

**CITY OF POULSBO
SHORELINE MASTER PROGRAM UPDATE**

**CUMULATIVE IMPACTS ANALYSIS
AND NO NET LOSS SUMMARY**

PREPARED FOR:

CITY OF POULSBO
PLANNING AND BUILDING DEPARTMENT
19050 JENSEN WAY NE
POST OFFICE BOX 98
POULSBO, WASHINGTON 98370-0098

PREPARED BY:

GRETT ASSOCIATES, LLC
2102 NORTH 30TH SUITE A
TACOMA, WASHINGTON 98403
(253) 573-9300

151 SOUTH WORTHEN, SUITE 101
WENATCHEE, WASHINGTON 98801
(509) 663-6300

REVISED TO INCLUDE NO NET LOSS SUMMARY REPORT– JUNE 2011



TABLE OF CONTENTS

INTRODUCTION3
 1.1 Shoreline Management Act Requirements3
 1.2 Methodology3
 1.3 Report Organization4
 2 MARINE REACH 15
 2.1 Existing Shoreline Use and Functions5
 2.2 Reasonably Foreseeable Future Development5
 2.3 Potential Impact to Function Resulting from Foreseeable Development8
 2.4 SMP Policies and Regulations Created To Address Potential Impacts8
 3 MARINE REACH 210
 3.1 Existing Shoreline Use and Functions10
 3.2 Reasonably Foreseeable Future Development10
 3.3 Potential Impact to Function Resulting from Foreseeable Development11
 3.4 SMP Policies and Regulations Created To Address Potential Impacts11
 4 MARINE REACH 313
 4.1 Existing Shoreline Use and Functions13
 4.2 Reasonably Foreseeable Future Development13
 4.3 Potential Impact to Function Resulting from Foreseeable Development15
 4.4 SMP Policies and Regulations Created To Address Anticipated Impacts15
 5 MARINE REACH 417
 5.1 Existing Shoreline Use and Functions17
 5.2 Reasonably Foreseeable Future Development17
 5.3 Potential Impact to Function Resulting from Foreseeable Development20
 5.4 SMP Policies and Regulations Created To Address Anticipated Impacts20
 6 MARINE REACH 522
 6.1 Existing Shoreline Use and Functions22
 6.2 Reasonably Foreseeable Future Development22
 6.3 Potential Impact to Function Resulting from Foreseeable Development24
 6.4 SMP Policies and Regulations Created To Address Anticipated Impacts24
 7 GENERAL SHORELINE MANAGEMENT POLICIES AND REGULATIONS26
 7.1 Shoreline Master Program Policies26
 7.1.1 Shoreline Environmental Designations26
 7.1.2 Shoreline Habitat and Critical Areas26
 7.1.3 Water Quality27
 7.2 Shoreline Master Program Regulations27
 7.2.1 General Provisions28
 7.2.2 Regulations applying to all shoreline development and activities28
 7.2.3 Shoreline Activities Development and Uses28
 7.2.4 Design Requirements28

7.2.5 Shoreline Modifications.....	28
8 INCREMENTAL AND UNANTICIPATED IMPACTS.....	29
9 SUMMARY TABLE.....	30
10 SUMMARY OF NET IMPACT TO ECOLOGICAL FUNCTION.....	36
11 NO NET LOSS SUMMARY REPORT (ADDENDUM).....	37
11.1 Introduction.....	37
11.2 Shoreline Master Program Update Process.....	37
11.3 Synopsis of How No Net Loss is Achieved through the SMP update process.....	38
11.4 Results of the Supporting Documents generated during the City of Poulsbo SMP Update Process.....	39
11.4.1 Inventory and Characterization.....	39
11.4.2 Cumulative Impacts Analysis.....	40
11.4.3 Restoration plan.....	40
11.5 Supporting Documents and SMP update.....	40
11.5.1 Environmental Designations.....	40
11.5.2 Goals and Policies.....	42
11.5.3 Regulations.....	42
11.6 No Net Loss Conclusion.....	43
12 REFERENCES.....	44

EXHIBITS

Official Shoreline Map
Potential Future Development Map

INTRODUCTION

1.1 SHORELINE MANAGEMENT ACT REQUIREMENTS

The purpose of the cumulative impact analysis, as described by WAC 173-26-186(8)(d), is to

“[E]valuate and consider cumulative impacts of reasonably foreseeable future development on shoreline ecological functions fostered by the policy goals of the act. 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 the address adverse cumulative impacts among development opportunities”.

