

City of Westport Shoreline Master Program Update

Cumulative Impacts Analysis and No Net Loss Report

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REVISED DRAFT FOR ECOLOGY REVIEW

May 9, 2016

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LIST OF ABBREVIATIONS

BMP	Best Management Practices
CAO –	Critical Areas Ordinance
CERCLA –	Comprehensive Environmental Response, Compensation, and Liability Act
CIA –	Cumulative Impacts Analysis
City –	City of Westport
CZMA –	Coastal Zone Management Act
Ecology –	Washington State Department of Ecology
EPA –	United States Environmental Protection Agency
ESA –	Federal Endangered Species Act
FPA –	Washington State Forest Practices Act (Chapter 76.09 RCW)
MA –	Management Area
NOAA –	National Oceanic and Atmospheric Administration
NMFS –	National Marine Fisheries Service
NPDES –	National Pollutant Discharge Elimination System
OHWM –	Ordinary High Water Mark
ORMA –	Ocean Resources Management Act
RCW –	Revised Code of Washington
SCA –	Seashore Conservation Area
SEPA –	State Environmental Policy Act (Chapter 43.21C RCW)
SIC –	Shoreline Inventory and Characterization Report
SMA –	Shoreline Management Act (Chapter 90.58 RCW)
SMP –	Shoreline Master Program
State –	State of Washington
USACE –	United States Army Corps of Engineers
USFWS –	United States Fish and Wildlife Service

WAC – Washington Administrative Code
WDFW – Washington State Department of Fish and Wildlife
WDNR – Washington State Department of Natural Resources
WMC – Westport Municipal Code
WSPRC – Washington State Parks and Recreation Commission

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1 INTRODUCTION

1.01 DEPARTMENT OF ECOLOGY DIRECTION AND GUIDANCE

The Shoreline Management Act (Chapter 90.58 Revised Code of Washington (RCW)) (SMA) rules in Chapter 173-26 of the Washington Administrative Code (WAC) require local shoreline master programs (SMPs) to include goals, policies, and regulations to ensure that SMP implementation will "...achieve no net loss of ecological function..." over the long term. The SMP Guidelines (WAC 173-26-186(8)(d)) state that:

"To ensure no net loss of ecological functions and protection of other shoreline functions and/or uses, master programs shall contain policies, programs, and regulations that address adverse cumulative impacts and fairly allocate the burden of addressing cumulative impacts."

The SMP Guidelines discuss the concept of net loss in more detail in WAC 173-26-201(2)(c). An SMP must contain goals, policies, and regulations designed to direct development activities and uses in a manner that will prevent degradation of ecological functions relative to the existing conditions.

The city of Westport's (city's) updated SMP contains goals, policies, and regulations that prevent degradation of ecological functions relative to the existing conditions as documented in the *Shoreline Inventory and Characterization (SIC) Report* (Herrera and AHBL, 2015). For those projects that result in degradation of ecological functions, the required mitigation must return the resultant ecological function back to the baseline, as illustrated in Figure 1-1. In addition, the SMP must address adverse cumulative impacts and fairly allocate the burden of addressing cumulative impacts among development opportunities (WAC 173-26-186(8)(d)).

SMP updates: Achieving no net loss of ecological function

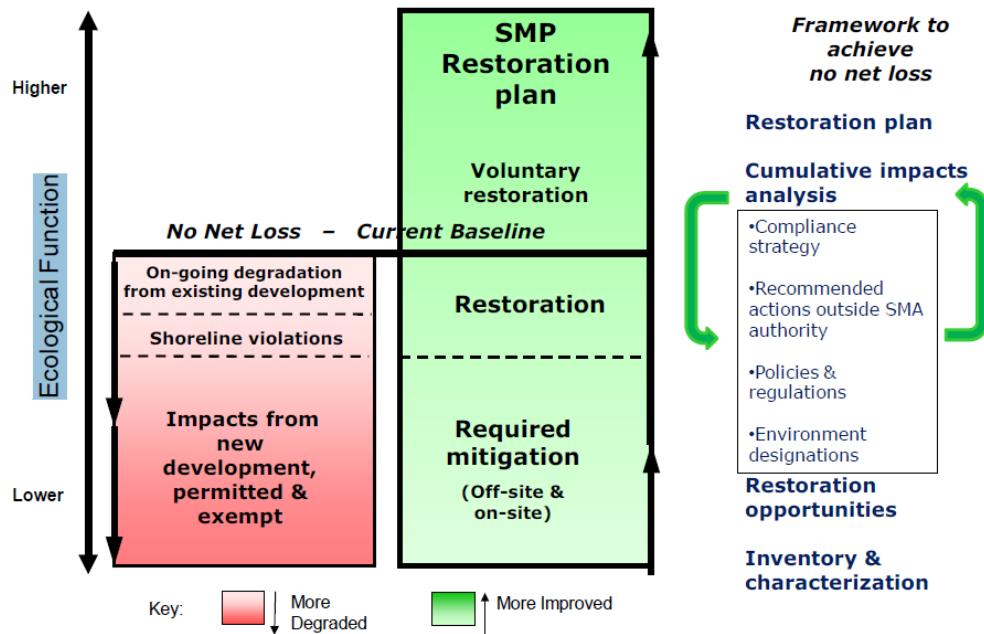


Figure 1-1. Shoreline Master Program Process for Achieving the No Net Loss Standard.
Source: Washington State Department of Ecology (Ecology) (2012)

The purpose of this *Cumulative Impacts Analysis* (CIA) is to ensure that implementation of the SMP update for the city, prepared by AHBL (2016), will not result in a net loss of shoreline ecological functions over the long term. Consistent with guidance from the Washington State Department of Ecology (Ecology), this CIA analyzes how the proposed SMP policies, regulations and environment designations meets this requirement. This analysis includes only those impacts that would result from development and uses within shoreline jurisdiction of the city, and subject to regulation under their SMP. Potential impacts of development outside shoreline jurisdiction are not considered in this CIA.

The CIA forecasts the estimated impacts of development in shoreline areas, taking into account the SMP policies, programs, and regulations, as well as:

- Existing conditions that affect the shorelines and relevant natural processes. The SIC provides this existing condition, or baseline, information.
- Reasonably foreseeable future development and use of the shorelines that is likely to occur during the next 20 years or so, based on the proposed shoreline environment

designations, proposed land use density and bulk standards, and current shoreline development patterns.

- Beneficial effects of any established regulatory programs under other local, state, and federal laws, such as the federal Clean Water Act.

To be consistent with the SIC, this analysis organizes the shorelines of the city into six shoreline reaches. The city has approximately 13 miles of marine shoreline associated with the Pacific Ocean and Grays Harbor and nearly 650 acres of water and shorelands in its city boundary.

According to RCW 35.21.160, the city's shoreline jurisdiction extends offshore to the three mile territorial limit of the state in the Pacific Ocean and to the middle of the marine channel between the cities of Ocean Shores and Westport and extends to the middle of Grays Harbor. For the purposes of this CIA, our analysis focused primarily on shoreline jurisdiction that is within the city's adopted municipal limits, but many of its findings would be applicable to the city's full shoreline jurisdiction as defined in RCW 35.21.160.

In accordance with Ecology guidance, the shoreline assessed in the SIC may contain a nested system of management areas (MAs) and reaches. However, since all of the city's shorelines are associated with a single marine watershed, it is appropriate to consider the entire city as within or containing a single MA. The MA was broken down into reaches for the purposes of the SIC and CIA.

The city was divided into six shoreline reaches shown in Figure 1-2 and listed below, based on areas having similar physical and ecological characteristics, land use, and development patterns.

1. Pacific Ocean South
2. Pacific Ocean North
3. Half Moon Bay
4. Westhaven
5. Bayfront North
6. Bayfront South

Figure 1-2. Shoreline Reaches within the Jurisdictional Boundaries of the City of Westport.



1.02 RELATIONSHIP TO SEPA

The State Environmental Policy Act (Chapter 43.21C RCW) (SEPA) requires an assessment of environmental impacts. The CIA is a supplement to the nonproject environmental review done under SEPA and is intended to address cumulative rather than isolated or individual impacts that might not be considered otherwise as part of the environmental checklist.

The SEPA review process is intended to provide a list of possible environmental impacts that may occur because of a project (SEPA project review) or change in policy (SEPA nonproject review). This helps identify potential impacts that may need to be mitigated, conditioned, or this may result in the denial of a project or proposal. This CIA is intended to look at impacts as a whole based on whether or not multiple similar projects collectively result in gradual, but significant impacts. While SEPA looks at impacts by topic and the effects they may have as a whole for the project area, the CIA examines impacts that may result from multiple projects over time.

1.03 ASSUMPTIONS

The CIA considered foreseeable impacts over a 20-year planning horizon and examines how provisions of the revised draft SMP dated May 9, 2016 are likely to affect existing conditions documented in the SIC. In addition, site-specific impacts are expected to be addressed on a case-by-case basis during individual shoreline project reviews.

1.04 DOCUMENT ROADMAP

This CIA summarizes existing conditions in the six shoreline reaches in the city, including shoreline characteristics, land use, public access, shoreline modifications, and ecological functions. It summarizes the applicable policies and regulations in the SMP that will act together to ensure that no net loss of ecological function occurs in shoreline jurisdiction. It identifies potential upland and in-water development opportunities within each reach.

Potential development opportunities were determined based on existing conditions, shoreline environment designations, zoning, and limiting environmental factors such as the presence of wetlands. This report details the potential impacts and risks to shoreline functions and processes, identifies anticipated development in each shoreline reach and how the SMP regulations would address this development, discusses how other local, state and federal regulations would address these potential impacts, and describes the net effect on ecological

functions and processes. Cumulative impacts analysis tables are included in Chapter 7. The tables describe the relationship between ecological function, potential alteration, resources at risk, and proposed SMP regulations and non-regulatory measures designed to assure no net loss, at a minimum.

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2 EXISTING CONDITIONS

This chapter summarizes information presented in the SIC. For each shoreline reach, this chapter presents a summary of shoreline characteristics and uses, and describes ecological functions (habitat, water quantity, water quality) considered to be at risk.

2.01 REACH 1 – PACIFIC OCEAN SOUTH

The Pacific Ocean South Reach within the city limits is approximately 65 acres in area. Land cover is comprised of barren land (59 percent), herbaceous (37 percent), open water (three percent), and developed-high intensity (less than one percent). Most of the reach is undeveloped beach and is used for recreational purposes. However, the reach does encompass portions of some single family and multi-family residences within 200 feet of the landward of the winter marram grass line of the Pacific Ocean.

2.01.01 SHORELINE CHARACTERISTICS

The Pacific Ocean South Reach is located on the southwest side of the city. It consists of the Pacific Ocean coast line with Ocean Avenue as the northernmost edge of the reach extending to the southern boundary of the city. The entire dune area in this reach is part of the Seashore Conservation Area (SCA). This area is managed by the Washington State Parks and Recreation Commission (WSPRC) and is available for public use. This area is regulated under Westport Municipal Code (WMC) 17.32.050(I) – Dune Protection Zone. Currently, limited uses are permitted within 200 feet of the marram grass line, and structures are not permitted within 50 feet of the seasonal high water line of any year-round body of water.

