication between the state and FERC on permitting and licensing of hydrokinetic projects in the state. This included formally designating a point-of-contact for Washington at the Governor’s Office of Regulatory Assistance – this office had already been coordinating communication among state, federal and other regulatory entities with hydrokinetic project applicants for the FERC regulatory process and the necessary, related authorizations. As a result, FERC also sent their staff to provide training for state permitting and regulatory staff and state staff now have a clearer process for communicating and coordinating with FERC on projects early. CZM staff processed permits and authorizations for the country’s first FERC-licensed wave energy project (Finavera Renewables) at Makah Bay, which was subsequently surrendered. CZM staff also assisted a Department of Energy-funded project that resulted in a handbook on the regulatory process in Washington.

Comprehensive Siting Plan, Education and Outreach

State Ocean Caucus: Marine Spatial Planning

CZM staff also coordinates and facilitates a Washington interagency team, called the State Ocean Caucus, focused on addressing Washington’s coast and implementing Washington’s Ocean Action Plan. Over the next year, this work will involve coordinating with these colleagues

and others to determine a state framework for marine spatial planning, including potential management gaps such as renewable ocean energy and information on available data and data gaps.

Research, Assessment, or Monitoring

Northwest National Marine Renewable Energy Center

Northwest National Marine Renewable Energy Center is a partnership between University of Washington and Oregon State University with funding from Department of Energy. These two universities are conducting research related to wave and tidal energy devices and will partner with the National Renewable Energy Laboratory (NREL) on research, education, outreach, and engagement. The Center's work is structured to:

1. Close key gaps in understanding through the support of baseline studies, on-going monitoring, and setting the technical, ecological, and human dimensions standards for wave energy projects;
2. Educate and mentor the next generation of marine energy-related scientists, engineers, and educators in the U.S.
3. Facilitate device commercialization through development of standards for validation and evaluation of devices;
4. Inform regulatory and policy decisions, and
5. Inform and engage industry, science, and the public.

Pacific Northwest National Labs

Pacific Northwest National Laboratory's (PNNL) is also the only national lab with a marine sciences division – with research goals of reducing dependence on imported oil and reducing the environmental effects of human activities and create sustainable systems. Related to marine renewable energy, PNNL is directing current research towards:

- Predicting and mitigating impacts of tidal, wave, ocean thermal, and offshore wind energy systems on coastal environments
- Optimizing siting of coastal energy installations
- Optimizing technologies to meet environmental and power production goals
- Optimizing production of biofuels by marine algae.

PNNL is currently partnering with other groups such as NOAA and NNMREC to sponsor a workshop on evaluating the ecological effects of tidal energy with a host of scientific experts.

Regional Ocean Governance Efforts

West Coast Governors' Agreement on Ocean Health: Renewable Ocean Energy Action Coordination Team

As part of Washington's participation in the West Coast Governors' Agreement (WCGA), the CZM staff and other state representatives assisted with development a work plan developed by the Renewable Ocean Energy Action Coordination Team (ACT). The ACT is tasked by the WCGA to: *Explore the feasibility for offshore alternative ocean energy development and evaluate the potential impacts of these technologies.* During this period, CZM staff also assisted with

planning and implementation of two regional workshops during this period (September 2008 and October 2009). These workshops helped provide the ACT with input on: 1) the key needs for the region and work plan tasks and 2) the scope and content for a work plan element called the Planning Guidebook (formerly the coastal siting report) and to also examine this project's relationship to marine spatial planning. The ACT is now transitioning to implementation of its work plan, which includes seeking funds and partnerships to carry out various work plan tasks. CZM staff will continue to coordinate this ACT and with other state representatives to ensure progress.

None of these changes are 309 changes, however many were supported in part by Section 306 funding.

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could be addressed through the Coastal Management Program and partners (not limited to those items to be addressed through the Section 309 Strategy). If necessary, additional narrative can be provided below to describe major gaps or needs.

Gap or need description	Select type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H, M, L)
1. Lack of comprehensive guidance or a plan for guiding siting and operation of renewable ocean energy projects.	Data, Policy & Capacity	H
2. Incomplete or lacking key spatial/baseline data for renewable energy siting such as human uses, energy infrastructure and resources, seafloor habitats, etc.	Data	H
3. Unknown environmental impacts and cumulative effects of various energy devices and proposals.	Data	H
4. Many stakeholders lack adequate knowledge about the regulatory process for renewable ocean energy and how to effectively engage in the process.	Communication & Outreach	M
5. Lack standard protocol for monitoring projects and lack knowledge of the effectiveness of various mitigation measures.	Data, Policy, and Capacity	M

Enhancement Area Prioritization

1. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

High _____

Medium X

Low _____

Briefly explain the level of priority given for this enhancement area.

This enhancement area was given a medium priority, up from a ranking of low priority in the last assessment. This is largely due to the fact that the last assessment focused solely on the Energy Facility Site Evaluation Council (EFSEC), rather than the entire energy industry in the coastal zone. When considering this broader definition of energy, the enhancement area becomes a higher priority for the coastal program. In addition, the rapid development of alternative energy proposals in the coastal zone has elevated the need for attention to this issue.

2. Will the CMP develop one or more strategies for this enhancement area?

Yes X

No _____

Briefly explain why a strategy will or will not be developed for this enhancement area.

We do not plan to develop a stand-alone strategy for this enhancement area. However, because energy facility siting is largely an ocean resources issue, we will include this enhancement area in our strategy for Ocean Resources. Through tools such as marine spatial planning, regional collaborations on ocean issues, and state interagency workgroups, we will address energy facility siting in Washington's marine waters and throughout the coastal zone.

Aquaculture

Section 309 Enhancement Objective

Adoption of procedures and policies to evaluate and facilitate the siting of public and private aquaculture facilities in the coastal zone, which will enable States to formulate, administer, and implement strategic plans for marine aquaculture

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

1. Generally characterize the private and public aquaculture facilities currently operating in your state or territory.

Type of existing aquaculture facility	Describe recent trends	Describe associated impacts or use conflicts
Bag and Bottom Shellfish Culture (oysters, clams)	This industry remains important to Washington's economy, particularly in the coastal communities surrounding Willapa Bay and Gray's Harbor.	Threats to these major industries in Washington include water quality issues, harmful algal blooms, introduced pests and predators, and invasive vegetative species such as Spartina. Use conflicts arising include the application of pesticides to control burrowing shrimp which may harm other organisms, and the potential for habitat disruption and debris from operations.
Floating Shellfish Culture (mussels, oysters)	Unknown	Many of the threats above also affect floating shellfish aquaculture. Additional conflicts include land use conflicts and potential harm from shading or water quality issues. The aquaculture industry is also expanding efforts to raise geoduck seed in a floating raft environment.
Net Pen Culture (salmon, herring)	Unknown	Accumulation of organic wastes below the net pens or

		rafts; introduction of exotic species; introduction of new diseases
Intertidal Geoduck Culture	This relatively new type of aquaculture is expanding, particularly throughout south Puget Sound.	No established statewide regulatory scheme for siting and harvest (Department of Health licensing and certification is required for producers and growing areas). Inconsistent regulatory treatment through local Shoreline Master Programs creates challenges for industry. Potential for conflict between upland property owners and intertidal activities. Potential for habitat disruption and debris from operations.

Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

1. For each of the management categories below, indicate if the approach is employed by the state or territory and if significant changes have occurred since the last assessment:

Management categories	Employed by state/territory (Y or N)	Significant changes since last assessment (Y or N)
Aquaculture regulations	Y	Y
Aquaculture policies	Y	Y
Aquaculture program guidance	Y	Y
Research, assessment, monitoring	Y	Y
Mapping	Y	Y
Aquaculture education & outreach	Y	Y
Marine Spatial Planning	Y	Y

2. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.

a) Characterize significant changes since the last assessment;

- b) Specify if it was a 309 or other CZM driven change (specify funding source) or if it was driven by non-CZM efforts; and**
- c) Characterize the outcomes and effectiveness of the changes.**

Aquaculture regulations, policies, program guidance, research, and education/outreach

Geoduck Aquaculture

The 2007 Washington State Legislature passed SSHB 2220 relating to shellfish aquaculture. That bill:

- Commissioned a series of intertidal geoduck aquaculture scientific research studies to be led by Washington Sea Grant.
- Created a Shellfish Aquaculture Regulatory Committee with members representing a wide range of perspectives.
- Directed Ecology to develop Shoreline Master Program guidelines for geoduck aquaculture operation siting and operation.
- Directed the Washington Department of Fish & Wildlife to expand the information required for aquatic farm registration.

The CZM Program's role in implementing this bill has primarily centered around convening the Shellfish Aquaculture Regulatory Committee and on developing SMP guidelines for geoduck aquaculture. The committee convened in 2007 and provided a final report in January of 2009. The membership of the Committee was diverse, including representatives of local government, the shellfish aquaculture industry, the environmental community, shoreline property owners, state agencies and tribal governments. The Committee reviewed background documents, met with a wide range of experts on aquaculture and marine sciences, visited a geoduck aquaculture operation and discussed how geoduck aquaculture should be addressed by local shoreline master programs.

CZM staff are preparing to start formal rulemaking in March 2010 in response to SSHB 2220. The rule changes may address both public and private geoduck operations. This rulemaking process is may be challenging as the issue remains highly controversial. As an interim action, staff is providing informal guidance through the Shoreline Master Program Handbook for local governments and Ecology's website, through direct technical assistance to local governments currently updating their Shoreline Master Programs, and meetings with our sister natural resource state agencies.

In addition, the US Army Corps of Engineers Nationwide Permit #48 authorizes existing aquaculture operations, including intertidal geoduck aquaculture. Ecology CZM staff was involved in determining both 401 and federal consistency conditions on this permit, and are closely tracking permit applications.

Mapping

Because of the new Nationwide Permit #48 (mentioned above) that that will track existing aquaculture operations, Ecology will be mapping geoduck aquaculture activities. This mapping

will be useful for conveying the magnitude of cumulative impacts from geoduck aquaculture, evaluating possible impacts to critical areas and spatial relation to critical habitats. The permit has recently been finalized and we are now awaiting decisions from the Corps of Engineers on each application. We expect to complete mapping in late 2010.

This was not a 309 driven change but was supported by CZM 306 grant funds. Since the rulemaking is only beginning it is not possible to assess the effectiveness of the changes.

Marine Spatial Planning

As described in detail in the Ocean Resources assessment and Marine Spatial Planning strategy, Washington is in the early stages of scoping a marine spatial planning strategy. The eventual marine spatial plan will take into account aquaculture activities.

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could be addressed through the Coastal Management Program and partners (not limited to those items to be addressed through the Section 309 Strategy). If necessary, additional narrative can be provided below to describe major gaps or needs.

Gap or need description	Select type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H, M, L)
1. Geoduck Aquaculture Regulations in SMP Guidelines	Policy and Regulatory, Communication and Outreach	H
2. Continued study of the effects of intertidal geoduck aquaculture	Data	H
3. Mapping of existing aquaculture operations	Data	M

Enhancement Area Prioritization

1. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

- High _____
- Medium _____
- Low _____

Briefly explain the level of priority given for this enhancement area.

Aquaculture, and in particular geoduck aquaculture, remains a challenging policy issue, and continues to be a high priority for the State and Ecology. However, we are currently addressing this policy gap with state-funded rulemaking efforts. Therefore, as aquaculture was classified as a medium priority in the last assessment and strategy, it continues to remain so at this time. Because we will address aquaculture issues through SMP updates categorized under the high-priority Cumulative and Secondary Impacts of Growth enhancement area, we are not assigning aquaculture a high priority as a stand-alone assessment area.

2. Will the CMP develop one or more strategies for this enhancement area?

Yes X

No

Briefly explain why a strategy will or will not be developed for this enhancement area.

Ecology will not develop a stand alone strategy for aquaculture. However, we will work on aquaculture policy issues in the coming years through rulemaking on geoduck aquaculture, working with the State Ocean Caucus and other interests on aquaculture in offshore areas, and addressing aquaculture siting and permitting through SMP updates. Because aquaculture permitting is a component of SMP updates, this enhancement area will be addressed through our Cumulative and Secondary Impacts of Growth strategy. Also, because aquaculture siting will be addressed in our marine spatial planning work under the ocean resources strategy, this issue will be addressed through that work as well.

309 Strategy: Addressing Cumulative and Secondary Impacts of Growth through Shoreline Master Program Updates

I. Issue Area(s)

The proposed strategy or implementation activities will support the following priority (high or medium) enhancement area(s) (*check all that apply*):

- | | |
|---|--|
| <input checked="" type="checkbox"/> Aquaculture | <input checked="" type="checkbox"/> Cumulative and Secondary Impacts |
| <input type="checkbox"/> Energy & Government Facility Siting | <input checked="" type="checkbox"/> Wetlands |
| <input checked="" type="checkbox"/> Coastal Hazards | <input type="checkbox"/> Marine Debris |
| <input checked="" type="checkbox"/> Ocean/Great Lakes Resources | <input checked="" type="checkbox"/> Public Access |
| <input type="checkbox"/> Special Area Management Planning | |

II. Program Change Description

A. The proposed strategy will result in, or implement, the following type(s) of program changes (*check all that apply*):

- A change to coastal zone boundaries;
- New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;
- New or revised local coastal programs and implementing ordinances;
- New or revised coastal land acquisition, management, and restoration programs;
- New or revised Special Area Management Plans (SAMP) or plans for Areas of Particular Concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,
- New or revised guidelines, procedures and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government and other agencies that will result in meaningful improvements in coastal resource management.

B. Describe the proposed program change(s) or activities to implement a previously achieved program change. If the strategy will only involve implementation activities, briefly describe the program change that has already been adopted, and how the proposed activities will further that program change. (Note that implementation strategies are not to exceed two years.)