The guidelines also specify that a complete evaluation of cumulative impacts document should identify the following¹:

- existing shoreline conditions affecting the shorelines and relevant natural process,
- reasonably foreseeable future development and use of the shoreline, and
- the beneficial effect of any established regulatory programs under other local state and federal laws.

1.2 METHODOLOGY

This document was generated to address the Cumulative Impact Analysis requirements of the Shoreline Master Program Guidelines, as defined by WAC 173-26 and identified in Section 1.1. The foundation of this document is provided by other SMP update analyses including the Shoreline Inventory and Characterization, the Draft SMP including environmental designations, policies and regulations, and the Shoreline Restoration Plan. In addition to these reference documents, this analysis also contains an assessment of shoreline use to identify reasonably foreseeable future development. The areas identified for reasonably foreseeable future development are primarily focused on new development.

Analysis of redevelopment potential is only provided in areas where no new development can reasonably occur, such as within Marine Reach 2 which coincides with the downtown core of Poulsbo. The generalized understanding throughout the document is that the level of impact associated with foreseeable development will be dependent upon the extent of new development versus redevelopment. During redevelopment, there may be small changes (increase or decrease) in characteristics such as armoring type and elevation or area impervious surface. These changes would affect function at similarly small scales. New development, which could include new armoring or structures in upland or aquatic areas, would likely result in relatively greater impacts to function.

¹ The items contained within this bulleted list are summarized from WAC 173-26-186(8)(d)(i-iii).

This approach is designed to address the requirement outlined in WAC 173-26-186(8)(d) and Ecology's draft SMP Handbook Chapters 17 *Cumulative Impacts Analysis* and Chapter 4 *No Net Loss of Shoreline Ecological Functions* (Ecology 2010).

The cumulative impacts analysis provides quantitative data describing existing conditions and ecological function as available (e.g., percent of shoreline armoring), but the overall the analysis is largely qualitative. The analysis is presented in both narrative and matrix form in order to provide the reader with detailed information by reach (narrative) and to easily summarize and compare information across City shorelines (summary matrix).

1.3 REPORT ORGANIZATION

This report is organized in a reach-based framework that builds upon analyses in the Inventory and Characterization document.

Section 1 provides background information on the Shoreline Management Act requirements, the methodology utilized to generate the document, and general information on report organization.

Sections 2 through 6 provide a qualitative, narrative-based review of potential cumulative impacts organized by reach and discusses how the anticipated impacts will be addressed by regulations specific to the environmental designation where the development will occur.

Section 7 is designed to supplement the analysis completed in sections 2 through 7 by providing information on general cumulative impact analysis items such as SMP policies and regulations that are assigned to all of the reaches within the City.

Section 8 provides information on how the City of Poulsbo is addressing incremental and unanticipated impacts associated with shoreline development.

Section 9 provides a summary table of the narrative information contained in Sections 2 through 6.

Section 10 provides information on the net impact of the proposed SMP on ecological function as well as a jurisdictional determination regarding no net loss.

Section 11 identifies all references utilized in the generation of this document.

Associated exhibits are located in an appendix at the end of the document.

2 MARINE REACH 1

Marine Reach 1 (MR1) corresponds to the City of Poulsbo's Fjord Drive planning segment. MR1 is located on the eastern side of Liberty Bay and extends from the south end of the Marine Science Center property to the end of the Poulsbo city/ UGA boundary.

2.1 EXISTING SHORELINE USE AND FUNCTIONS²

MR1 is characterized by single-family residential development, public parks as well as two private marinas and a portion of the Port of Poulsbo marina facilities.

Shoreline armoring is located along 56 % of this reach. Hydrologic function, including water movement between the upland and nearshore as well as sediment transport, within this reach is likely limited due to the presence of bulkheads. In addition, the majority of the upland portion of the reach contains residential lawns that may reduce water storage as well as increase runoff rates, and may also act as point sources for contaminants such as fertilizers, herbicides, and pesticides. Water quality and quantity within this reach is also likely impacted by the existing residential development including impacts resulting from impervious surfaces such as increased run-off rates and decreased water storage capability. The hydrologic function for this reach is considered to be low.