2.01.02 LAND USE

The zoning designations for Pacific Ocean South Reach are 92 percent Ocean Beach Residential and eight percent Mixed-Use / Tourist Commercial.

2.01.03 EXISTING PUBLIC ACCESS

The public can access the beach at access points at Ocean Avenue, Hancock Avenue, and Lila Avenue. The beach is available for public use within the SCA. Public Access to the beach at Hancock Avenue was identified as an opportunity to improve shoreline access.

2.01.04 SHORELINE MODIFICATIONS

There are no shoreline modifications within this reach.

2.01.05 ECOLOGICAL FUNCTIONS

The city's Pacific Ocean South Reach scored moderate or high for most water quality and habitat functions. Hydrologic functions are naturally absent from the reach due to the geography of the coastal beach. The reach contains an extensive dune grass community along its margin, which is unique habitat of local importance. The extensive dune grass provides a high level of function for sediment stabilization in terms of habitat and shoreline protection. The shoreline provides habitat for snowy plover and a variety of shorebirds. Most residential structures and roads are located outside shoreline jurisdiction in this reach, allowing for high level of habitat function based on a high degree of habitat complexity, vegetation diversity, and species use. The vegetation communities are in most cases only interrupted by walking paths leading from residences and street ends onto the beach.

The Pacific Ocean South reach is within the mapped FEMA 100-year floodplain. It provides habitat for snowy plover and a variety of shorebirds.

2.02 REACH 2 – PACIFIC OCEAN NORTH

The Pacific Ocean North Reach within the city limits is approximately 105 acres in area and includes the upland 200 feet landward of the winter marram grass line. Land cover is comprised of barren land (45 percent), open water (28 percent), herbaceous (12 percent), shrub/scrub (seven percent), emergent herbaceous wetlands (six percent), developed- medium intensity (one percent) and woody wetlands (one percent). Shoreline jurisdiction intersects a nearly 300-acre undeveloped parcel in the middle of the city, which Washington State Parks purchased in late 2015 using Recreation and Conservation Office grant money, to connect three state parks. The land is bordered on three sides by three different state parks - Westhaven State Park, Westport Light State Park, and the Seashore Conservation Area. The purchase connects the parks and adds a significant amount of new park land including more than a quarter-mile of ocean shoreline. The land is made up mostly of wetlands in a coastal dune landscape. The reach contains very little development and is open to the public with several access points within the reach.

Comment [NS1]: We have noted the purchase by WA State Parks.

2.02.01 SHORELINE CHARACTERISTICS

The Pacific Ocean North Reach is located on the northwest side of the city. It consists of the Pacific Ocean coastline with Ocean Avenue as the southernmost edge of the reach extending to the South Jetty to the north. Nearly all of the dune area in this reach is part of the SCA. This area is managed by the WSPRC and is available for public use. This area is regulated under WMC 17.32.050(I) – Dune Protection Zone.

2.02.02 LAND USE

The zoning designations for Pacific Ocean North Reach are 91 percent Recreation & Parks and nine percent Tourist Commercial.

2.02.03 EXISTING PUBLIC ACCESS

Public access to the Pacific Ocean beach in this reach is available at Ocean Avenue and Westhaven State Park. The Westport Light Trail, also known as the Dune Trail, travels through this reach. The trail is approximately 2.5 miles of paved trail. It travels the Pacific Ocean coast from Westhaven State Park to the Westport Light House.

2.02.04 SHORELINE MODIFICATIONS

There are no known shoreline modifications in this reach, other than the South Jetty, which bounds the north end of the reach.

2.02.05 ECOLOGICAL FUNCTIONS

The Pacific Ocean North Reach ranks similarly to the Pacific Ocean South Reach for ecological functions. Shoreline jurisdiction contains healthy vegetation communities that are mostly intact and disrupted only by trails and public use associated with the parks and SCA. Unlike the Pacific Ocean South Reach, shorebird concentrations are not mapped within the Pacific Ocean North Reach, although they are commonly observed in the reach. The reach provides a high level of habitat function with a diverse arrangement of native vegetation communities, habitat connectivity with potentially associated interdunal wetlands that are outside the mapped shoreline jurisdiction, and complex habitat structure.

The Pacific Ocean North Reach is within the mapped FEMA 100-year floodplain. The reach provides important physical space and conditions to support a variety of shoreline-dependent species including smelt, which are known to spawn on the beach.

2.03 REACH 3 – HALF MOON BAY

The Half Moon Bay Reach within the city limits is approximately 70 acres in area. Land cover is comprised of barren land (69 percent), open water (12 percent), emergent herbaceous wetlands (10 percent), herbaceous (seven percent), shrub/scrub (two percent), and developed-medium intensity (less than one percent). The current land use in this reach includes Westhaven State Park.

2.03.01 SHORELINE CHARACTERISTICS

The Half Moon Bay Reach is located on the north side of the city consisting of the Grays Harbor South Jetty, which is managed by the US Army Corps of Engineers (USACE). The South Jetty extends into the Pacific Ocean to the west and secures the entrance to Grays Harbor.

2.03.02 LAND USE

The zoning designations for Half Moon Bay Reach are 83 percent Recreation and Parks and 17 percent Tourist Commercial.

2.03.03 EXISTING PUBLIC ACCESS

Public access is available through Westhaven State Park, which is a 79-acre park with access to Half Moon Bay and the Pacific Ocean.

2.03.04 SHORELINE MODIFICATIONS

The South Jetty dominates the west end of this reach. In addition, beach nourishment is placed in this reach as a part of the USACE Grays Harbor dredge program.

2.03.05 ECOLOGICAL FUNCTIONS

Half Moon Bay Reach scored moderately high for ecological functions but exhibits some impaired functions primarily associated with the jetty and altered beach structure. However, the reach supports an important dune grass community, provides habitat for shorebirds, and is likely an important transitional area for migrating fish including salmon.

The Half Moon Bay reach is within the mapped FEMA 100-year floodplain. Although not mapped, the reach provides a habitat for shorebirds and is likely an important transitional area for migrating fish.

2.04 REACH 4 – WESTHAVEN

The area landward of the ordinary high water mark (OHWM) within the city limits in the Westhaven Reach is approximately 55 acres in area. Land cover is comprised of developed-medium intensity (46 percent), barren land (20 percent), developed-high intensity (12 percent), developed-low intensity (seven percent), herbaceous (seven percent), open water (five percent), and shrub/scrub (two percent). The current land use in this reach includes Westhaven Marina.

2.04.01 SHORELINE CHARACTERISTICS

Westhaven Reach is located on the north side of the city consisting of the Westhaven Marina. The shoreline is highly modified, with intensive water-oriented uses taking place in the reach.

2.04.02 LAND USE

Westhaven Reach is zoned for marine and recreational uses, as shown in Table 2-1. The majority of this reach is developed with water-oriented and water-related commercial and industrial uses. The marina is the most intense use within this reach, and most of the commercial uses in this reach rely upon the marina.

Table 2-1. Current Zoning Designations for the Westhaven Reach.

Zoning	Percentage of Reach
Marine Industrial	39%
Mixed-Use Tourist Commercial 2	25%
Mixed-Use Tourist Commercial 1	15%
Government	13%
Tourist Commercial	6%
Recreation & Parks	2%

2.04.03 EXISTING PUBLIC ACCESS

The Westhaven Marina provides, moorage for 900 vessels, and launching for commercial, charter, and sport fishing vessels. The Westport Marina Boat Launch consists of three paved launch lanes and parking for over 120 vehicles and trailers.

2.04.04 SHORELINE MODIFICATIONS

Shoreline modifications in the Westhaven Reach are extensive. The entire area in the reach is placed fill protected by riprap.

2.04.05 ECOLOGICAL FUNCTIONS

Westhaven Reach scored the lowest for ecological functions primarily due to impairments associated with shoreline modifications and developed conditions that restrict the development of natural habitats. The amount of impervious surface is estimated at 51 percent based on moderate and high-density development land cover, and land use may represent a potential water quality concern if adequate measures are not in place to reduce the potential for pollutants to enter the water. The shoreline in this reach is close to shellfish harvest areas but does not likely provide suitable conditions for shellfish. However, the reach provides suitable habitat for floating kelp, a relatively unique habitat locally. Westhaven Reach provides a habitat for shorebirds and is a spawning area for herring. The reach is also within the mapped FEMA 100-year floodplain.

2.05 REACH 5 – BAYFRONT NORTH

The Bayfront North Reach within the city limits landward of the OHWM is approximately 62 acres in area. Land cover is comprised of developed-low intensity (26 percent), emergent herbaceous wetlands (21 percent), herbaceous (13 percent), developed-medium intensity (11 percent), developed-open space (11 percent), woody wetlands (eight percent), shrub/scrub (five percent), hay/pasture (three percent), developed-high intensity (one percent) and open water (one percent). The Bayfront North Reach includes the Westport Airport.

2.05.01 SHORELINE CHARACTERISTICS

The Bayfront North Reach is located on the east side of the city consisting of the South Bay of Grays Harbor. The reach extends from the southern end of the Marina south to Pacific Avenue.

2.05.02 LAND USE

The zoning designations that are found in the Bayfront North Reach are provided in Table 2-2 below. This reach includes the airport. The city's approved Airport Layout Plan includes an expansion of the existing airport to include a longer runway and a parallel taxiway located north of the existing runway. Most of this reach is covered by marine and estuarine wetlands, and as such, future development is unlikely in these areas.

Table 2-2. Current Zoning Designations for the Bayfront North Reach.

Zoning	Percentage of Reach
Mixed-Use Tourist Commercial 1	47%
Marine Industrial	45%

Zoning	Percentage of Reach
Residential 1	5%
Recreation & Parks	3%

2.05.03 EXISTING PUBLIC ACCESS

Pacific Avenue Park is a two-acre undeveloped site with waterfront access located in this reach.

2.05.04 SHORELINE MODIFICATIONS

Shoreline modification is moderate (36 percent to 65 percent) throughout the reach.

Modifications are mostly associated with levees protecting the airport and marine industrial areas and channelization of estuarine streams, including Winter Creek.

2.05.05 ECOLOGICAL FUNCTIONS

Bayfront North Reach ranks high for most functional assessment criteria and high overall for ecological functions. Criteria related to water quality functions all rank high, primarily due to the presence of extensive salt marsh communities and eelgrass beds. Invasive European green crab known to inhabit the Bayfront North and Bayfront South Reaches could represent a habitat-limiting factor in the future if, for example, they out-compete native species for space or significantly alter conditions necessary for native species survival.

Dense multi-strata riparian vegetation and large woody debris are generally absent within the reach, indicating moderate levels of habitat function. However, this is a result of natural conditions and existing plant communities. Overall, the reach provides a diverse habitat structure and complexity to support numerous aquatic and shoreline-dependent species. Although they are likely smaller than what would be present in the absence of historical development and levee construction, the estuarine wetland is an important ecological feature that is not present in the more highly altered reaches of Westhaven Cove and Half Moon Bay to the north.