During the Fifth Improvement Grants phase, approximately 100 local governments will be working on and eventually adopting local SMPs. The Department of Ecology will provide guidance and technical assistance to local governments updating their SMPs, and will subsequently review and approve all SMPs. These SMPs, once approved by the federal Office of Ocean and Coastal Management (OCRM), will become an approved part of Washington's Coastal Zone Management Program. According to the statute, all local governments in the coastal zone should have submitted locally approved SMPs to Ecology by December 2015.

However, given the challenging budget situation in the state, there may be some delays in meeting this schedule.

As these SMPs are approved, implementation activities will begin in these jurisdictions. This will include technical assistance on proposed projects, assistance with compliance and monitoring activities, and legal assistance where appropriate.

III. Need(s) and Gap(s) Addressed

Identify what priority need the strategy addresses, and explain why the proposed program change or implementation activities are the most appropriate means to address the priority need. This discussion should reference the key findings of the Assessment and explain how the strategy addresses those findings.

The primary need addressed in our Cumulative and Secondary Impacts of Growth assessment is updating the 133 local government SMPs in our coastal zone (Cumulative and Secondary Impacts Gap #1). The proposed program change directly meets this need. It also fills the primary regulatory and policy needs defined in the public access (Public Access Gap #1), aquaculture (Aquaculture Gap #1), wetlands (Wetlands Gap #1), coastal hazards (Coastal Hazards Gap #1), and ocean resources (Ocean Resources Gaps # 1 and #2) sections of the assessment.

IV. Benefit(s) to Coastal Management

Discuss the anticipated effect of the program change or implementation activities including a clear articulation of the scope and value in improved coastal management and resource protection.

Washington's SMA shares the goals of the CZMA, namely the balancing of environmental protection, provision of public access, and prioritization of water-dependent uses where development is allowed in the shoreline. Under the SMA, all local governments in Washington State with "shorelines of the state" in their jurisdiction must develop Shoreline Master Programs to regulate development within these areas. When the SMA was passed in 1972, local governments began to develop SMPs. Most of these were developed between 1974 and 1978. Many of these have not been updated since their original adoption. These SMPs ensure that development along shorelines in Washington State is not conducted in a piecemeal manner. While allowing for appropriate development of our shorelines, SMPs:

- Help protect water quality for our marine waters, lakes and stream systems.
- Increase protection of lives and property from flood and landslide damage.
- Protect critical habitat as well as fish and wildlife.
- Promote recreational opportunities in shoreline areas.
- Reserve appropriate shoreline areas for water-dependant uses

Ecology adopted new SMP Guidelines in 2003 (please see the Introduction for a detailed explanation of the process of updating the SMP guidelines). The legislature subsequently amended the SMA to provide funding for local governments to update their SMPs and to lay out a schedule for these updates. In the coastal zone, 17 SMPs have already been approved by Ecology, 96 are underway, and 16 have yet to begin their comprehensive updates.

Under the new SMP Guidelines, all local governments in Washington State with “shorelines of the state” in their jurisdiction must develop updated SMPs. These new SMPs will result in a number of environmental benefits, including:

- Ensuring the overall health of shorelines and public waters by requiring “no net loss” of ecological functions
- Protection of water quality
- Reduction of impacts of hazards such as floods and landslides
- Protection of critical habitat for fish and wildlife.
- Restoration of unhealthy shorelines and increased health of public waters.

Updated SMPs also provide economic benefits to local governments, including:

- Protection of lives and property by keeping development from occurring in unstable or unsafe areas.
- Help for cities and counties to realize their vision for future waterfront development and uses.
- Provision of public access and recreational opportunities.
- Avoiding costly future restoration of degraded shorelines.

V. Likelihood of Success

Discuss the likelihood of attaining the proposed program change and implementation activities.

The state or territory should address: 1) the nature and degree of support for pursuing the strategy and the proposed change; and, 2) the specific actions the state or territory will undertake to maintain or build future support for achieving and implementing the program change, including education and outreach activities.

With the adoption of the SMP Guidelines by Ecology in December 2003, we completed a critical first step in improving Washington’s management of cumulative and secondary impacts. Now, implementation of these Guidelines, through development of updated SMPs, is occurring. This process is already underway, with a legislative deadline of 2015 for all local governments to submit updated SMPs to Ecology for approval.

A current priority for both the Governor and Ecology is cleaning up and restoring Puget Sound to health by 2020. The agency tasked with achieving this goal, the Puget Sound Partnership, has recognized SMP updates as an essential tool to achieving and maintaining a healthy Puget Sound. With the support of the Puget Sound Partnership, Ecology was able to secure \$7.5 million in grant funds in the current biennium to pass through to local governments engaged in SMP updates. We will need to secure additional state funds in future biennia in order to be able to update SMPs in the remainder of the coastal zone and the state according to schedule.

Ecology continues to undertake education and outreach activities to build support for SMP updates. We recently updated our web site with enhanced communications materials for citizens and local government shoreline planners. We hold quarterly meetings for these planners working on SMPs to ensure cooperation and coordination. We also communicate with other state, federal, and local agencies to ensure that they support the SMP update process and contribute to information, technical assistance, and public outreach needs of local governments.

VI. Strategy Work Plan

Using the template below, provide a general work plan that includes the major steps necessary for achieving the program change and/or implementing a previously achieved program change. The plan should identify significant projected milestones/outcomes, a schedule for completing the strategy, and budget estimates. If an activity will span two or more years, it can be combined into one entry (i.e., Years 2-3 rather than Year 2 and then Year 3). While the annual outcomes are a useful guide to ensure the strategy remains on track, OCRM recognizes that these benchmarks may change some over the course of the five-year strategy due to unforeseen circumstances. The same holds true for the annual budget estimates. If the state intends to fund implementation activities for the proposed program change, describe those in the plan as well. Further detailing of annual tasks, budgets, benchmarks, and work products will be determined through the annual award negotiation process.