This reach also has low vegetative function. The natural shoreline has been highly altered by residential development and the majority of the vegetation is maintained yards with grass, gardens and ornamental shrubs. Very little to no overhanging shoreline vegetation or trees are present within this reach.

This reach has a low habitat function resulting from the highly impacted vegetation and hydrologic process as discussed above and contains no mapped habitat areas.

Based upon the ratings listed above, overall shoreline function within this reach is considered to be low.

2.2 REASONABLY FORESEEABLE FUTURE DEVELOPMENT

The majority of reasonably foreseeable future development for MR1 is limited to single family residences. MR1 has two (2) vacant parcels that are located, either completely or in-part, within the shoreline jurisdiction and three (3) developed parcels that are partially located within the shoreline jurisdiction and that could be potentially further subdivided. All of these properties are zoned for single-family residential development, RL, which allows for the development of 4 to 5 units per acre. No other new or intensified upland development is anticipated in this reach. Redevelopment of the parcels within this reach may also occur, but no plans for redevelopment are known at this time.

Future development may also include the creation of additional facilities or redevelopment of the Liberty Marina or Poulsbo Yacht Club, including over-water development; however, no such

² Existing use and functions data for each reach is summarized from the material presented within the City of Poulsbo Shoreline Master Program Update: Inventory and Characterization document.

plans are known at this time. In addition, future development may also include development of a multi-modal public access path (e.g. pedestrian and bicycle transport) for Net Shed Park; however, it is not on the current Parks 10-year development plan.

DRAFT

Fjord Drive: Potential Development Figure to be inserted in final draft document.

2.3 POTENTIAL IMPACT TO FUNCTION RESULTING FROM FORESEEABLE DEVELOPMENT

The parcels which may be subject to future development are located on the east side of Fjord Drive and are separated from the shoreline by a road and a residential development that are directly adjacent to Liberty Bay. As such, potential impact to function from the foreseeable future development is somewhat reduced as compared to impacts that may occur from new development directly adjacent to the shoreline.

In general, hydrology and water quality/quantity functions may be impacted as development results in an increased number of residential footprints, associated impervious surface areas and associated surface water run-off rates.

Vegetation function within this reach may experience slight levels of further degradation resulting from clearing associated with future development activities. However, due to the parcels distance from the shoreline, it is unlikely that these parcels provide the majority of the normally anticipated vegetation function, such as growth of large trees for shoreline large woody debris recruitment and/or removal finer sediments and inputs through modification precipitation, surface, and groundwater flows.

In general, habitat functions within this reach may experience slight levels of further degradation as future development occurs and results in increased impervious surfaces and removal of existing areas of vegetation. In addition, increases to night time illumination from future residential development may also impact habitat functionality. However, as the parcels that have been identified as potential future development sites are not connected directly to the shoreline or mapped habitat, it is likely that the impacts to habitat will be highly localized and focused on urbanized wildlife species, such as squirrels, raccoons, and songbirds.

2.4 SMP POLICIES AND REGULATIONS CREATED TO ADDRESS POTENTIAL IMPACTS³

Based upon the existing shoreline functions within MR1 as identified within the Inventory and Characterization document, the majority of the length of the reach has been designated as Shoreline Residential as shown on the Official Shoreline Map. The purpose of the Shoreline Residential (SR) designation is to accommodate residential development that is consistent with the SMP policies; protection of ecological functions and natural habitat, and restoration where feasible; and provision of appropriate public physical access and recreational uses. Regulations specific to the SR designation include the following:

16.08.210 Land division and boundary line adjustments

³ The Cumulative Impacts Analysis is focused on impacts to shoreline functions such as hydrology (water quality/quantity), vegetation and habitat. Therefore, the SMP policies and regulations presented within this section are specific to those items of code that address shoreline functions and do not address shoreline concerns that are not related to function, including but not limited to items such as public access and view.

C. In the SR and HI environments, lots shall contain sufficient buildable area located outside of the shoreline buffer and buffer setback to accommodate reasonable use according to the environment designation and zoning.

16.08.220 Lot Coverage by Buildings and Structures

A. SR environment: For lots that are more than 7,500 square feet, maximum lot coverage shall be 35%. For lots that are 7,500 square feet or less, maximum lot coverage shall be 50%.