The Bayfront North Reach is within the mapped FEMA 100-year floodplain. It provides habitat for a variety of shorebirds and is a spawning area for herring.

2.06 REACH 6 – BAYFRONT SOUTH

The Bayfront South Reach within the city limits landward of the OHWM is approximately 39 acres in size. Land cover is comprised of herbaceous wetlands and vegetation (26 percent), developed-low intensity (18 percent), shrub/scrub (18 percent), woody wetlands (16 percent),

developed-open space (13 percent), developed-medium intensity (seven percent), and developed-high intensity (one percent).

2.06.01 SHORELINE CHARACTERISTICS

The Bayfront South Reach is located on the east side of the city consisting of the South Bay of Grays Harbor. The reach extends from the southern border of the city north to East Pacific Avenue.

2.06.02 LAND USE

The current zoning designations that are found in the Bayfront South Reach are provided in Table 2-3 below. Much of this reach is not zoned, as it is undevelopable wetland.

Table 2-3. Current Zoning Designations for the Bayfront South Reach.

Zoning	Percentage of Reach with Zoning Designations
Mixed-Use Tourist Commercial 1	39%
Mixed-Use Tourist Commercial 2	21%
Residential 2	18%
Residential 1	15%
Recreation & Parks	8%

2.06.03 EXISTING PUBLIC ACCESS

There are no designated public access points in this reach.

2.06.04 SHORELINE MODIFICATIONS

The primary shoreline modification in this reach is South Montesano Street. South Montesano Street is on fill along the harbor shoreline and has several outfalls discharging directly to the harbor.

Comment [VZK(2): Are these stormwater outfalls? Manholes generally don't "discharge".

Comment [NS3]: AHBL Response: We have updated this to "outfalls." They are culverts that are connected to catch basin which would be a type of outfall.

2.06.05 ECOLOGICAL FUNCTIONS

The Bayfront South Reach exhibits similar characteristics and functions as the Bayfront North Reach, and ranks the same across nearly all the assessment criteria for ecological functions. The Bayfront South Reach ranked low for habitat function associated with multi-strata vegetation. As described in the Bayfront North Reach, it is a result of natural limitations and the vegetation communities present. It is not an indicator of impaired habitat function due to land use or development within shoreline jurisdiction.

The Bayfront South Reach is within the mapped FEMA 100-year floodplain. It provides habitat for a variety of shorebirds.

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3 REASONABLY FORESEEABLE DEVELOPMENT

According to the SMP Guidelines, the CIA should evaluate the reasonably foreseeable future development and use of the shoreline that is likely to occur based upon the proposed shoreline environment designations within the planning period. The planning period for the SMP is 20 years.

3.01 CITY OF WESTPORT SHORELINE MASTER PROGRAM

This section provides a brief overview of the entire SMP and addresses how it protects ecological functions and processes from cumulative impacts. Revisions to the shoreline management policies and regulations were designed to improve protection of shoreline ecological functions and management of the resources identified in the SIC.

The SMP Guidelines include the following recommendations to help achieve no net loss of ecological functions:

- Restrict uses that are not water-dependent or preferred shoreline uses.
- Require that all future shoreline development, including water-dependent and preferred uses, be carried out in a manner that limits further degradation of the shoreline environment.
- Establish appropriate shoreline environment designations. The environment designations must reflect the findings of the SIC. A shoreline landscape that is relatively unaltered should be designated Urban Conservancy and protected from any use that would degrade the natural character of the shoreline.
- Require buffers and setbacks. Vegetated buffers and building setbacks from those buffers reduce the impacts of development in the shoreline environment.
- In all cases, require mitigation sequencing. The SMP must include regulations that require developers to follow mitigation sequencing: avoid impacts, minimize impacts, rectify impacts, reduce impacts over time, compensate for impacts, monitor impacts, and take corrective measures.

- Establish strong policies and regulations. Policies and regulations will define what type of development can occur in each shoreline environment designation, determine the level of review required through the type of shoreline permit, and set up mitigation measures and restoration requirements.

Measures described in Sections 3.01.01 and 3.01.05 below will implement the above recommendations, helping the city achieve no net loss of shoreline ecological functions.

3.01.01 ENVIRONMENT DESIGNATIONS

The first level of protection provided by the SMP is the recognition of four different shoreline environment designation types in the city: Aquatic, High Intensity, Shoreline Residential, and Urban Conservancy. These environment designations were assigned based primarily on existing and proposed land uses, which implicitly encompasses differing levels of ecological functions and different probabilities and potentials for improvements of ecological functions, as well as the location of critical areas and their buffers. The designated area for each shoreline environment designation is outlined below.

New environment designations were developed based on a review of existing development patterns, biological and physical characteristics of the shoreline, and goals and aspirations of the community as expressed through the city's Comprehensive Plan, and associated plans and regulations, and the SMP Guidelines (WAC 173-26-211). The four shoreline environment designations include either the upland property landward of the OHWM or water areas lying waterward of the OHWM. The approximate percentage of shoreline jurisdiction that is within each of the four shoreline environment designations in the city is displayed in Figure 3-1.

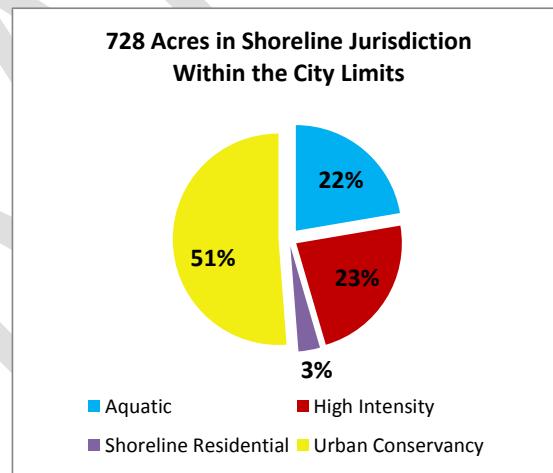


Figure 3-1. Shoreline Environment Designation Distribution

A. Aquatic

The Aquatic shoreline environment designation consists of all lands waterward of the OHWM of the waterways of the city. The Aquatic shoreline environment designation is assigned to protect, restore, and manage the unique characteristics and resources of

the areas waterward of the OHWM. All lands waterward of the OHWM in the city is in the Aquatic shoreline environment designation including the Pacific Ocean out to three nautical miles and to the center of the estuary channel.

B. High Intensity

The High Intensity shoreline environment designation consists of shoreline areas that currently support high intensity uses related to commerce or are suitable for high intensity water-oriented commercial and transportation uses. The purpose of the High Intensity shoreline environment designation is to provide for high intensity water-oriented commercial and transportation uses while protecting existing ecological functions and restoring ecological functions in areas that have been previously degraded.

The High Intensity shoreline environment designation is assigned to limited portions of Reach 3: Half Moon Bay, Reach 5: Bayfront North, and all of Reach 4: Westhaven that currently support high intensity uses related to commerce, industry, public facilities, or transportation, or are suitable for high intensity water-oriented uses.

Comment [VZK(4): Per the SMP (dated 11/2/2015) the purpose of the High Intensity designation is to provide for water-oriented uses. The designation criteria indicates this should be applied to areas that are suitable for water-oriented uses. The allowance for non-water oriented uses is a management policy.

Comment [NS5]: AHBL Response: Correction noted, thank you.

C. Shoreline Residential

The Shoreline Residential shoreline environment designation consists of shoreline areas that are predominantly single-family residential development or are planned and platted for residential development. The Shoreline Residential shoreline environment designation is designed to provide for residential uses where necessary facilities for development can be provided. An additional purpose is to provide public access and recreational uses.

The Shoreline Residential shoreline environment designation is assigned to Reach 1: Pacific Ocean South and a small portion of Reach 5: Bayfront North.

D. Urban Conservancy

The Urban Conservancy shoreline environment designation consists of those shorelines and shoreland areas that most closely match the following characteristics:

1. They are suitable for water-related or water-enjoyment uses;
2. Areas containing extensive forested and recreational uses;
3. They are open space, flood plain, wetland or wetland buffer, stream buffer or other sensitive areas that should not be more intensively developed;

4. They have the potential for development that is compatible with ecological restoration;
5. Areas with existing non-water dependent shoreline development that will not be expanded;
6. They have potential for ecological restoration;
7. Areas that retain important ecological functions, even though partially developed; or
8. Newly annexed areas where there is no designation.

The purpose of the Urban Conservancy shoreline environment designation is to protect and restore ecological functions of open space and other sensitive lands where they exist in urban and developed settings, while allowing a variety of water-oriented uses and uses consistent with effective environmental management. The designation will provide for ecological protection and rehabilitation in relatively undeveloped shoreline areas anticipated for or containing existing agricultural, recreation, and open space uses and limited development suitable to lands characterized by ecological and flood hazard constraints.

The Urban Conservancy shoreline environment designation is assigned to portions of Reach 1: Pacific Ocean South, Reach 3: Half Moon Bay and Reach 5: Bayfront North and to all of Reach 2: Pacific Ocean North and Reach 6: Bayfront South.

3.01.02 GENERAL GOALS, POLICIES, AND REGULATIONS

General goals, policies, and regulations are included in SMP Chapter 4. There numerous policies, with supporting regulations intended to protect the ecological functions of the shoreline and maintain, at a minimum, the current level of function. Revisions to the shoreline management policies and regulations were designed to improve protection of shoreline ecological functions and management of the resources identified in the SIC. Major sections of the proposed SMP summarized below.

The proposed regulations strengthen protection of natural resources within the city's shoreline jurisdiction in the following ways:

- SMP Chapter 3: Shoreline Environment Designations defines the four new shoreline environment designations discussed above that revise the existing environment designations previously adopted by city. Based on the findings of the SIC, these

shoreline environment designations more closely reflect current and proposed natural and developed conditions of the city's shorelines.

- SMP Section 4.03: Environmental Impacts and Mitigation contains the mitigation sequence that applies to all development in shoreline jurisdiction. This component of the SMP is critical to ensuring that no net loss of ecological function is achieved.
- SMP Section 4.04: Critical Areas and Shoreline Vegetation Conservation introduces critical area protections, which are further detailed in SMP Appendix 2: Critical Areas Regulations. New critical areas regulations have been drafted as a part of this SMP update, consistent with Revised Code of Washington (RCW) Chapter 90.58 and supporting WAC chapters. Prior to the SMP update process, the city did not have an adopted Critical Areas Ordinance (CAO). Critical Area Regulations that apply within shoreline jurisdiction are included in SMP Appendix 2: Critical Areas Regulations. These regulations must meet current Ecology standards for critical area protection.

Provisions for shoreline vegetation conservation within this section include regulations regarding natural plant clearing, vegetation restoration, and the control of invasive weeds and non-native species. These provisions apply to any activity, development, or use in shoreline jurisdiction unless otherwise stated, whether or not that activity requires a shoreline permit. Such activities include clearing, grading, grubbing, and trimming of vegetation. Provisions also apply to vegetation protection and enhancement activities.