Total Years: 2011 - 2015

Total Budget: \$1,987,200

Final Outcome(s) and Products:

- Completed SMP Handbook
- ~30 locally adopted SMPs (out of 106 remaining)
- ~30 Ecology-approved SMPs (out of 112 remaining)
- Technical assistance in support of SMP implementation to 17 local governments with recently approved SMPs and all additional local governments that receive approval for SMPs during the 2011-2015 assessment round

Year(s): 2011

Description of activities:

- Provide technical assistance and guidance to ~35 of the 116 local governments in the Puget Sound area currently working on completing or beginning implementation of SMP updates
- Review and approve ~30% of all locally adopted and formally submitted SMPs
- Initiate implementation activities for SMPs approved since 2009

Outcome(s):

- ~10 new locally adopted SMPs (some of these may be completed before the beginning of FFY2011)
- ~8 new SMPs approved by Ecology
- Completion of the SMP Handbook

Budget: \$432,000

Year(s): 2012

Description of activities:

- Provide technical assistance and guidance to the ~22 of the 83 local governments in the Puget Sound area currently working on SMP updates
- Review and approve all locally adopted and formally submitted SMPs
- Continue implementation activities for SMPs approved since 2010
- Continue to update SMP handbook and other guidance documents as needed

Outcome(s):

- ~16 locally adopted SMPs
- ~13 new SMPs approved by Ecology
- Updated relevant guidance provided to local jurisdictions

Budget: \$388,800

Year(s): 2013

Description of activities:

- Provide technical assistance and guidance to the ~9 of the 33 local governments in the Puget Sound area currently working on SMP updates
- Begin grant negotiations and start work on ~4 of the 16 outer coast and lower Columbia River SMPs in the coastal zone
- Review and approve all locally adopted and formally submitted SMPs
- Continue implementation activities for SMPs approved since 2011
- Continue to update SMP handbook and other guidance documents as needed

Outcome(s):

- ~4 grant agreements negotiated
- ~9 locally adopted SMPs
- ~9 new SMPs approved by Ecology
- Updated relevant guidance provided to local jurisdictions

Budget: \$388,800

Year(s): 2014

Description of activities:

- Provide technical assistance and guidance to the ~4 local governments on the outer coast and lower Columbia River currently working on SMPs updates
- Review and approve all locally adopted and formally submitted SMPs
- Continue implementation activities for SMPs approved since 2012
- Continue to update SMP handbook and other guidance documents as needed

Outcome(s):

- Technical assistance to ~4 local governments
- Updated relevant guidance provided to local jurisdictions

Budget: \$388,800

Year(s): 2015

Description of activities:

- Provide technical assistance and guidance to the ~4 local governments on the outer coast and lower Columbia River currently working on SMPs updates

- Review and approve all locally adopted and formally submitted SMPs
- Continue implementation activities for SMPs approved since 2013
- Continue to update SMP handbook and other guidance documents as needed

Outcome(s):

- 16 locally adopted SMPs
- 16 new SMPs approved by Ecology
- Updated relevant guidance provided to local jurisdictions

Budget: \$388,800

VII. Fiscal and Technical Needs

- A. Fiscal Needs: If 309 funding is not sufficient to carry out the proposed strategy, identify additional funding needs. Provide a brief description of what efforts the applying agency has made, if any, to secure additional state funds from the legislature and/or other sources to support this strategy.**

Washington State’s budget, like many others nationwide, is experiencing dramatic shortfalls. Ecology’s budget has already been significantly reduced and more cuts are expected. In the face of these challenges, Ecology was able to secure an additional \$3.6 million to provide grants and staffing support for SMP updates in the Puget Sound region in the 2011-2013 biennium.

This additional funding demonstrates the commitment agency leaders and the legislature have to completing the SMP update process. However, federal CZMA funding is still essential in completing this significant task of updating shoreline regulations throughout the state’s coastal zone. Section 309 funding was completely dedicated to this effort in the last funding period. We propose to spend the bulk of our Section 309 funding on SMP updates in the coming round as well. Other, separate SMP updates are also funded with Section 306 funds and state matching dollars. Without these federal resources, we would be unable to complete this legislatively mandated work.

- B. Technical Needs: If the state does not possess the technical knowledge, skills, or equipment to carry out the proposed strategy, identify these needs. Provide a brief description of what efforts the applying agency has made, if any, to obtain the trained personnel or equipment needed (for example, through agreements with other state agencies).**

No additional technical needs are anticipated to be needed to carry out this strategy.

309 Strategy: Ocean Resources

I. Issue Area(s)

The proposed strategy or implementation activities will support the following priority (high or medium) enhancement area(s) (*check all that apply*):

- | | |
|---|--|
| <input checked="" type="checkbox"/> Aquaculture | <input checked="" type="checkbox"/> Cumulative and Secondary Impacts |
| <input checked="" type="checkbox"/> Energy & Government Facility Siting | <input type="checkbox"/> Wetlands |
| <input checked="" type="checkbox"/> Coastal Hazards | <input type="checkbox"/> Marine Debris |
| <input checked="" type="checkbox"/> Ocean/Great Lakes Resources | <input type="checkbox"/> Public Access |
| <input type="checkbox"/> Special Area Management Planning | |

II. Program Change Description

A. The proposed strategy will result in, or implement, the following type(s) of program changes (*check all that apply*):

- A change to coastal zone boundaries;
- New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;
- New or revised local coastal programs and implementing ordinances;
- New or revised coastal land acquisition, management, and restoration programs;
- New or revised Special Area Management Plans (SAMP) or plans for Areas of Particular Concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,
- New or revised guidelines, procedures and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government and other agencies that will result in meaningful improvements in coastal resource management.

B. Describe the proposed program change(s) or activities to implement a previously achieved program change. If the strategy will only involve implementation activities, briefly describe the program change that has already been adopted, and how the proposed activities will further that program change. (Note that implementation strategies are not to exceed two years.)

In March 2010, the Washington State Legislature enacted a new state law on marine spatial planning (SSB 6350). Under the new law, an interagency team (comprised of the State Ocean Caucus) must develop recommendations to the legislature about how to approach to marine spatial planning in Washington. A key element of this is figuring out how to integrate marine spatial planning into existing state management plans and authorities. In the report, the State Ocean Caucus must identify major needs for conducting marine spatial planning, including gaps in management and data. These gaps are important to understand what the state needs and how to do marine spatial planning in Washington, such as the scope, cost, and process. A report is due to the Washington Legislature by December 15, 2010.

The legislature did not provide money necessary for the state to develop a marine spatial plan. Once federal and other non-state funds become available then the state will conduct planning. At that time, with funds to do planning, the state will further scope out and refine the actual planning

process. The initial report will be used in the development of grant proposals and other requests for funding from federal or other non-state entities to support the development of a complete marine spatial plan (MSP).

If the state receives federal or non-state funds, the law directs state agencies to:

- Conduct comprehensive marine spatial planning for all of Washington's waters.
- Compile and incorporate spatial data into current plans such as the Puget Sound Action Agenda.
- Explore developing joint marine spatial plans with other governments in the region (other West Coast states, federal agencies, and provinces).
- Develop guidance on the operation and siting of renewable energy facilities in marine waters.
- Submit a complete MSP to OCRM for inclusion as one of Washington's enforceable policies in our CZMP.

As federal or non-state funds are available for this activity, the law also specifically tasks Ecology with working with others to compile marine spatial data to incorporate into ongoing planning efforts as well as into any potential, future marine spatial plan.

In addition to launching efforts to develop a marine spatial plan, Ecology is working with local governments to update SMPs throughout the coastal zone. Cities and counties that border along the outer coast are required to meet the requirements of the Ocean Resources Management Act (ORMA), and address the ocean use guidelines in their SMPs. Those guidelines establish policies and planning criteria for ocean resources. Two counties and seven cities with jurisdiction over outer coast marine waters are required to adopt comprehensively updated SMPs by 2015.