16.08.350 Lighting (C)

2. For properties in the SR or HI environments located adjacent to residential uses, exterior lighting fixtures shall produce a maximum initial luminance value of 0.6 foot-candle (as measured at three feet above grade) at the site boundary, and drop to 0.1 foot-candle on the abutting property as measured within 15 feet of the property line.

The reasonably foreseeable future development identified within this reach will occur within properties that are part of the SR designation. The specific regulations listed above have been created to address the potential impacts that may result from development including, but not limited to ensuring that hydrologic functions are protected by limiting impervious surfaces, vegetative functions are protected by requiring buildable area outside the shoreline setbacks/buffers, and reducing light impacts along the shoreline.

Two parcels within this reach have been assigned a Natural (N) designation as opposed to the SR designation proposed for the majority of the reach. These two parcels are currently utilized as Net Shed Park and Oyster Plant Park. The purpose of the N designation is to protect and restore shoreline areas that are relatively free of human influence, or that include intact or minimally degraded shoreline functions that are sensitive to proposed impacts from human use. The SMP provides specific regulations for the N designation limiting lot coverage to 20% (PMC 16.08.220) and land division to ensure buildable area outside the required buffers (PMC 16.08.210) to protect shoreline function.

There is no identified reasonably foreseeable future development within the N designation within this reach. As such, the regulations identified for the N designation would be utilized to protect existing function in the event that unforeseen development or redevelopment occurs within this designation of the reach.

In addition to the specific environmental designations listed above, Section 7 of this document addresses SMP provisions that are globally assigned to the entire shoreline area. These regulations have also been designed to address the potential impacts to shoreline function in this reach as identified in Section 2.3.

3 MARINE REACH 2

Marine Reach 2 (MR2) corresponds to the City of Poulsbo's Downtown Core Planning Segment. MR2 is located on the eastern side of Liberty Bay and is located between American Legion Park and the Marine Science Center.

3.1 EXISTING SHORELINE USE AND FUNCTIONS

MR2 is characterized by commercial development, primarily commercial/retail and offices, and other public spaces, such as public assembly, parks, and parking, and coincides with the oldest portion of Poulsbo.

Due to the extensive commercial development in this reach, hydrologic function, including water quality and quantity, within this reach is considered low. The majority of the shoreline is armored (75%) preventing water and sediment movement between the upland and marine waters. In addition, water quality and quantity within this reach is likely impacted by the existing commercial development which has resulted in nearly complete impervious surface cover throughout the reach.

Vegetative function within this reach is also low. As noted, the majority of the parcels within this reach are developed and contain impervious surfaces that extend to the shoreline. Vegetation within the reach is primarily provided by the landscaped areas of the American Legion Park as well as a narrow strip of native and invasive vegetation located along the slopes of the three residential properties in the northernmost portion of the reach.

In addition, this reach has a low habitat function resulting from the nearly complete impervious surface coverage and limited vegetation as described above and contains no mapped habitat areas.

Based upon the rating listed above, overall shoreline function within this reach is considered to be low.

3.2 REASONABLY FORESEEABLE FUTURE DEVELOPMENT

MR2 is nearly completely "built out", meaning that nearly all of the areas in which building may be permitted are covered by existing buildings, impervious surfaces (roads and parking lots) and/or artificial landscaping. As such, reasonably foreseeable future development is limited to redevelopment.

Future development may also include additional facilities for the Port of Poulsbo, including over-water development; however, no such plans are known at this time.

Note: As there are no known development areas within this reach, a Potential Future Development Map has not been generated for this reach.

3.3 POTENTIAL IMPACT TO FUNCTION RESULTING FROM FORESEEABLE DEVELOPMENT

The existing hydrologic functionality, including water quality/quantity functions, of this reach is compromised by the fully built out nature of this reach. Water quality and quantity may be further impacted if coverage of the remaining vegetation areas with impervious surfaces is allowed to occur in conjunction with redevelopment activities.

Only minimal amounts of vegetation exist within this reach, including grass fields of American Legion Park and a narrow strip of primarily invasive species vegetation along the shoreline of the residential lots to the north of the reach. Intact shoreline vegetation is so limited that it is unlikely to provide any significant function except at a very localized scale (i.e., shading immediately below any overhanging vegetation). Potential future redevelopment is not anticipated to impact the existing vegetative function.