This section also contains regulations defining shoreline buffers by shoreline environment designation in 4.04.02(B), providing protection for the Grays Harbor Estuary and Entrance Channel and the Pacific Ocean based on the critical areas buffers found in SMP Appendix 2: Critical Areas Regulations.

- SMP Section 4.05: Dune Management incorporates policies and relegations that apply to the Pacific Ocean dunes. This section also establishes a dune protection zone to provide additional ecological protection.
- SMP Section 4.06: Flood Hazard Management limits development within the floodway, floodplain, and CMZ.
- SMP Section 4.07: Ocean Management implements the Ocean Resources Management Act, (RCW 43.143.005 – RCW 43.143.030), enacted in 1989 by the Washington State Legislature, and further implemented by WAC 173-26-360.

Comment [VZK(6): RCW 90.58??

Comment [NS7]: AHBL Response: Correction made.

Comment [VZK(8): This is a conclusory statement that is best left out since we have reviewed drafts but not approved anything as of yet. Perhaps you left the word "must" out of the sentence: these regulations must meet....

Comment [NS9]: AHBL Response: Agree with correction

- SMP Section 4.09: Water Quality prevents impacts to water quality and stormwater quantity that would result in a loss of ecological functions, a significant impact to aesthetic qualities, or recreational opportunities.

3.01.03 SPECIFIC SHORELINE USE POLICIES & REGULATIONS

The general policies and regulations in SMP Chapter 5 apply to all developments, uses, or activities in any shoreline environment designation in shoreline jurisdiction.

- SMP Section 5.03: Allowed Shoreline Uses dictates what uses are allowed in shoreline jurisdiction based on shoreline environment designation. Uses are prohibited that would harm ecologically sensitive areas. SMP Table 5-1: Permitted, Conditional, and Prohibited Uses establishes the uses and development allowed within the four shoreline environment designations.
- SMP Section 5.04: Development Standards establishes density and maximum lot coverage of residential uses allowed in shoreline jurisdiction and shoreline height standards along the Grays Harbor Estuary and Entrance Channel and the Pacific Ocean.
- **SMP Section 5.06: Aquaculture includes detailed regulations for aquaculture in shoreline jurisdiction.**
- **SMP Section 5.07: Boating, Port, and Water Access Facilities primarily regulates activities in the Westport Marina including Port of Grays Harbor activities, boat launches, docks and piers, and the marina itself. Regulations are designed to protect aquatic resources.**
- SMP Section 5.08: Commercial Development encourages the development of water-oriented commercial developments, regulates commercial development in shoreline jurisdiction, and prohibits non-water-dependent commercial uses over water. The regulations are designed to protect against negative impacts to shoreline uses, resources, and values such as recreation, navigation, and public access.
- SMP Section 5.09: Forest Practices specifies that all forest practices are prohibited in shoreline jurisdiction.
- SMP Section 5.10: Industrial Development provides priority to industrial uses over all other uses in the High Intensity Shoreline Environmental Designation. The section also specifies that BMPs must be strictly adhered to for facilities and vessels. Provisions for buffers, waste disposal, the handling of toxic materials and accessory development are also addressed. Finally, the regulations specify that the location, design, and

Comment [VZK(10): This is incomplete, and mentions only 2 of many uses. Why are these the only two listed here?

Comment [NS11]: AHBL Response: Additions made.

construction of industrial development shall result no net loss of ecological functions or have significant negative impacts to shoreline use, resources, navigation, recreation, and public access.

- SMP Section 5.11: Mining requires all mining activities to be consistent with the SMP and allow for mining waterward of the OHWM only with a shoreline conditional use permit, and subject to specific use and activities standards. The regulations ensure that mining in the shoreline must be mitigated to avoid impact the natural character, resources, and ecology of shorelines.
- SMP Section 5.14: Residential Development regulates the division of land for housing development and all residential buildings, including single-family homes, related accessory structures, and multi-family buildings. Buildings must be set back from steep slopes and primary residential uses are prohibited over the water. Finally, each residential must be designed, sited, and constructed to assure no net loss of shoreline ecological functions and prevent the need for new structural flood hazard management measures to the greatest extent feasible.
- The remaining sections, SMP Section 5.12: Parking, SMP Section 5.13: Recreation, Section 5.15: Signs, SMP Section 5.16: Transportation Facilities, and SMP Section 5.17: Utilities, provide additional regulations to protect ecological values and aquatic resources.

3.01.04 SHORELINE MODIFICATION POLICIES AND REGULATIONS

Shoreline modifications are generally related to construction of a physical element such as a dike, breakwater, dredged basin, or fill, but they can include other actions such as clearing, grading, application of chemicals, or significant vegetation removal. Shoreline modifications usually are undertaken in support of or in preparation for a shoreline use; for example, fill (shoreline modification) required for a cargo terminal (boating, port, and water access facility use) or dredging (shoreline modification) to allow for a marina (boating, port, and water access facility use). Protective policies and regulations in Chapter 6: Shoreline Modification Policies and Regulations are as follows:

- SMP Section 6.01: Introduction establishes allowable shoreline modification activities within each of the shoreline environment designations.
- SMP Section 6.03: Clearing, Grading, and Fill establishes provisions to regulate speculative clearing and grading, require mitigation, and regulate these activities within wetlands, among other protective provisions.

- SMP Section 6.04: Dredging and Dredge Material Disposal provides a list of limited activities when dredging may be permitted, and requires mitigation sequencing and other protective measures to be utilized.
- SMP Section 6.05: In-Water Structure Shoreline Modifications includes regulations, which apply to in-water structures, such as dams, groins, and weirs. All in-water structures must be designed to be compatible with the long-term use of resources. Additionally, in-water structures must be designed, constructed, and maintained to ensure no net loss of shoreline ecological functions.
- SMP Section 6.07: Shoreline Stabilization contains numerous protective regulations including requirements that new development on eroding shorelines shall be designed to avoid shoreline stabilization during the life of the building or structure.

3.01.05 RESTORATION PLAN

The city has identified several potential restoration opportunities that would assist in restoring shoreline processes and functions along the shorelines of the city. These opportunities include improvement of Winter Creek and Grays Harbor to benefit juvenile salmonid rearing and installation of bioretention along Montesano Street to treat stormwater runoff. Detailed descriptions of the projects identified by the city are included in the Restoration Plan and are supported by the policies and regulations found in SMP Section 6.06: Restoration.

3.02 REACH 1 – PACIFIC OCEAN SOUTH

The Pacific Ocean South Reach zoning consists primarily of Ocean Beach Residential 1 (OBR1), with the remainder being zoned Mixed-Use Tourist Commercial 1 (MUTC-1). This area is regulated under WMC 17.32.050(I) – Dune Protection Zone. Currently limited uses are permitted within 200 feet of the marram grass line, and structures are not permitted within 50 feet of the seasonal high water line of any year-round body of water.

3.02.01 PATTERNS OF SHORELINE ACTIVITY

The Pacific Ocean South Reach contains 63 parcels, as shown in Table 3-1. Two parcels are protected from development by public or conservation group ownership, conservation easements, or similar mechanisms.

Table 3-1. Vacant and Developed Parcels in Pacific Ocean South Reach.

Pacific Ocean South Reach	Number of Parcels	Area in Acres
Vacant	36	66
Developed	27	43
Total	63	109

The reach is designated for Mixed-Use/Tourist Commercial and Ocean Beach Residential land uses. Land use designations in the reach include Mixed-Use Tourist Commercial 1 and Ocean Beach Residential 1. Most of the reach is undeveloped beach and is used for recreational purposes. However, the reach does encompass some single family and multi-family residences, which are the most intensive uses within the reach.

3.02.02 DEVELOPMENT POTENTIAL

A. Residential Development

The Pacific Ocean South Reach contains 60 parcels (89 acres) zoned Ocean Beach Residential 1 (OBR1). Of these parcels, 36 (66 acres) are vacant. There is residential development potential within this reach. However, depending on the lot, development may be located outside of shoreline jurisdiction.

B. Recreational Development

The beach is available for public use within the SCA. The city has identified some development opportunities relating to public recreation on the beach, including the addition of restrooms and parking. Future use and minor development supporting existing recreational uses should be expected within the 20-year planning horizon.

C. Shoreline Environment Designation

There are 36 vacant parcels totaling 66 acres intersecting shoreline jurisdiction, as shown in Table 3-2. Development potential exists in the Shoreline Residential and Urban Conservancy shoreline environment designations.

Table 3-2. Development Potential by Shoreline Environment Designation in the Pacific Ocean South Reach.

Shoreline Environment Designation	Number of Vacant Parcels	Area in Acres
Shoreline Residential	33	43
High Intensity	0	0
Urban Conservancy	3	23
Aquatic	0	0
Total	36	66

3.03 REACH 2 – PACIFIC OCEAN NORTH

The Pacific Ocean North Reach zoning consists primarily of Recreation & Parks, with the remainder being zoned Tourist Commercial (TC). The reach is primarily barren land. Shoreline jurisdiction intersects a large and undeveloped parcel in the middle of the city, which was acquired recently by Washington State Parks. Nearly all of the dune area in this reach is part of the SCA. This area is regulated under WMC 17.32.050(l) – Dune Protection Zone.

Comment [VZK(12]: Now owned by WA State Parks?

Comment [NS13]: AHBL Response: Correct. Addition made.

3.03.01 PATTERNS OF SHORELINE ACTIVITY

The Pacific Ocean North Reach contains three parcels, as shown in Table 3-3.

Table 3-3. Vacant and Developed Parcels in Pacific Ocean North Reach.

Pacific Ocean North Reach	Number of Parcels	Area in Acres
Vacant	1	293
Developed	2	259
Total	3	552

3.03.02 DEVELOPMENT POTENTIAL

A. Recreational Development

The Pacific Ocean North Reach contains two parcels zoned Tourist Commercial (TC), totaling 534 acres. One large vacant parcel exists within the reach, totaling nearly 300 acres. This parcel is designated Urban Conservancy Shoreline and was recently purchased by the Washington State Parks, and it could develop within the 20-year planning horizon as a recreational use. The parcel is also within the Dune Protection Zone identified in SMP Section 4.05: Dune Management. Due to the size of the vacant parcel, development could occur outside of shoreline jurisdiction and the regulations of the SMP would not apply.

The remaining two parcels in the reach are protected from development by public ownership and they will not develop with commercial, industrial, or residential uses. One parcel within this reach is zoned for Recreation & Parks use. Continued use should be anticipated.

3.04 REACH 3 – HALF MOON BAY

The Half Moon Bay Reach zoning consists primarily of Recreation & Parks, with the remainder being zoned Tourist Commercial (TC). The reach is primarily barren land. Half Moon Bay Reach contains the Grays Harbor South Jetty, which is managed by the USACE.

3.04.01 PATTERNS OF SHORELINE ACTIVITY

The Half Moon Bay Reach contains two parcels totaling 106 acres. The South Jetty is an in-water structure and is not a parcel. One parcel contains portions of the parking lot associated with Westhaven State Park; the remaining parcel is vacant.

3.04.02 DEVELOPMENT POTENTIAL

A. Commercial, Industrial, and Utility Development

The Half Moon Bay Reach contains one parcel (28 acres) zoned Tourist Commercial (TC) and designated High Intensity that is vacant. The parcel contains an unpaved parking area.