This strategy will provide coordination and oversight for the state's marine spatial planning effort to support the efforts progress over the next 5 years, as well as provide the link between any spatial planning policies and authorities and the Coastal Zone Management Program to ensure they are developed consistently with the CZMA and Washington's federal consistency program. In addition, this strategy will include a particular emphasis on working with outer coast local jurisdictions on incorporating ocean use guidelines into their SMPs, which also will be ultimately submitted as program changes to the WCZMP.

III. Need(s) and Gap(s) Addressed

Identify what priority need the strategy addresses, and explain why the proposed program change or implementation activities are the most appropriate means to address the priority need. This discussion should reference the key findings of the Assessment and explain how the strategy addresses those findings.

Washington's 15 coastal counties contain over 3,600 square miles of marine waters and over 3,000 linear miles of marine shoreline. As a result, our state is particularly reliant on healthy marine waters and resources. A wide range of marine uses, as described in the assessment above, drive the

state's economy such as maritime, shipping, and fishing and shellfish industries; boating and other recreational opportunities; and tourism. However, these uses sometimes conflict with each other and new uses like renewable energy may present potential additional conflicts in the future.

As mentioned in the Ocean Resources enhancement area assessment, several large data and policy gaps exist. These include:

- A lack of comprehensive guidance or a plan for guiding siting and operation of a variety of ocean uses (Ocean Resources Gap #5).
- Incomplete or lacking key spatial/baseline data for ocean use siting such as human uses, energy infrastructure and resources, seafloor habitats, etc (Ocean Resources Gaps #3, 4, & 6)

Furthermore, the effectiveness and implementation of existing ocean resource policies and management rules (especially a CZMP enforceable policy, the Ocean Resources Management Act) could be enhanced through development of a marine spatial plan. The existing rules outline general policies and standards, but these do not have a spatially explicit plan. A marine spatial plan could also provide a mechanism for more coordinated implementation of these policies as well as improve the consistency of state and local review and decision-making on projects.

These data and policy gaps can be largely filled through the gathering of data in support of a MSP and the eventual development, adoption, and implementation of that MSP.

IV. Benefit(s) to Coastal Management

Discuss the anticipated effect of the program change or implementation activities including a clear articulation of the scope and value in improved coastal management and resource protection.

Protecting and sustaining our marine resources for the future, while allowing appropriate uses in the right locations is critical. Marine spatial planning is a process that can help us achieve this balance in a comprehensive way. Management gaps currently exist in addressing comprehensive siting for new, expanding, or conflicting uses of ocean resources, particularly proposals for marine renewable energy projects.

Marine spatial planning also can improve the assessment of cumulative impacts across various sectors of activities occurring in and affecting the marine environment and identify spatial management strategies that will help sustain coastal and ocean resources as well as coastal communities over the long-term. Finally, a marine spatial plan assists in coordinating not just the necessary spatial information, but also in setting and implementing the common goals, policies and management for marine and coastal activities and resources. This strategy will assist in securing resources to develop a MSP and in the eventual development of that plan.

V. Likelihood of Success

Discuss the likelihood of attaining the proposed program change and implementation activities. The state or territory should address: 1) the nature and degree of support for pursuing the

strategy and the proposed change; and, 2) the specific actions the state or territory will undertake to maintain or build future support for achieving and implementing the program change, including education and outreach activities.

The members of the State Ocean Caucus are committed to completing a report to the legislature by December of 2010. During and after that time, Washington intends to seek federal or other non-state funding to complete data collection and MSP development. Members of the State Ocean Caucus will devote time to seeking out and pursuing funding opportunities. The Governor's office and Ecology staff will also coordinate these opportunities and proposals with currently developing plans for addressing regional marine spatial planning through the West Coast Governors' Agreement on Ocean Health. Funding proposals will also include requests for education and outreach support. Since this is a large priority of the federal government as well as many private foundations, there may be resources available to implement the activities needed to develop a marine spatial plan for Washington.

Ecology will also have a graduate fellow on Marine Spatial Planning from October 2010 through June 2011 who will help advance MSP program activities such as inventorying and analyzing spatial data and data gaps, researching data tools and management, identifying and advancing funding proposals, coordinating with other agencies and stakeholders, researching outstanding questions and evaluating options, and advancing other next steps identified in the report to the legislature. This will assist the state in building support for marine spatial planning.

As funding allows, other specific activities that the state may take to build support for this program change include:

- Collecting, compiling, managing, and analyzing spatial data.
- Coordinating with other jurisdictions and building the necessary organizational structures, processes, and agreements to facilitate development of a marine spatial plan.
- Conducting education and outreach to a variety of audiences including through workshops, conferences and meetings.
- Determining a more specific work plan for developing a marine spatial plan, including defining scope of planning issues.
- Developing the marine spatial plan.

VI. Strategy Work Plan

Using the template below, provide a general work plan that includes the major steps necessary for achieving the program change and/or implementing a previously achieved program change. The plan should identify significant projected milestones/outcomes, a schedule for completing the strategy, and budget estimates. If an activity will span two or more years, it can be combined into one entry (i.e., Years 2-3 rather than Year 2 and then Year 3). While the annual outcomes are a useful guide to ensure the strategy remains on track, OCRM recognizes that these benchmarks may change some over the course of the five-year strategy due to unforeseen circumstances. The same holds true for the annual budget estimates. If the state intends to fund implementation activities for the proposed program change, describe those in the plan as well. Further detailing of annual tasks, budgets, benchmarks, and work products will be determined through the annual award negotiation process.

Total Years: 2011 - 2015

Total Budget: \$460,000

Final Outcome(s) and Products: Marine spatial plan authorities and/or policies, and revisions to 2 counties and 7 city SMP ocean use guidelines submitted to OCRM as part of the CZMP

Year(s): 2011

Description of activities:

- Identifying and seeking funding for a variety of priority activities, including data collection
- Setting up any necessary organizational structures and/or cooperative agreements
- Identifying work plan elements and focus for marine spatial planning efforts
- Conducting education and outreach to a variety of audiences
- Oversee any specifically funded projects, such as data gap analyzes, data collection or workshops/conferences/meetings.

Outcome(s):

- A more specific work plan for developing a marine spatial plan for both the state and the West Coast region.
- Cooperative agreements established for accomplishing marine spatial planning in the state and region.

Budget: \$100,000

Year(s): 2012

Description of activities:

- Continue to seeking funding for priority MSP activities
- Conducting education and outreach on MSP to a variety of audiences
- Oversee any specifically funded MSP projects
- Other specific activities and outcomes for years beyond 2011 will be dependent upon receipt of non-state funding for development of the MSP.