Due to the “built out” quality of this reach and the negligible amount of existing habitat, potential future redevelopment is not anticipated to impact the existing habitat function.

This reach has the least potential for restoration relative to other shoreline reaches within the City. Its function as the downtown core as well as the existing structures and water dependent uses prevents substantial restoration of function.

3.4 SMP POLICIES AND REGULATIONS CREATED TO ADDRESS POTENTIAL IMPACTS

Based upon the existing functions within Marine Reach 2, the entire length of the reach has been designated as High Intensity, as identified on the Official Shoreline Map. The purpose of the High Intensity (HI) designation is to provide for areas of moderate commercial and mixed commercial-residential development. This allows for optimum use of shoreline areas that are presently developed with commercial-type uses, while protecting remaining shoreline ecological functions from further degradation. Regulations specific to the HI designation includes the following:

16.08.210 Land division and boundary line adjustments

C. In the SR and HI environments, lots shall contain sufficient buildable area located outside of the shoreline buffer and buffer setback to accommodate reasonable use according to the environment designation and zoning.

16.08.220 Lot coverage by buildings and structures

B. HI environment: From 0 to 125 feet from the OHWM, maximum lot coverage shall be 50%. In other areas, maximum lot coverage shall be 80%.

16.08.350 Lighting (C)

2. For properties in the SR or HI environments located adjacent to residential uses, exterior lighting fixtures shall produce a maximum initial luminance value of 0.6 foot-

candle (as measured at three feet above grade) at the site boundary, and drop to 0.1 foot-candle on the abutting property as measured within 15 feet of the property line.

As noted in the text above, this reach is considered to be “built out” and any future development would be focused on redevelopment of existing structures. A lift to shoreline function in this reach, such as an improvement to water quality/quantity could be accomplished through adherence to the SMP regulations listed.

In addition to the specific environmental designations listed above, Section 7 of this document addresses SMP provisions that are globally assigned to the entire shoreline area. These regulations have also been designed to address the potential impacts to shoreline function in this reach as identified in Section 3.3.

DRAFT

4 MARINE REACH 3

Marine Reach 3 (MR3) corresponds to the City of Poulsbo's Front Street planning segment. MR3 is located on the eastern side of Liberty Bay and extends from Lindvig Way to American Legion Park.

4.1 EXISTING SHORELINE USE AND FUNCTIONS

MR3 is characterized by single and multi-family residential development, and limited commercial development within the northern portion of the reach.

Hydrologic function, including water quality and water quantity functions, within this reach is medium. The reach contains only moderate amounts of shoreline armoring (27 %) and the majority of the upland contains multiple-canopied vegetation which allows for higher amounts of water storage and treatment than found with reaches where the majority of the land is covered by impervious surfaces.

Vegetative function within this reach is also considered to be medium. As noted above, the majority of the upland contains multiple-canopied vegetation. However, the parcels located adjacent to the northern end of the reach are almost completely covered by impervious surfaces.

Due to the minimal levels of mapped habitat and in consideration of the existing level of hydrologic and vegetation function, the habitat function rating for this reach is medium.

Based upon the ratings listed above, overall shoreline function within this reach is considered to be medium.

4.2 REASONABLY FORESEEABLE FUTURE DEVELOPMENT

MR3 has one (1) undeveloped parcel within the shoreline zone, located on the west side of Front Street. Because of the overall topography (steep bluff critical area), constrained access, and limited "buildable zone" area, no new subdivisions on the west (waterward) side of Front Street will be allowed. It is likely that development of the remaining undeveloped parcel will require use of the "reasonable use" provision (PMC 16.20.130). In addition, although the property is currently zoned for multi-family residential, RM, which allows for the development of 10 to 14 units per acre. City of Poulsbo staff is proposing that it be rezoned to RL, which allows for 4 to 5 units per acre when the SMP comp plan/zoning amendment is adopted. If approved, it is likely that future development will be limited to one single-family home. No other new or intensified development is anticipated within this reach. Redevelopment of the parcels within this reach may also occur, but no plans for redevelopment are known at this time.

FIGURE

4.3 POTENTIAL IMPACT TO FUNCTION RESULTING FROM FORESEEABLE DEVELOPMENT

The existing hydrologic functionality, including water quality/quantity functions, of this reach may be impacted if additional bulkheads are permitted in this reach. In addition, water quality and quantity may be impacted if increases to impervious surfaces are allowed to occur.