Development of structures on this parcel within shoreline jurisdiction is not anticipated due to its isolated location and use as a parking area for visitors accessing the beach area and oceanfront for recreational uses.

Comment [VZK(14): Because???

Comment [NS15]: AHBL Response: More detail was added.

B. Recreational Development

Westhaven State Park is located in this reach, and it is zoned for Recreation & Parks use. Continued recreational uses should be anticipated.

C. Shoreline Modifications

The parcel containing the parking area located on the northeast portion of the reach is experiencing erosion caused in part by the South Jetty. Beach nourishment consisting of dredge materials from USACE Grays Harbor dredging activities may be placed in this portion of the reach within the 20-year planning horizon.

Comment [BM16]: AHBL Response: More detail was added.

Comment [VZK(17): Is this the vacant parcel mentioned in A above?

Continued maintenance of the South Jetty should also be expected to occur within the planning horizon.

3.05 REACH 4 – WESTHAVEN

Zoning in Westhaven Reach consists primarily of marine and recreational uses. Westhaven Reach includes the marina and other water-oriented uses.

3.05.01 PATTERNS OF SHORELINE ACTIVITY

Westhaven Reach area landward of the OHWM contains 94 parcels, as shown in Table 3-4. The reach includes numerous water-related uses.

Table 3-4. Vacant and Developed Parcels in Westhaven Reach.

Westhaven Reach	Number of Parcels	Area in Acres
Vacant	40	2
Developed	54	2
Total	94	4

3.05.02 DEVELOPMENT POTENTIAL

A. Commercial, Industrial, and Utility Development

Westhaven Reach contains 90 parcels zoned Government (GOV), Mixed-Use Tourist Commercial 1 (MUTC-1), Mixed-Use Tourist Commercial 2 (MUTC-2), or Marine Industrial (MI). Of these parcels, 37 (~1.4 acres) are vacant. Commercial, industrial, and mixed-use development is likely to continue to occur in this reach due to the presence of the marina, which provides for numerous commercial, industrial, and recreation activities.

Redevelopment of Port of Grays Harbor property as port related facilities within the marina will occur. All of the vacant parcels in this reach are within the High Intensity shoreline environment designation.

B. Recreational Development

One parcel within this reach is zoned for Recreation & Parks use. This parcel contains the Westport Viewing Tower. Additionally, there is an ADA-accessible viewing platform at the eastern end of Neddie Rose Drive.

Comment [VZK(18): Isn't there also a viewing platform at the eastern end of Neddie Rose Drive?

Comment [NS19]: AHBL Response: Discussion of viewing platform added.

C. Shoreline Modifications

The shoreline of the Westhaven Reach is heavily armored. Continuing maintenance of the riprap within shoreline jurisdiction should be anticipated to occur over the 20-year planning horizon.

3.06 REACH 5 – BAYFRONT NORTH

Zoning in Bayfront North Reach consists of Marine Industrial (MI), Mixed-Use Tourist Commercial 1 (MUTC-1), Residential 1 (R-1), and Recreation and Parks. The reach is primarily covered by herbaceous wetlands and vegetation. Bayfront North Reach includes the Westport Airport.

3.06.01 PATTERNS OF SHORELINE ACTIVITY

Bayfront North Reach contains 90 parcels area landward of the OHWM, as shown in Table 3-5. Thirty-eight parcels are owned by the city of Westport or the Port of Grays Harbor. A number of the vacant parcels extend into the estuarine wetlands of Grays Harbor.

Table 3-5. Vacant and Developed Parcels in Bayfront North Reach.

Bayfront North Reach	Number of Parcels	Area in Acres
Vacant	68	8
Developed	22	1
Total	90	9

3.06.02 DEVELOPMENT POTENTIAL

A. Residential Development

The Bayfront North Reach contains 21 parcels (<1 acres) zoned Residential 1 (R-1). Of these parcels, 11 are vacant. There is a small amount of residential development potential within this reach.

B. Commercial, Industrial, and Utility Development

Bayfront North Reach contains 66 parcels zoned Mixed-Use Tourist Commercial 1 (MUTC-1) or Marine Industrial (MI), as shown in Table 3-6. The city's approved Airport Layout Plan includes an expansion of the existing airport to include a longer runway and a parallel taxiway located north of the existing runway. If aquaculture were to occur in the city, it would likely occur in this reach.

Comment [VZK(20): Based on what information? It appears there are existing shellfish culture areas within both the Bayfront North and South reaches according to the Grays Harbor County Shoreline Analysis Report (June 2015) –See Figure 4-2, page 29

Comment [NS21]: AHBL Comment: Revision made

Table 3-6. Vacant and Developed Commercial Parcels in the Bayfront North Reach.

Bayfront North Reach	Number of Parcels	Area in Acres
Vacant	68	8
Developed	22	1
Total	90	9

C. Recreational Development

One parcel within this reach is zoned for Recreation & Parks use. In the city's 2004 Comprehensive Park and Recreation Plan, the city recommends that passive recreation opportunities, such as an elevated boardwalk, be pursued at Pacific Avenue Park. The site provides scenic South Bay views and needed public access on the Bay side of the city.

D. Development by Shoreline Environment Designation

Vacant parcels grouped by shoreline environment designation are shown in Table 3-7. While there is significant vacant acreage in the Urban Conservancy shoreline environment designation, development would be severely hindered by the presence of wetlands.

Table 3-7. Development Potential by Shoreline Environment Designation in the Bayfront North Reach.

Shoreline Environment Designation	Number of Vacant Parcels	Area in Acres
Urban Conservancy	30	2
High Intensity	10	1
Shoreline Residential	8	<1
Total	48	4

3.07 REACH 6 – BAYFRONT SOUTH

Zoning in Bayfront South Reach consists of Residential 1 (R-1), Residential 2 (R-2), Recreation and Parks, Mixed-Use Tourist Commercial 1 (MUTC-1), and Mixed-Use Tourist Commercial 2 (MUTC-2). Much of this reach is not zoned, as it is undevelopable wetland. The reach is covered primarily by herbaceous wetlands and vegetation that limit overall development potential.

3.07.01 PATTERNS OF SHORELINE ACTIVITY

Bayfront South Reach contains 111 parcels area landward of the OHWM, as shown in Table 3-8. Of these parcels, 62 are vacant. Two parcels are publicly owned and not likely to develop further.

Table 3-8. Vacant and Developed Parcels in Bayfront South Reach.

Bayfront South Reach	Number of Parcels	Area in Acres
Vacant	62	2
Developed	49	2
Total	111	4

3.07.02 DEVELOPMENT POTENTIAL

A. Residential Development

The Bayfront South Reach contains 31 parcels zoned Residential 1 (R-1) or Residential 2 (R-2), as shown in Table 3-9. There is limited residential development potential within this reach due to the location of the parcels. Many of the vacant parcels appear to be located completely within estuarine wetland areas.

Table 3-9. Vacant and Developed Residential Parcels in the Bayfront South Reach.

Bayfront South Reach	Number of Parcels	Area in Acres
Vacant	16	1
Developed	15	<1
Total	31	2

B. Commercial, Industrial, and Utility Development

Bayfront South Reach contains 78 parcels zoned Mixed-Use Tourist Commercial 1 (MUTC-1) or Mixed-Use Tourist Commercial 2 (MUTC-2). Of these parcels, 46 (2 acres) are vacant. Most of these parcels intersect shoreline jurisdiction and they are partially covered by wetlands. There is limited potential for commercial development within the Bayfront South Reach due to the presence of wetlands. If aquaculture were to occur in the city, it would likely occur in this reach.

C. Recreational Development

Two parcels within this reach are zoned for Recreation & Parks use. One parcel is vacant; however, it is covered by estuarine and marine wetlands and is unlikely to be developed. The other parcel contains baseball fields.

4 STATE, LOCAL, AND FEDERAL REGULATIONS

4.01 OTHER LOCAL PLANS AND REGULATIONS

Local plans and regulations that influence development activity in the shoreline in addition to the SMP are listed below.

4.01.01 COMPREHENSIVE PLAN

The city adopted a Comprehensive Development Plan in 1998. Ordinance No. 1538 amended the Plan in 1999 and Ordinance No. 1189 amended the Plan in 2013 contains Land Use and Zoning elements, which include goals and policies to guide development of residential, commercial, industrial, and recreational lands, as well as goals and policies to protect sensitive environmental resources and shoreline areas. Additionally, the Comprehensive Plan addresses economic, utility, and transportation goals and policies that will guide development in respective sectors.

4.01.02 CITY OF WESTPORT MUNICIPAL CODE

The city provides development guidelines and public works standards that would be applicable to development in the shoreline jurisdiction in WMC Title 15 – Buildings and Construction. The zoning regulations applicable throughout the city are found in WMC Title 17 – Zoning, and were adopted as a means of implementing the goals, objectives, and policies of the Westport Comprehensive Plan, which serves the public health, safety, and general welfare and encourages the most appropriate use of land.

The city regulates development in the interdunal areas adjacent to the Pacific Ocean through WMC 17.32.050(I) – Dune Protection Zone (Ordinance 1189 Att. A § 3, 1999; Ordinance 1146 § 2, 1998). The purpose of the dune protection zone is to regulate development of the ocean dunes between the OHWM and 200 feet landward of the marram grass line.

The city regulates Flood Damage Prevention in WMC 15.12 (Ordinance 844, 1989, and Ordinance 1441, 2008). The city regulates fill and grade activities through SEPA review.

4.01.03 CRITICAL AREAS REGULATIONS

According to the Washington State Department of Commerce, as of February 9, 2015, the city had not completed the required update of its CAO and does not have a CAO that designates or

regulates critical areas. Currently the city uses the SEPA review process to regulate development that may affect critical areas on a project-by-project basis. The city is updating its critical areas regulations concurrently with its SMP update to address critical areas protection in shoreline jurisdiction, as well as throughout the city.

4.01.04 STORMWATER REGULATIONS

The city regulates stormwater drainage in WMC 12.28. The purpose of these regulations is to provide development standards for physical improvements necessary for stormwater management. WMC 13.08 regulates unlawful diversions of stormwater to the sanitary sewer system and requires stormwater be discharged to storm sewers or natural outlets.

4.02 STATE REGULATIONS

Aside from the SMA, Washington state regulations most relevant to development in shorelines include the Aquatic Lands Act, Forest Practices Act (Chapter 76.09 RCW) (FPA), Hydraulic Code, SEPA, and Watershed Planning Act. Those regulations are summarized below.

A number of state agencies, such as Ecology, the Washington State Department of Fish and Wildlife (WDFW), and the Washington State Department of Natural Resources (WDNR) are involved in implementing these regulations. Ecology can review all shoreline projects that require a shoreline permit, but has specific regulatory authority over shoreline conditional use permits and shoreline variances. Other agency reviews of shoreline developments are typically triggered by in-water or over-water work, discharges of fill or pollutants into the water, or substantial land clearing.

Depending on the nature of the proposed development, state regulations can play an important role in the design and implementation of a shoreline project, ensuring that impacts on shoreline functions and values are avoided, minimized, and/or mitigated.