Outcome(s):

- Complete MSP work plan elements identified for 2012
- Implement MSP cooperative agreements

Budget: \$90,000

Year(s): 2013

Description of activities:

- Begin work with the two counties and seven cities required to address the ocean use guidelines through their SMPs
- Develop guidance on ocean use guidelines
- Continued work on timely aspects of marine spatial planning process

Outcome(s):

- Completed guidance on how to address ocean use guidelines through SMPs
- Complete MSP work plan elements identified for 2013
- Implement MSP cooperative agreements

Budget: \$90,000

Year(s): 2014

Description of activities:

- Continued technical assistance to two counties and seven cities required to address the ocean use guidelines through their SMPs
- Continued work on timely aspects of marine spatial planning process

Outcome(s):

- Technical assistance to 9 local governments
- Complete MSP work plan elements identified for 2014
- Implement MSP cooperative agreements

Budget: \$90,000

Year(s): 2015

Description of activities:

- Provide technical assistance and guidance to the ~4 local governments on the outer coast and lower Columbia River currently working on SMPs updates
- Assist regional staff in reviewing and approving locally adopted and formally submitted SMPs that address ocean use guidelines
- Continued work on timely aspects of marine spatial planning process

Outcome(s):

- 9 locally adopted SMPs that address ocean use guidelines
- Complete MSP work plan elements identified for 2015
- Implement MSP cooperative agreements

Budget: \$388,800

VII. Fiscal and Technical Needs

- A. Fiscal Needs: If 309 funding is not sufficient to carry out the proposed strategy, identify additional funding needs. Provide a brief description of what efforts the applying agency has made, if any, to secure additional state funds from the legislature and/or other sources to support this strategy.**

As mentioned in the previous strategy, Washington State's budget, like many others nationwide, is experiencing dramatic shortfalls. Ecology's budget has already been significantly reduced and more cuts are expected. The MSP bill passed by the legislature recognizes that there are not currently sufficient state funds to support development of a complete MSP. Therefore, the legislation anticipates that the execution of the MSP will only occur upon securing additional federal or other non-state funds for such a project.

However, Coastal and Marine Spatial Planning is a current priority of the federal government as well as many private foundations. It is likely that funding will be made available to support MSP activities through existing federal grant programs. It is possible that new sources of federal funds may be made available as well. Finally, private foundations have already funded MSP activities in several states. Washington State is currently exploring these other funding options to support MSP in the state.

Additional funding required for developing a marine spatial plan may be substantial. Funding will be needed for the following broad categories of work:

- Collecting, compiling, managing, and analyzing spatial data, including conducting an ecosystem assessment; seeking scientific and technical expertise and input; developing maps and plan scenarios.
- Coordinating and overseeing the planning process with other jurisdictions (local, state, federal and tribal).
- Conducting public involvement as part of plan development including through workshops, conferences and meetings.
- Scoping and developing the draft plan including alternatives and implementation strategies and adopting a final plan.

Our work on implementing ocean use guidelines through SMP updates is also supported by state funds and our work on the 309 strategy focused on cumulative and secondary impacts of growth. Work funded under Section 309 will specifically address implementing ocean use guidelines, but success in that work requires resources to provide technical assistance to local governments on other aspects of SMPs as well as conduct review and approval.

- B. Technical Needs: If the state does not possess the technical knowledge, skills, or equipment to carry out the proposed strategy, identify these needs. Provide a brief description of what efforts the applying agency has made, if any, to obtain the trained personnel or equipment needed (for example, through agreements with other state agencies).**

Ecology has many of the existing technical tools and skills needed to advance marine spatial planning. In particular, the Coastal Atlas already provides a web-accessible tool to view a variety of spatial data on the marine environment. However, this tool could be improved to meet the needs of marine spatial planning including identifying and incorporating additional spatial data sets and adding other functions such as for analyzing or downloading data. The state is pursuing options for capturing federal datasets housed by the Multiple Use Marine Cadastre and providing these through the Washington Coastal Atlas. Additional resources would also be beneficial to address other related technical issues such as creating a single access site for searching, viewing and downloading geospatial data and collecting new data (especially human use or seafloor data) that is specifically needed to support marine spatial planning.

VIII. Projects of Special Merit (Optional)

If desired, briefly indicate what PSMs the CMP may wish to pursue to augment this strategy. Any activities that are necessary to achieve the program change or that the state intends to support with baseline funding should be included in the strategy above. The information in this section will not be used to evaluate or rank PSMs and is simply meant to provide the CMPs the option to provide additional information if they choose. PSM descriptions should be kept very brief (e.g., undertake benthic mapping to provide additional data for ocean management planning). Do not do provide detailed project descriptions that would be needed for the PSM competition.

There are numerous projects Ecology would like to undertake that could improve our ability to assist local governments in updating SMPs in a timely and efficient manner. These include ongoing data needs such as aerial photography and feeder bluff mapping as well as detailed guidance needs such as guidance on freshwater riparian habitat projection. In addition, several area consultants with experience assisting local governments in updating SMPs embarked on a project entitled: "Opportunities to Improve Shoreline Management in Puget Sound." This project involved surveying a wide range of local government staff, non-governmental organizations, tribes, and private citizens to solicit suggestions for improving the SMP update process. Their final paper included three recommended priority actions, including: Improve the Linkage between Science and Policy; Make the Process Efficient; and Increase the Certainty of the Review and Approval Process. These three recommended actions could result in potential future projects of special merit.

As discussed in the Ocean Resources enhancement area assessment and the Marine Spatial Plan strategy, Washington is currently in the early stages of creating a strategy for the development of a marine spatial plan. Once this strategy is completed (by December 2010), Ecology and the other state agencies responsible for its creation may use this strategy as a resource for securing funds to develop a marine spatial plan. By law, Ecology would be required to submit any completed marine spatial plan to OCRM for inclusion in our CZMP. As a result, we believe that a portion of marine spatial plan development would be an excellent candidate for a 309 project of special merit in the future.

5-Year Budget Summary by Strategy

At the end of the Strategy section, please include the following budget table summarizing your anticipated Section 309 expenses by strategy for each year.

Strategy Title	Year 1 Funding	Year 2 Funding	Year 3 Funding	Year 4 Funding	Year 5 Funding	Total Funding
Cumulative and Secondary Impacts	\$432,000	\$388,800	\$388,800	\$388,800	\$388,800	\$1,987,200
Marine Spatial Planning	\$100,000	\$90,000	\$90,000	\$90,000	\$90,000	\$460,000
Total Funding	\$532,000	\$478,800	\$478,800	\$478,800	\$478,800	\$2,660,000

Appendix A - Public Comments and Responses

Ecology received five sets of written comments regarding the Draft Section 309 Assessment and Strategy document. Comments are summarized below and followed by Ecology's response. While all comments were taken into account when revising this draft, specific responses are provided only for comments directly relating to the 309 Assessment and Strategy process and document.

**Laura Hendricks, Chair
Shorelines and Aquaculture
Sierra Club, Cascade Chapter**

Comment: We are concerned regarding the lack of complete guidance on the marine debris and aquaculture areas that were not addressed.