Some reduction to vegetation function within this reach may occur as a result of the development of the anticipated single family residence if vegetation adjacent to the shoreline is permitted to be removed to allow for view or creation of a yard.

Habitat functions within this reach may experience slight levels of further degradation as future development occurs, especially if combined with increases to impervious surfaces and reductions to shoreline vegetation. In addition, general increases to night time illumination from future residential development may also impact habitat functionality. However, as only one parcel has new development potential within this reach, the resultant increase in night time illumination is limited.

4.4 SMP POLICIES AND REGULATIONS CREATED TO ADDRESS ANTICIPATED IMPACTS

Based upon the existing functions within MR3, the length of the reach has been divided into Shoreline Residential, Natural and High Intensity designations, as identified on the Official Shoreline Map.

For the majority of the reach, the first 125 feet of upland area extending landward from the OHWM is designated as Natural (N). The purpose of the N designation is to protect and restore shoreline areas that are relatively free of human influence, or that include intact or minimally degraded shoreline functions that are sensitive to proposed impacts from human use. The SMP provides specific regulations for the N designation limiting lot coverage to 20% (PMC 16.08.220) and land division to ensure buildable space outside of the required shoreline buffers (PMC 16.08.210) to protect shoreline function.

The N designation was applied to this area to protect the existing shoreline functionality. Additionally, there is no identified reasonably foreseeable future development within the N designation within this reach. As such, the regulations for the N designation would be utilized to protect existing function in the event that unforeseen development or redevelopment occurs within this designation of the reach.

The Shoreline Residential (SR) designation within this reach is located 125 feet upland of the OHWM, paralleling the upland boundary of the N designation, for the majority of the reach. The purpose of the Shoreline Residential (SR) designation is to accommodate residential development that is consistent with the SMP policies; protection of ecological functions and natural habitat, and restoration where feasible; and provision of appropriate public physical access and recreational uses. Regulations specific to the SR designation include the following:

16.08.210 Land division and boundary line adjustments

C. In the SR and HI environments, lots shall contain sufficient buildable area located outside of the shoreline buffer and buffer setback to accommodate reasonable use according to the environment designation and zoning.

16.08.220 Lot Coverage by Buildings and Structures

A. SR environment: For lots that are more than 7,500 square feet, maximum lot coverage shall be 35%. For lots that are 7,500 square feet or less, maximum lot coverage shall be 50%.

16.08.350 Lighting (C)

2. For properties in the SR or HI environments located adjacent to residential uses, exterior lighting fixtures shall produce a maximum initial luminance value of 0.6 foot-candle (as measured at three feet above grade) at the site boundary, and drop to 0.1 foot-candle on the abutting property as measured within 15 feet of the property line.

The reasonably foreseeable future development identified within this reach will occur within properties that are part of the SR designation. The specific regulations listed above have been created to address the potential impacts that may result from development including, but not limited to ensuring that hydrologic functions are protected by limiting impervious surfaces, vegetative functions are protected by requiring buildable area outside the shoreline setbacks/buffers, and reducing light impacts along the shoreline.

The HI designation within this reach is located in the northernmost two parcels of this reach. The purpose of the High Intensity (HI) designation is to provide for areas of moderate commercial and mixed commercial-residential development. This allows for optimum use of shoreline areas that are presently developed with commercial-type uses, while protecting habitat and ecological functions from further degradation. The SMP provides specific regulations for the HI designation that limits land division to ensure buildable area outside of the shoreline buffer (PMC 16.08.210), limit lot coverage to a value between 50% and 80% (PMC 16.08.220(B)) and limit exterior lighting (PMC 16.08.350(C)).

There is no identified reasonably foreseeable future development within the HI designation within this reach. As such, the regulations for the HI designation would be utilized to protect existing function in the event that currently unforeseen development, such as redevelopment, occurs within this designation of the reach.

In addition to the specific environmental designations listed above, Section 7 of this document addresses SMP provisions that are globally assigned to the entire shoreline area. These regulations have also been designed to address the potential impacts to shoreline function in this reach as identified in Section 4.3.