4.02.01 AQUATIC LANDS ACT

In 1984, the Washington State Legislature passed what is commonly referred to as the Aquatic Lands Act (Chapter 79.105 through 79.135 RCW) and delegated to WDNR the responsibility to manage state-owned aquatic lands. The aquatic lands statutes (RCW 79.100 through 79.145) direct WDNR to manage aquatic lands to achieve a balance of public benefits, including public access, navigation and commerce, environmental protection, renewable resource use, and revenue generation when consistent with the other mandates. In addition, it also identifies water-dependent uses as priority uses for the transport of useful commerce.

If a proposed project requires the use of state-owned aquatic lands, the project may be required to obtain an Aquatic Use Authorization from WDNR and enter into a lease agreement. WDNR recommends that all proponents of a project waterward of the OHWM contact WDNR to determine whether the project will be located on state-owned aquatic lands, and, if so, to determine whether the land is available, whether the proposed use is appropriate, and how the project can be constructed to avoid or minimize impacts to aquatic resources.

4.02.02 FOREST PRACTICES ACT

The FPA regulates activities related to growing, harvesting, or processing timber. The FPA is implemented by the Forest Practices Rules, which are administered by the WDNR. The Forest Practices Rules establish standards for forest practices such as timber harvest, pre-commercial thinning, road construction, fertilization, and forest chemical application. The rules are designed to protect public resources such as water quality and fish habitat while maintaining a viable timber industry.

Forest practices are not regulated under the SMA unless the land is being converted to a use besides growing trees, or the commercial harvest is within 200 feet of a shoreline of statewide significance and exceeds the harvest limits established in the SMA. Conversions must comply with the provisions in the SMP for the new use.

4.02.03 HYDRAULIC CODE

Chapter 77.55 RCW, the Hydraulic Code, gives the WDFW the authority to review, condition, and approve or deny any construction activity that will use, divert, obstruct, or change the bed or flow of state waters. These activities include projects such as the installation or modification of piers, shoreline stabilization measures, culverts, and bridges. These types of projects must obtain a Hydraulic Project Approval from WDFW, which will contain conditions intended to prevent damage to fish and other aquatic life, and their habitats. In some cases, the project may be denied if significant impacts would occur that could not be adequately mitigated.

4.02.04 STATE ENVIRONMENTAL POLICY ACT

SEPA provides a way to identify possible environmental impacts that may result from governmental decisions. These decisions may be related to issuing permits for private projects, constructing public facilities, or adopting regulations, policies or plans. Information provided during the SEPA review process helps agency decision-makers, applicants, and the public understand how a proposal will affect the environment. This information can be used to change a proposal to reduce likely impacts, or to condition or deny a proposal when adverse environmental impacts are identified.

4.02.05 WATERSHED PLANNING ACT

The Watershed Planning Act of 1998 (Chapter 90.82 RCW) was passed to encourage local planning of local water resources. The Act recognizes that citizens and entities in each watershed have the greatest knowledge of both the resources and the aspirations of those who live and work in the watershed, and have the greatest stake in the proper, long-term management of the resources.

4.02.06 OCEAN RESOURCES MANAGEMENT ACT

The Ocean Resources Management Act (ORMA) (RCW 43.143) establishes policies and planning criteria for ocean resources and bans leasing of Washington's outer coast waters for oil and gas exploration, development, and production. Local jurisdiction SMPs must be consistent with the Ocean Management Guidelines in WAC 173-26-360. Development and activities proposed in coastal shorelines must be reviewed for ORMA compliance and meet certain criteria to avoid and minimize adverse impacts, in a manner similar to that for development proposals in critical areas.

4.03 FEDERAL REGULATIONS

Federal regulations most pertinent to development in the shorelines within the city include the Clean Water Act, the Endangered Species Act (ESA), the Rivers and Harbors Act, and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Those regulations are summarized below. Other relevant federal regulations include the National Environmental Policy Act, Anadromous Fish Conservation Act, Clean Air Act, and Migratory Bird Treaty Act.

A variety of agencies, such as the USACE, National Marine Fisheries Service (NMFS), and US Fish and Wildlife Service (USFWS), are involved in implementing these regulations, with review of shoreline development typically triggered by in-water or over-water work, or discharges of fill or pollutants into the water. Depending on the nature of the proposed development, federal regulations can play an important role in the design and implementation of a shoreline project, ensuring that impacts to shoreline functions and values are avoided, minimized, and/or mitigated.

4.03.01 CLEAN WATER ACT

Two sections of the federal Clean Water Act are particularly relevant to regulating activity in shoreline areas: Section 402 and Section 404.

Section 402 requires the United States Environmental Protection Agency (EPA) to develop and implement the National Pollutant Discharge Elimination System (NPDES) program. The NPDES program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches. Municipal, industrial, and other facilities must obtain permits if their discharges go directly to surface waters. In Washington State, the EPA delegated the responsibility for managing implementation of this program to Ecology.

Section 404 of the Clean Water Act provides the USACE, under oversight by the EPA, with the authority to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Under Section 404, the extent of USACE jurisdiction extends to mean high water line. USACE must review and approve many activities in the shoreline, including, but not limited to, depositing fill, dredged, or excavated material in waters and/or adjacent wetlands; shoreline and wetland restoration projects; and culvert installation or replacement.

4.03.02 ENDANGERED SPECIES ACT

Section 9 of the ESA prohibits the “take” of listed species. “Take” has been defined in Section 3 of the ESA as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The take prohibitions of the ESA apply to everyone, so any action of the city that results in a take of listed fish or wildlife would be a violation of the ESA and expose the city to risk of lawsuit. Per Section 7 of the ESA, USACE must consult with NMFS and the USFWS on any projects that fall within USACE jurisdiction (e.g., Clean Water Act Section 404 or Rivers and Harbors Act Section 10 permits) that could affect species listed under ESA. These agencies ensure that the project includes impact minimization and compensation measures for protection of listed species and their habitats.

4.03.03 RIVERS AND HARBORS ACT

Section 10 of the Rivers and Harbors Act of 1899 provides USACE with the authority to regulate activities that may affect navigable waters of the United States. These waters are subject to the ebb and flow of the tide and/or are currently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Under Section 10, the extent of USACE jurisdiction in navigable waterways extends to the mean high water line. Proposals to construct new or modify existing in-water structures (including, but not limited to, piers, marinas, bulkheads, and breakwaters), to excavate or dredge, or to alter or modify the course, location, condition, or capacity of navigable waters must be reviewed and approved by USACE.

4.03.04 COASTAL ZONE MANAGEMENT ACT

The Coastal Zone Management Act (CZMA) of 1972 provides management of the nation's coastal resources. The CZMA is administered by the National Oceanic and Atmospheric Administration (NOAA), and the goal of the Act is to "preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone." The CZMA has three programs including the Coastal Zone Management Program. Through this program, the federal government and coastal states enter into voluntary partnerships to address coastal issues and create state and territorial coastal management programs.

4.03.05 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT

CERCLA, commonly known as Superfund, established requirements for closed and abandoned hazardous waste sites, established liability for releases of hazardous waste at such sites, and established a fund to provide for cleanup when no responsible party could be identified. The law authorizes two kinds of response actions:

- Short-term removals, for which actions may be taken to address releases or threatened releases requiring prompt response.
- Long-term remedial response actions, which permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious but not immediately life threatening. Such actions can be conducted only at sites listed on EPA's National Priorities List.

5 NET EFFECT ON ECOLOGICAL FUNCTIONS

As described in the previous chapters, the proposed SMP provides a substantially increased level of protection to shoreline ecological functions. Implementation of the proposed SMP is expected to protect shorelines within the city, resulting in no net loss of shoreline ecological function. In addition, the application of the SMP may improve ecological functions over time through restoration efforts in targeted areas, such as in the Urban Conservancy environment designation.

State and federal regulations, acting in concert with this SMP, will provide further assurances of improved shoreline ecological functions over time. Together with the implementation of the Shoreline Restoration Plan, the SMP is expected to begin to address the enhancement and restoration of shoreline functions in those areas where they are currently impaired.

5.01 EFFECTS OF SMP PROVISIONS

It is an overall goal of the SMP and SMP update process to ensure no net loss and long-term enhancement of unique shoreline features, natural resources, and fish and wildlife habitat. A specific objective of the SMP is to provide for no net loss of shoreline ecological function. The SIC identified four ecologic function categories, which include hydrologic, vegetation, hyporheic, and habitat functions.

Table 7-5 and Table 7-6 provide a summary of potential cumulative impacts to shoreline ecological function categories associated with reasonably foreseeable future development, and the elements included in the SMP, which act as countermeasures toward ensuring no net loss of ecological function. Table 7-7 provides a summary of the SMP provisions, goals, policies, and regulations that support no net loss of ecological functions in the city's shoreline jurisdiction. It also summarizes the effects of cumulative impacts on shoreline functions.

Comment [VZK(22): It seems this isn't necessarily an accurate statement in every jurisdiction. I recommend you delete because it doesn't add relevant information in the Westport context, unless there is an expectation for high levels of development.

Comment [NS23]: AHBL Response: Agree with the change.

5.02 NET EFFECT

As described above, the proposed SMP provides a substantial level of protection for shoreline ecological functions through strategies such as **shoreline buffers, shoreline structural setbacks,**

Comment [VZK(24): These got only a passing mention that they exist in Chapter 3 (p.19). I recommend the discussion be expanded to provide better understanding around these protection mechanisms.

Comment [NS25]: AHBL Response: Discussion of the protection that buffers and setbacks provide to shorelines is added.

and mitigation requirements where impacts are not otherwise avoided, resulting in no net loss of ecological function.

Through the use of shoreline buffers, shorelines will be more protected as these areas will be maintained in an undisturbed state. Retaining native vegetation, trees, and shrubs will ensure water quality, habitat enhancement, and stabilization of slopes.

Similarly, the implementation of structural setbacks will result in preventing the future need for activities such as shoreline armoring that may harm the environment. Additionally, setting back a home from a shoreline may prevent the future need to armor a slope in the event that the bluff naturally erodes in the future, and as sea levels rise.

Additional protection and potential for enhancement of ecological functions is provided through consistency with other federal, state, and local laws and policies. Together, with implementation of the Shoreline Restoration Plan, the proposed SMP has high potential for improving ecological functions in areas of shoreline jurisdiction where they are currently impaired. Therefore, the cumulative impacts of development in shoreline jurisdiction are expected to result in no net loss of shoreline ecological functions.

5.03 UNANTICIPATED CUMULATIVE IMPACTS

In accordance with (WAC 173-26-201(3)(d)(iii)), the SMP has been developed to avoid or mitigate unanticipated or uncommon impacts that cannot be reasonably identified at this time. Impact avoidance and mitigation will occur during the city's permit review process for future development in shoreline jurisdiction. Conditional use permits will be required for development proposals or shoreline uses that are not classified or set forth in the SMP.