Response: The purpose of the Section 309 Assessment and Strategy document is not to provide specific guidance on enhancement area topics (see pages 2-4 for a detailed explanation of the requirements and limitations of the 309 document). However, as part of our responsibility to implement the SMA and SMP guidelines, Ecology intends to develop guidance for local governments on how to address aquaculture and its impacts during their SMP review and subsequent updates.

Comment: The industrial plastics now being used in the aquaculture industry have been washing up on shorelines throughout South Puget Sound, but are not even mentioned in the marine debris section.

Response: Debris was mentioned as a potential use conflict arising from intertidal geoduck operations. It has now been added as a potential use conflict arising from bag and bottom culture as well.

Comment: Contrary to the requirements of HB2220, marine debris has not been quantified or even discussed as a major issue. Citizens continue to send in pictures and You tubes to state agencies that contain pictures of the ever growing plastic marine debris and there is no action by any state agency.

Response: HB2220 outlines specific requirements for the Department of Ecology and other state agencies that lie outside the parameters of this report. Because this issue was taken up by the Shellfish Aquaculture Regulatory Committee (SARC) and is being further addressed through already funded permitting processes, it was not ranked as a high priority issue for this particular funding source (see page 72 for an explanation of priority ranking for aquaculture).

Comment: We have requested the Department of Fish and Wildlife aquatic farm registration with no success. This report cited on Page 74 has not been made available to the public.

Response: Page 74 of the public review draft is the first page of the Section 309 Strategy for Cumulative and Secondary Impacts and no reports are mentioned on this page. The CZM program does not maintain records related to aquatic farm registration. Ecology encourages the commenter to follow up with the Department of Fish and Wildlife regarding this concern.

Comment: Public access is an important item in this document, but yet the impacts of industrial aquaculture are not included in this section.

Response: This concern has been noted in the public access assessment in the final document.

Comment: We request that this draft report include more information on the aquaculture impacts and the plans for our state agencies to address them. These impacts have clearly been brought up in the Salmon Recovery documents, Fish and Wildlife Reports and are listed as a threat to habitat and biodiversity in the Puget Sound Partnership documents. It is time that we take action and not just keep putting these issues on paper with no plan to address them if we are truly looking at a healthy Puget Sound and coastal areas.

Response: The purpose of the Section 309 Assessment and Strategy is to provide a broad overview of each enhancement area, and point out potential concerns or use conflicts. This document is not intended to provide a detailed analysis of each enhancement area. The resource characterization table identifies a wide array of potential threats and use conflicts surrounding aquaculture. This approach is consistent with that recommended in the Puget Sound Partnership's Action Agenda.

Bill Dewey
Director of Public Policy and Communications
Taylor Shellfish

Comment: I write to express our continued disappointment in the lack of prioritization for comprehensive aquaculture planning by Washington State.

Response: Though we have assigned a "medium" priority for aquaculture for the purposes of this assessment, which is tailored to Section 309 funding only, Ecology recognizes that aquaculture is an important issue. Ecology is currently addressing aquaculture through Shoreline Master Program (SMP) updates and will do so in the future through marine spatial planning efforts. Our work related to SMP updates and marine spatial planning are time sensitive and resource intensive, leaving few Section 309 resources left to address aquaculture outside this existing policy and planning priorities.

Comment: The United States has policies and efforts which I cited in my 2006 comments which are aimed at advancing domestic aquaculture production. Since these 2006 comments, NOAA

has also developed a 10 year plan for marine aquaculture and is updating their national aquaculture policy. Washington appears to be oblivious to these policies and efforts.

Response: Washington is aware of national policy changes and has been following NOAA's update of their national aquaculture policy. However, states are encouraged by NOAA to assign their own priority levels for aquaculture in their Section 309 Assessment and Strategy documents, resulting in our individualized priority of "medium."

Comment: The shellfish we grow provide valuable ecological services which could help eutrophic areas of Puget Sound. These services are recognized worldwide with shellfish restoration and culture encouraged for these ecological services. We are frustrated that Washington seems more intent on regulating than encouraging shellfish culture and recognizing or taking advantage of these ecological services. This aspect of shellfish culture at least deserves mention in the draft Assessment and Strategy.

Response: As mentioned in the response to the previous commenter, this document is not intended to be a comprehensive treatment of each enhancement area. The science surrounding the ecological relationship between aquaculture, native habitats, endangered species, and other water-dependent businesses continues to evolve. Accordingly, we have reworded a listed priority need to indicate that "continued study of the effects of intertidal geoduck aquaculture" is an important data gap that needs to be filled.

Comment: The draft Assessment and Strategy lacks any reference to the Puget Sound Partnership's Action Agenda.

Response: The Puget Sound Partnership's Action Agenda identifies a broad array of priority activities that will need to happen in order to achieve a healthy Puget Sound by 2020. Ecology has referenced many of these activities throughout this document. In both the assessment related to cumulative and secondary impacts of growth and the strategy we developed to further this high priority, we specifically mentioned the Partnership's Action Agenda. These sections reference the fact that the Action Agenda recognizes SMP updates as integral to achieving Puget Sound Health by 2020.

The first priority need identified in the aquaculture assessment is to update SMP guidelines to address aquaculture, which will directly address the Action Agenda's priority action dealing with resolving conflicts between upland uses and aquaculture operations. By working with local governments to update their SMPs, including aquaculture regulations contained therein, we contribute to carrying out the Action Agenda.

Comment: The draft Assessment and Strategy also lacks any reference to the passage of SB 6350 and Marine Spatial Planning efforts. While the state searches for funding to accomplish MSP, it would seem 309 might be a source and MSP should be mentioned in the document.

Response: This bill was explicitly referenced and explained in detail in both the ocean resources assessment (page 61) and the marine spatial planning strategy (page 79-80). Marine Spatial Planning is the focus of our second strategy, and components of this planning process were specifically identified as potential future projects of special merit. A reference to these sections has been added to the aquaculture section to highlight the breadth of this effort.

Comment: The draft Assessment and Strategy notes experiments with floating geoduck nurseries. These have moved beyond experiments.

Response: The reference to experimental floating geoduck nurseries has been removed and that sentence has been reworded to reflect progress in this area.

Michael Grayum
Executive Director
Northwest Indian Fisheries Commission

Comment: We are concerned that the assessment and review process outlined within this draft indicates that the Department of Ecology will not require from the local jurisdictions nor will itself conduct a comprehensive assessment from an ecosystem/watershed standpoint of the cumulative impacts from the proposed revisions. The current Shoreline Master Program review process address only county and municipality jurisdiction, with the required analysis and monitoring focus on conditions and actions within those jurisdictional boundaries. However, multiple shoreline master plans are contained within a single watershed or freshwater ecosystems within Western Washington. There is no discussion on how ecological-wide processes or restoration of ecological functions will be assessed and recovery to properly functioning conditions assured.

Response: The Shoreline Management Act gives local governments the authority to regulate only shorelines within their jurisdiction. RCW [90.58.340](#) states: "The regulatory function is limited to the territorial limits of shorelines of the state, RCW [90.58.140\(1\)](#), as defined in RCW [90.58.030\(2\)](#)." WAC 173-26-186(6) states, "The territorial jurisdictions of the master program's planning function and regulatory function are legally distinct. The planning function may, and in some circumstances must, look beyond the territorial limits of shorelines of the state."