5 MARINE REACH 4

Marine Reach 4 (MR4) corresponds to the City of Poulsbo's Estuary planning segment. MR4 is located to the north of Lindvig Way and includes the tidally influenced mouth of Dogfish Creek at the head of Liberty Bay and associated stream and wetland areas.

5.1 EXISTING SHORELINE USE AND FUNCTIONS

The majority of the shoreline of this reach coincides with Fish Park, but the reach also includes single-family residential development and limited commercial development near the intersection of Bond Rd and Lindvig Way.

Hydrologic function of this reach is considered to be high owing to low levels of development and shoreline armoring. Water quality and quantity functions within this reach are likely to be more intact than the other reaches within this jurisdiction due to the relatively lower amounts of shoreline armoring and higher amounts of native vegetation.

Vegetation function of this reach is also considered medium. The majority of the reach is vegetated and is the most vegetated of the reaches within the City of Poulsbo. Portions of the reach have been notably modified including a single family residence and areas of limited commercial development with associated grass yards and other ornamental landscaping. The majority of the reach includes upland areas of multiple canopied vegetation as well as areas of overhanging vegetation including deciduous trees and shrubs.

This reach is categorized as providing a medium level of habitat. However, with the existing function and the planned habitat restoration within Fish Park already underway, this reach provides the highest amount of habitat function of all the reaches within the City. This is due to the relatively undisturbed hydraulic, vegetative, and habitat function within the reach and the location of the reach within the estuarine/intertidal portion of Liberty Bay at the mouth of Dogfish Creek. It is anticipated that the addition of habitat area and function within the reach will be provided as the Fish Park restoration plan, which includes the Dogfish Creek estuary, is implemented.

Based upon the ratings listed above, overall shoreline function within this reach is considered to be medium high.

5.2 REASONABLY FORESEEABLE FUTURE DEVELOPMENT

Two (2) developed parcels on the east side of Bond Road are partially within the shoreline jurisdiction and could potentially be further subdivided under existing zoning designations. However, the steep topography and limited access to these parcels may constrain future development.

The remainder of MR4 is almost all in public parkland, Fish Park. The City is currently in the process of improving Fish Park's public access points and public recreation facilities, such as trails and overlooks, but no other new or intensified development is currently anticipated within Fish Park.

Redevelopment of the parcels within this reach may also occur, but no plans for redevelopment are known at this time.

DRAFT

FIGURE

5.3 POTENTIAL IMPACT TO FUNCTION RESULTING FROM FORESEEABLE DEVELOPMENT

The existing hydrologic functionality, including water quality/quantity functions, of this reach may be compromised if development occurs on parcels directly adjacent to the shoreline. This reach contains estuary wetland areas which are known to provide high levels of shoreline and habitat function, but these areas can be adversely impacted by development. Water quality and quantity may also be impacted if unmitigated increases to impervious surfaces are allowed to occur.

Similar to hydrologic function, vegetative function could be compromised if development occurs on parcels directly adjacent to the shoreline. However, the parcels identified for foreseeable future development are separated from the shoreline by Bond Road NE and are anticipated to be limited by available access and steep topography. As such it is anticipated that vegetation functionality directly adjacent to the shoreline will not be impacted by future development. The vegetation function of the portions of this reach adjacent to the shoreline is more intact than the other reaches within the City. Unanticipated redevelopment should be prevented from impacting intact shoreline vegetation function.

In addition, future development is not anticipated to impact shoreline habitat function as it is separated from the shoreline by Bond Road NE. However, redevelopment adjacent to the shoreline should be prevented from impacting intact habitat function.

5.4 SMP POLICIES AND REGULATIONS CREATED TO ADDRESS ANTICIPATED IMPACTS

Based upon the existing functions within MR4, the length of the reach has been divided into Urban Conservancy, Shoreline Residential, and Natural designations as identified on the official shoreline map.

The three southeastern most lots within this reach are designated Urban Conservancy (UC). The purpose of the UC designation is to achieve sustainable resource use, by preserving the natural landforms and shoreline vegetation as much as possible, while promoting public shoreline access, views and recreation. The SMP provides specific regulations for the UC designation that limit lot coverage to the existing amount on site at the time of adoption of the SMP (PMC 16.08.220(C)) and ensuring buildable area outside of the shoreline buffers for created lots (PMC 16.08.210).

No reasonably foreseeable future development has been identified in the UC designation of this reach. As such, the UC regulations would apply to redevelopment only.