Mitigation sequencing will be applied all development activities during permit review under SMP Section 4.03: Environmental Impacts and Mitigation to avoid new incremental impacts to shoreline ecological functions. To ensure mitigation sequencing is applied, the city's critical areas regulations, which regulates wetlands, streams, fish and wildlife habitat areas, and other critical areas, was modified to reflect the requirements of the SMA and included as SMP Appendix 2: Critical Areas Regulations.

Additionally, minimum criteria for review and approval of conditional use permits have been incorporated into the SMP administration provisions pursuant to WAC 173-27-210 and WAC 173-27-160. The criteria include the provision that

“...the proposed use will cause no unreasonably adverse effects to the cities shoreline jurisdiction, will not result in a net loss of ecological functions, and will not be

incompatible with the environment designation or zoning classification in which it is to be located.”

Additionally, it includes the criteria that

“...consideration of cumulative impacts resultant from the proposed use has occurred and has demonstrated that no substantial cumulative impacts are anticipated, consistent with WAC 173-27-160(2).”

5.04 CONCLUSION

The reasonably foreseeable future development and associated impacts on shoreline ecological functions were reviewed and assessed for this CIA in conjunction with the city's SMP provisions, goals, policies, and regulations, the Shoreline Restoration Plan and other existing laws, policies, and regulations beyond the SMP. Together, they provide the basis for evaluating the net effect of both anticipated and unanticipated cumulative impacts of development on shoreline functions. Based on this CIA, the proposed SMP includes policies and regulations that will achieve no net loss of ecological functions as the SMP is implemented over time.

6 CONCLUSIONS REGARDING NO NET LOSS

The SMP update process has provided the opportunity to identify baseline environmental conditions, anticipate future impacts to shoreline resources, and provide restoration opportunities within the city's shoreline jurisdiction. Changes to the SMP were informed by the best technical information gathered during the update process. The proposed SMP provides a new system of shoreline environment designations that establishes more uniform management of the city's shorelines.

The system of shoreline environment designations and use regulations in the proposed SMP is consistent with current conditions established in the SIC, the existing land use pattern, as well as the land use vision planned for in the city's comprehensive plan, zoning, and other long-range planning documents. Based on this consistency, it is unlikely that substantial changes in the type of shoreline land uses will occur in the future. Furthermore, the use of an aquatic designation will provide a means for protecting and managing the resources that are unique to the aquatic environments.

The updated development standards and regulation of shoreline modifications provides more protection for shoreline processes. The updated standards and regulations are more restrictive of activities that would result in adverse impacts to the shoreline environment. In addition, the *Restoration Plan* developed as part of the SMP Update provides the city with descriptions of opportunities to improve or restore ecological functions that have been impaired because of past development activities. Furthermore, the proposed SMP is meant to complement city, state, and federal efforts to protect shoreline functions and values.

The city is required to monitor development under the proposed SMP to ensure no net loss. The city staff will track all land use and development activity, including exemptions, within shoreline jurisdiction, and incorporate actions and programs of individual departments as well. It is suggested that city staff assemble a report to coincide with the eight-year periodic review of the SMP required by RCW 90.58.080. Following the goals and objectives of the proposed SMP, the report could be used to determine whether implementation of the SMP is meeting the basic goal of no net loss of ecological functions relative to the baseline condition established in the SIC.

Based on assessment of these factors, the cumulative actions taken over time in accordance with the provisions outlined in the proposed SMP are not likely to result in a net loss of overall ecological functions from the existing baseline conditions within the city's shoreline jurisdiction.

An overall improvement in ecologic functions is expected in the city's shoreline due to restoration efforts proposed along the shoreline with redevelopment and shoreline enhancement.

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7 CUMULATIVE IMPACT ANALYSIS TABLES

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Table 7-1. Cumulative Impacts to the Shoreline Environment – Nutrient/Pollutant Delivery and Removal

Function: Water Quality

Resources at Risk: Waterways and their floodplains, riparian corridors and potential, undelineated wetlands

Shoreline Alterations Impacting Processes and Functions	Proposed Restoration/Protection Measures and Draft SMP Policies and Regulations	Non-Regulatory Measures
<p><u>Current Condition:</u> Existing impervious surfaces increase delivery of nutrients to waterways.</p> <p>Ditching, draining, and filling of wetlands and clearing of riparian has occurred previously within the city.</p> <p><u>Degree of future cumulative impact:</u> New development may result in additional impervious surfaces and may result in further impacts to existing aquatic resources at risk including associated wetlands.</p> <p>Potential development of residential lots adjacent to the shoreline is small, so future impacts should be low.</p> <p>Nutrient/pollutant processes and water quality functions within the city's shorelines may be impacted by existing roadways, septic systems, and potential expansions.</p>	<p><u>Proposed Overall Measures:</u> Protect existing waterway resources and associated wetlands (SMP Section 4.03: Environmental Impacts, SMP Section 4.04: Critical Areas and Shoreline Vegetation Conservation, SMP Section 4.04.02 (B), (C) & (D) Buffer Regulations and SMP Appendix 2: Critical Areas Regulations), and restore riparian areas (SMP Section 4.04.02(E),(F) & (G) Vegetation Conservation Regulations).</p> <p>SMP Section 4.03: Environmental Impacts and Mitigation and SMP Appendix 2: Critical Areas Regulations regulate critical areas such as critical aquifer recharge areas within shoreline jurisdiction.</p> <p>All shoreline uses and activities shall utilize BMPs to minimize any increase in surface runoff and to control, treat and release surface water runoff so that receiving water quality is not adversely affected during both construction and operation (SMP Chapter 6: Shoreline Modification Policies & Regulations).</p> <p>The SMP specifically addresses water quality in SMP Section 4.10: Water Quality.</p> <p>The city's Comprehensive Plan addresses cooperation with the</p>	<p>Restore degraded wetlands.</p> <p>Restore degraded riparian areas through replanting with native species.</p> <p>The <i>Shoreline Restoration Plan</i> outlines the non-regulatory measures that will be available to the city to help address these issues.</p>

Shoreline Alterations Impacting Processes and Functions	Proposed Restoration/ Protection Measures and Draft SMP Policies and Regulations	Non-Regulatory Measures
	Grays Harbor County Health District to ensure pollutants from septic systems do not enter groundwater.	

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Table 7-2. Cumulative Impacts to the Shoreline Environment – Surface and Groundwater Flow

Function: Reducing flooding and erosion (surface storage), aquifer recharge and storage

Resources at Risk: Waterways and their floodplains, riparian corridors and potential, undelineated wetlands

Shoreline Alterations Impacting Processes and Functions	Proposed Restoration/Protection Measures and Draft SMP Policies and Regulations	Non-Regulatory Measures
<p><u>Current Condition:</u> Impervious areas and clearing decrease infiltration recharge, subsurface storage, and groundwater discharge to water bodies and wetlands.</p> <p>Wetland fill, development in floodplain (including shoreline protective structures) reduces surface storage, overbank flooding and increased flooding frequency and duration.</p> <p><u>Degree of future cumulative impact:</u> New development will remove vegetated areas and increase impervious cover. Additional impacts to surface storage functions may occur from shoreline fill and encroachment.</p> <p>Potential development of residential lots adjacent to the shoreline is small, so future impacts should be low.</p> <p>Residential development is allowed in the High Intensity, Shoreline Residential, and Urban Conservancy shoreline designation areas adjacent to the waterways.</p>	<p><u>Proposed Overall Measures:</u> Minimize impacts to surface and groundwater processes by employing nonstructural approach to reducing flooding and erosion. This would include protecting and restoring wetlands. Reference found in SMP Section 4.03: Environmental Impacts and Mitigation, SMP Section 4.06: Flood Hazard Management, SMP Section 5.04.02(B), (C), & (D): Shoreline Buffer Regulations, and SMP Chapter 6: Shoreline Modification Policies & Regulations.</p> <p>SMP Section 4.04: Critical Areas and Shoreline Vegetation Conservation, SMP Section 4.06: Flood Hazard Management, and SMP Appendix 2: Critical Areas Regulations regulate frequently flooded areas.</p> <p>SMP Chapter 3: Shoreline Environment Designations and SMP Section 5.03: Allowed Shoreline Uses regulate the type of development that is permitted by shoreline environment designation.</p> <p>The SMP specifically addresses flood hazard reduction in SMP Section 4.06: Flood Hazard Management.</p>	<p>Restore degraded wetlands.</p> <p>Restore degraded floodplain and riparian areas through replanting with native species.</p> <p>The <i>Shoreline Restoration Plan</i> outlines the non-regulatory measures that will be available to the city to help address these issues.</p>

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Table 7-3. Cumulative Impacts to the Shoreline Environment – Sediment Transport

Function: Sediment delivery and removal from area water systems

Resources at Risk: Waterways and their floodplains, riparian corridors and potential, undelineated wetlands

Shoreline Alterations Impacting Processes and Functions	Proposed Restoration/Protection Measures and Draft SMP Policies and Regulations	Non-Regulatory Measures
<p>Current Condition: Sediment delivery and removal processes have been affected by both natural and man-made factors. Man-made factors are primarily from the construction and maintenance of dams.</p> <p>Future Cumulative Impact: Potential for further sediment delivery into water systems without protective vegetation due to land clearing and development on uplands throughout the city.</p> <p>Development may affect storage of surface waters in wetlands in this basin, which in turn could affect flooding, and erosion functions within shoreline areas along waterways.</p> <p>Future armoring may also disrupt nearshore sediment transport processes.</p>	<p>Proposed Overall Measures: Minimize the delivery of sediment from land alterations through retention of natural vegetation, protection of riparian corridors, application of a comprehensive erosion and sedimentation control program and measures and proper siting of development. References found in SMP Section 4.04.02(E), (F), & (G): Vegetation Regulations, SMP Section 5.04.02(B), (C) & (D): Shoreline Buffer Regulations, and SMP Section 6.03: Clearing, Grading, and Fill.</p> <p>SMP Section 4.04: Critical Areas and Vegetation Conservation and SMP Appendix 2: Critical Areas Regulations regulates geologically hazardous areas in shoreline jurisdiction.</p> <p>The SMP specifically addresses water quality in SMP Section 4.10: Water Quality.</p> <p>In SMP Section 6.03: Clearing, Grading, and Fill, land clearing, grading, and filling must be limited to the minimum necessary for development.</p> <p>SMP Section 6.06: Shoreline Stabilization prefers nonstructural to structural measures to stabilize banks.</p>	<p>Create incentive programs to conserve and retain native vegetation and restore native vegetation where none is present.</p> <p>Programs such as on-site density transfers and conservation easements could help protect these areas.</p> <p>The <i>Shoreline Restoration Plan</i> outlines the non-regulatory measures that will be available to the city to help address these issues.</p>

Table 7-4. Cumulative Impacts to the Shoreline Environment – Habitat Biodiversity**Function:** Fish and wildlife habitat, food production and delivery**Resources at Risk:** Waterways and their floodplains, riparian corridors and potential, undelineated wetlands