In accordance with WAC 173-26-186, in the inventory and characterization process, the SMA guidelines require local governments to assess ecosystem processes and functions and their relationship to shoreline ecological functions. SMPs should include regulations to protect existing shoreline ecological functions. Ecology is also currently working on an EPA funded effort to characterize watershed conditions at multiple scales throughout the Puget Sound basin. Local governments will then use this characterization to inform SMP updates.

Comment: The Department's Assessment and Strategy for 2011-2015 and Shoreline Master Program Guidelines should be amended to ensure positive movement towards restoring properly functioning conditions within impaired watersheds. The program acceptance criteria

should be that collectively, the revised shoreline management plans within a watershed must show quantitatively that they will result in both the protection of shorelines and amelioration of cumulative and secondary impacts from development.

Response: The current standard for approving SMPs is no net loss of shoreline ecological functions, as indicated by WAC 173-26-186(8), which states that local master programs shall include policies and regulations designed to achieve no net loss of shoreline ecological functions. The SMP update process involves conducting a cumulative impacts analysis to determine whether or not the SMP will result in no net loss of shoreline ecological functions. If the analysis concludes that the SMP will result in a net loss, Ecology cannot approve the SMP. However, at this time there are no broad tools available to quantitatively measure cumulative impacts, and jurisdictions are responsible for developing their own processes.

Ecology is working to address this gap, and has developed and published general guidance for achieving no net loss, including a list of potential indicators that local governments can use. We are also supporting an EPA-funded project just getting underway in Clallam County that seeks to better quantify no net loss and to provide assistance to local governments who are required to achieve this in SMP updates. We expect this project will result in new tools that will help local governments meet the no net loss standards. Also, as part of permit review, local governments must analyze proposed developments and require mitigation for any resulting impacts. However, each jurisdiction can only regulate shorelines within their boundaries, and Ecology cannot require individual SMPs to account for changes beyond those boundaries.

Comment: The Assessment and Strategy for 2011-2015 should clearly detail how the Department's Shorelines Master Program planning process is integrated with the Puget Sound Salmon Recovery Plan to restore each watershed to its properly functioning condition.

Response: This Assessment and Strategy document does not provide extensive detail about all the requirements of the SMP update process – that information is detailed on our website and in guidance documents. However, local governments are required to coordinate with existing planning processes that affect their jurisdictions during the SMP update process. We will continue to provide guidance to local governments to ensure they work with Puget Sound recovery plans and the Action Agenda to ensure consistency to implement SMA and SMP.

In addition, we have worked closely with the Puget Sound Partnership as they work to implement the action agenda and salmon recovery plans in Puget Sound. Ecology has recognized at the Partnership plays a key role in bringing together stakeholders to help us ensure that SMP implementation plays an active role in Puget Sound recovery.

Comment: Statements are made through the Draft Section 309 Assessment and Strategy Report for 2011-2015 about the significant step these anticipated revisions represent and benefits that will result in protection of water quality, “no net loss” of ecological functions, protection of critical habitat, and restoration of unhealthy shorelines. However, no analysis or criteria for quantifying these benefits is presented. It is unclear how these benefits can be

assumed when the Department does not even have a monitoring or compliance program to assess current trends for such key habitat types as wetlands. This underscores the need for the inclusion of assessment criteria that will allow the Department to verify achievement of these anticipated environmental benefits at the end of the planning cycle.

Response: Ecology has developed separate guidance for local governments explaining how they can track no net loss over time using a group of indicators. In addition, as mentioned above, we are working to support a project currently underway in Clallam County that seeks to better quantify no net loss and to provide assistance to local governments who are required to achieve this in SMP updates.

In addition, local governments are required to demonstrate that updated SMPs are resulting in no net loss through the 7 year update cycle. If they are not, then local governments must revise SMPs to achieve this in the future. Local governments are responsible for the administration and management of their SMPs.

Comment: In summary, we are requesting the Department modify its assessment approach and strategy for the 2011-2015 cycles to assure that a comprehensive analysis of cumulative and secondary effects are conducted on a system wide or watershed basis. This request also extends clarifying within the draft how this 309 strategy contributes to and is integrated with the watershed recovery goals and objectives contained within the recovery plan for Puget Sound Chinook. Simply requiring local master programs to include policies and regulations designed to achieve “no net loss” of ecological functions provided by affected shorelines does not ensure recovery of system wide processes or already impaired watersheds. The 309 strategy for cumulative and secondary impacts should outline how the Department intends to achieve the protection and restoration of the shorelines natural ecological functions from a system wide or watershed basis.

Response: As mentioned in responses to comments above, local governments are only regulating shorelines within their jurisdictions. While watershed conditions must be taken into account, the SMA does not provide them with the ability to regulate shorelines outside their jurisdiction. “No net loss” is the current standard in the SMP guidelines, and therefore this is the standard we have referred to in this document.

Elliott Menashe
Greenbelt Consulting

Comments: Mr. Menashe is concerned with several development activities occurring along rural, unimpaired shorelines, including clearing and grading, LID practices, education, shoreline erosion control structures, bulkheads, and public access.

Ecology’s Response: Many of these issues will be addressed in the SMP handbook and other guidance developed under our “Cumulative and Secondary Impacts of Growth” strategy. In addition, the SEA program is currently embarking on an education strategy designed to inform

the public about shoreline function and processes. This effort will be funded in part with Section 306 dollars but, since it will not likely result in a program change, is not an eligible Section 309 activity. SEA program staff are also currently involved in an effort to update the online Coastal Atlas to include Public Access sites. This will include information on publicly accessible road ends. This effort is funded in part with Section 306 funds, and is described in the Public Access assessment.

Dale Beasley
Columbia River Crab Fisherman's Association

Comments: Mr. Beasley expressed concern that the Ocean Resources Management Act implementing guidelines (WAC 173-26-360 (2)) address activities occurring in Washington's coastal waters, but not impacts generated from activities offshore of Oregon, Alaska, California, or British Columbia. He asks that Ecology consider expanding the scope of the CZMP to allow review of projects outside of Washington's coastal zone.

Ecology's Response: WAC 173-260360 represents ORMA's implementing regulations. This act is one of six enforceable policies of the CZMP. It does not reflect the entire breadth of the coastal program. Because it is a state law, it cannot consider impacts of activities outside the state's jurisdiction.

In our recent Section 312 evaluation, Ecology expects to receive a program suggestion from OCRM that we begin working with the state of Oregon to negotiate an interstate consistency agreement, giving each state the authority to review projects occurring in the other state's coastal zone. Because this work has not yet begun, it is too early to propose this work as a Section 309 strategy during this time frame. However, we intend to undertake it using Section 306 funding. A description of this proposed work has been included in the "Ocean Resources" section of the assessment and strategy