Shoreline Alterations Impacting Processes and Functions	Proposed Restoration/Protection Measures and Draft SMP Policies and Regulations	Non-Regulatory Measures
<p><u>Current Condition:</u> Important aquatic and riparian habitat is present in waterways throughout the Coalition.</p> <p>Habitat functions are altered with development, shoreline armoring, loss of riparian cover, and shoreline modification.</p> <p>Alteration of scrubland habitat, loss of wetlands, reduce the overall habitat for wildlife species, including mammals, amphibians, reptiles, waterfowl, birds and other wildlife species.</p> <p>Habitat connectivity is diminished as riparian cover is removed and bulkheads, riprap, filling, and dredging interrupt aquatic systems.</p> <p>Loss of habitat features such as banks with scrubland vegetation decreases</p>	<p><u>Proposed Overall Measures:</u> Protect and restore riparian habitat, aquatic habitat, and wetlands (SMP Section 4.04: Critical Areas and Shoreline Vegetation Conservation and SMP Appendix 2: Critical Areas Regulations).</p> <p>SMP Section 4.04: Critical Areas and Shoreline Vegetation Conservation and SMP Appendix 2: Critical Areas Regulations regulate critical fish and wildlife conservation areas within shoreline jurisdiction.</p> <p>The SMP specifically addresses water quality in SMP Section 4.10: Water Quality.</p> <p>The SMP specifically addresses protection and restoration of native vegetation within shoreline jurisdiction. In SMP Section 4..04.02(E), (F) & (G): Vegetation Conservation Regulations, SMP Section 5.04.02 (B), (C) & (D): Shoreline Buffer Regulations, and SMP Section 6.04: Clearing, Grading, and Fill, the purpose is to conserve vegetation in shoreline jurisdiction, restrict clearing and grading to the minimum amount necessary, and control invasive weeds and non-native species.</p>	<p>Restore degraded wetlands and the aquatic system.</p> <p>This includes restoring degraded riparian and aquatic habitat by planting with native species where possible and the addition of habitat features.</p> <p>The <i>Shoreline Restoration Plan</i> will outline the non-regulatory measures that will be available to the city to help address these issues.</p>

Shoreline Alterations Impacting Processes and Functions	Proposed Restoration/Protection Measures and Draft SMP Policies and Regulations	Non-Regulatory Measures
<p>wildlife cover, denning, perching, and nesting habitat.</p> <p><u>Future cumulative impacts:</u> Future impacts should be low if provisions of the SMP are followed.</p> <p>Any future development may affect habitat and water quality functions within the city's shoreline.</p>	<p>SMP Section 4.04.02(E), (F) and (G): Vegetation Conservation Regulations calls for the city to protect and restore diversity of vegetation and habitat associated with shoreline areas.</p> <p>SMP Section 4.04: Critical Areas and Shoreline Vegetation Conservation and SMP Appendix 2: Critical Areas Regulations regulate critical fish and wildlife conservation areas within shoreline jurisdiction. These sections require shoreline development to be located, designed, constructed, and managed to avoid disturbance of and minimize adverse impacts to wildlife resources, including spawning, nesting, rearing and habitat areas and migratory routes.</p>	

Table 7-5. Shoreline Function Impacts Associated with Residential or Commercial Development and SMP Counter Measures

Function Category	Potential Cumulative Impacts to Shoreline Functions	SMP Countermeasures
Hydrologic	<ul style="list-style-type: none"> • Altered flows and water quality associated with increased impervious surface. 	<ul style="list-style-type: none"> • In SMP Chapter 3: Shoreline Environment Designations, environment designations concentrate development in least sensitive areas. • SMP Section 5-12: Parking limits type and location of parking facilities. • SMP Section 4.10: Water Quality requires development to follow the applicable local jurisdiction stormwater management programs and regulations.
Vegetation	<ul style="list-style-type: none"> • Reduced water quality from increase in pesticide and fertilizer. • Increased risk of bank instability, increased erosion, and increased turbidity associated with vegetation clearing. 	<ul style="list-style-type: none"> • SMP Section 4.04.02(B), (C) & (D): Shoreline Buffer Regulations requires increased buffers if necessary to protect functions and provides for minimum building setbacks. • SMP Section 4.10: Water Quality requires BMPs and compliance with the city's stormwater management program for clearing and grading. • SMP Section 4.03: Environmental Impacts and Mitigation establishes mitigation standards for vegetation clearing. • SMP Section 4.04.02(E), (F) and (G): Vegetation Conservation Regulations regulates clearing of vegetation clearing.

Function Category	Potential Cumulative Impacts to Shoreline Functions	SMP Countermeasures
Hyporheic	<ul style="list-style-type: none"> Increased need for bank stabilization or protection structures could result in direct disturbance and alteration of the hyporheic zone, reducing the potential for water or sediments storage, and removal of nutrients or toxins, altered water temperatures, or other water quality conditions. 	<ul style="list-style-type: none"> SMP Section 4.04.02(B), (C) & (D): Shoreline Buffer Regulations requires shoreline buffers and structural setbacks. SMP Section 6.06: Shoreline Stabilization limits shoreline stabilization and encourages non-structural treatments.
Habitat	<ul style="list-style-type: none"> Reduced habitat area or suitability for specific species. Reduced habitat complexity and habitat connectivity. 	<ul style="list-style-type: none"> SMP Section 5.03: Allowed Shoreline Uses limits non-water oriented uses. SMP Section 4.09: Restoration provides standards for restoration activities and consistency with the <i>Shoreline Restoration Plan</i>.

Table 7-6. Shoreline Function Impacts Associated with In-water and Overwater Structures or Shoreline Modifications and SMP Counter Measures

Function Category	Potential Cumulative Impacts to Shoreline Functions	SMP Countermeasures
Hydrologic	<ul style="list-style-type: none"> Altered hydraulics that affects habitat conditions or reduce potential for habitat formation. Altered movement of sediments. 	<ul style="list-style-type: none"> SMP Chapter 6: Shoreline Modification Policies & Regulations establish limitations and standards for shoreline modifications including dredging, fill, and shoreline stabilization.
Vegetation	<ul style="list-style-type: none"> Reduced riparian vegetation resulting in increased erosion, bank instability, and altered habitat. 	<ul style="list-style-type: none"> SMP Section 4.04.02(E), (F) & (G): Vegetation Conservation Regulations includes provisions for vegetation conservation. SMP Section 4.10: Water Quality requires BMPs and compliance with city's stormwater management program for clearing and grading.
Hyporheic	<ul style="list-style-type: none"> Water quality impacts resulting from structures interfering with hyporheic flows. 	<ul style="list-style-type: none"> SMP Section 6.08: Shoreline Stabilization limits shoreline stabilization and encourages non-structural treatments.
Habitat	<ul style="list-style-type: none"> Altered substrate composition due to hydrologic and wave energy impacts. Reduced habitat complexity and connectivity between terrestrial and aquatic environments. Increased shading or substrate alteration affecting plant growth, benthic community, and behavior of aquatic organisms. Altered ecological interactions. 	<ul style="list-style-type: none"> SMP Section 5.07: Boating and Water Access Facilities provides provisions for boating facility design, including location, size, number, and operation standards. SMP Section 5.06: Aquaculture places limitations on aquaculture facilities. SMP Section 4.03: Environmental Impacts and Mitigation, SMP Section 4.04: Critical Areas and Shoreline Vegetation Conservation, and SMP Section 4.04.02(E), (F), and (G): Vegetation Conservation regulations include provisions for habitat enhancement, vegetation conservation,

Function Category	Potential Cumulative Impacts to Shoreline Functions	SMP Countermeasures
		and mitigation standards.

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Table 7-7. Summary of Shoreline Master Program and Effects of Cumulative Impacts on Shoreline Functions

SMP Chapter containing goals, policies, or regulations, to protect ecological functions	Purpose of SMP Provision, Goals, Policy or Regulation	Summary of Cumulative Impacts Effects on Key Shoreline Functions
SMP Chapter 2: <i>Shoreline Management Goals</i>	<ul style="list-style-type: none"> Establishes a framework upon which the more detailed SMP shoreline use environments, policies, regulations, and administrative procedures are based. Specifically, includes a conservation element to preserve natural resources and provide for no net loss of ecological function. 	<ul style="list-style-type: none"> Serves to protect all functions potentially affected by the SMP, future development, and shoreline restoration or enhancement activities.
SMP Chapter 3: <i>Shoreline Environment Designations</i>	<ul style="list-style-type: none"> Defines and maps shoreline jurisdiction and environment designations of all the shorelines in the city. Policies and regulations specific to the four shoreline environment designations (High Intensity, Shoreline Residential, Urban Conservancy, and Aquatic) are detailed in this chapter. The shoreline environments are the key to providing specific management policies and regulations to ensure no net loss in both developed and undeveloped areas with high functions. 	<ul style="list-style-type: none"> Protects all functions, with focus on preserving and enhancing existing shoreline ecological functions.
SMP Chapter 4: <i>General Policies & Regulations</i>	<ul style="list-style-type: none"> Sets forth the policies and regulations that apply to uses, developments, and activities in all shoreline areas of the city. Specifically, it contains the requirement that all development and uses meet no net loss, and include measures to mitigate environmental impacts. Provides specific standards for critical areas, environmental impacts, flood hazard reduction, restoration, shoreline modifications, vegetation conservation, and water quality to achieve no net loss. Requires periodic review of shoreline conditions to determine 	<ul style="list-style-type: none"> Protects all functions with focus on critical areas, riparian vegetation, and water quality and quantity. Provides standards for environmental impacts review and mitigation

SMP Chapter containing goals, policies, or regulations, to protect ecological functions	Purpose of SMP Provision, Goals, Policy or Regulation	Summary of Cumulative Impacts Effects on Key Shoreline Functions
	whether other actions are necessary to ensure no net loss.	
<i>SMP Chapter 5: Specific Shoreline Use Policies & Regulations</i>	<ul style="list-style-type: none"> • Sets forth policies and regulations governing specific categories of uses and activities typically found in shoreline areas. • For example, establishes minimum shoreline buffers and/or setbacks, and limits in-water structures. 	<ul style="list-style-type: none"> • Protects all functions, with specific focus on the unique aspects of uses that require specific and unique requirements to assure no net loss.
<i>SMP Chapter 6: Shoreline Modification Policies & Regulations</i>	<ul style="list-style-type: none"> • Sets forth policies and regulations that apply to shoreline modifications. • Specifically regulates in-water structures and clearing and grading. 	<ul style="list-style-type: none"> • Protects all functions with focus on in-water uses and modifications.
<i>SMP Appendix 2: Critical Areas Regulations</i>	<ul style="list-style-type: none"> • Sets forth policies and regulations that apply to critical areas within shoreline jurisdiction. • Critical areas regulations will apply to shoreline jurisdiction associated with the city's marine areas. 	<ul style="list-style-type: none"> • Protects critical areas within shoreline jurisdiction to assure no net loss.

8 REFERENCES

- AHBL. 2016. *Shoreline Master Program*, update. May 9, 2016.
- Ecology. 2010. SMP Handbook. Washington State Department of Ecology.
- Herrera Environmental Consultants. 2015. *Shoreline Restoration Plan for the Cities of Ocean Shores and Westport*. Prepared for the City of Westport by Herrera Environmental Consultants, Inc. November 6, 2015.
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