The lots within this reach that are designated Shoreline Residential (SR) are located on the eastern side of Bond Street. The purpose of the Shoreline Residential (SR) designation is to accommodate residential development that is consistent with the SMP policies; protection of ecological functions and natural habitat, and restoration where feasible; and provision of appropriate public physical access and recreational uses. Regulations specific to the SR designation include the following:

16.08.210 Land division and boundary line adjustments

C. In the SR and HI environments, lots shall contain sufficient buildable area located outside of the shoreline buffer and buffer setback to accommodate reasonable use according to the environment designation and zoning.

16.08.220 Lot Coverage by Buildings and Structures

A. SR environment: For lots that are more than 7,500 square feet, maximum lot coverage shall be 35%. For lots that are 7,500 square feet or less, maximum lot coverage shall be 50%.

16.08.350 Lighting (C)

2. For properties in the SR or HI environments located adjacent to residential uses, exterior lighting fixtures shall produce a maximum initial luminance value of 0.6 foot-candle (as measured at three feet above grade) at the site boundary, and drop to 0.1 foot-candle on the abutting property as measured within 15 feet of the property line.

The anticipated future development within this reach is located on parcels that are designated SR. However, as noted in Section 5.2, the parcels within this shoreline designation are constrained by steep topography and limited access and as a result future development of these parcels may be limited or may not occur.

The Natural environmental designation within this reach coincides with Fish Park. The purpose of the N designation is to protect and restore shoreline areas that are relatively free of human influence, or that include intact or minimally degraded shoreline functions that are sensitive to proposed impacts from human use.

There is no future development anticipated in Fish Park beyond current efforts to improve existing public access and recreation facilities. Adherence to the regulations listed above, will assist in maintaining shoreline functionality in these areas.

As noted in the Section 5.3 of this document, redevelopment adjacent to the shoreline within this reach may adversely impact function, especially in the estuary area where Dogfish Creek flows into Liberty Bay. As such, in addition to the specific environmental designation code outlined above, the shorelines within this reach that are adjacent to Dogfish Creek are subject to the following additional protective measures, including an increase of the required buffer to 150 feet (SP-18) and the prohibition of realignment and re-channelization of Dogfish Creek (SP-19).

In addition to the specific environmental designations listed above, Section 7 of this document addresses SMP provisions that are globally assigned to the entire shoreline area. These regulations have also been designed to address the potential impacts to shoreline function in this reach as identified in Section 5.3.

6 MARINE REACH 5

Marine Reach 5 (MR5) corresponds to the City of Poulsbo's Western Shoreline planning segment. MR5 is located on the western side of Liberty Bay and extends from Lindvig Way south to the end of the Poulsbo City/UGA boundary.

6.1 EXISTING SHORELINE USE AND FUNCTIONS

MR5 is characterized by commercial/retail and offices, two multifamily residential parcels, multiple single-family residential parcels, and parks. The development of this area reflects more recent annexations into the City, and/or incorporations into the designated Urban Growth Area, than the older development on the east side of Liberty Bay. The reach also includes a higher percentage of undeveloped parcels than the other reaches within the jurisdiction.

Despite the larger number of undeveloped parcels within this reach, hydrologic function within this reach is low. The majority of the upland portion of the reach contains residential lawns that are likely to impact water storage and may also act as point sources for contaminants such as fertilizers, herbicides, and pesticides. Water quality and quantity within this reach is likely impacted by the existing residential development including impacts due to impervious surfaces.

Due to the level of alteration to the vegetation, the vegetation function of this reach is considered to be low. Vegetation within this reach is primarily comprised of landscaped vegetation associated with single family residences including maintained yards with grass, gardens and ornamental shrubs. Water quality and quantity within this reach may also be impacted by the modifications to vegetation within this reach.

Due to the minimal levels of mapped habitat and in conjunction with the habitat disturbance presented by the reduced hydrologic and vegetation functions, the habitat function rating for this reach is low.

Based upon the ratings listed above, overall shoreline function within this reach is considered to be low.

6.2 REASONABLY FORESEEABLE FUTURE DEVELOPMENT

MR5 has eight (8) vacant single-family parcels, and two (2) developed parcels that could potentially be further subdivided, located partially within the shoreline jurisdiction. The zoning is RL, which allows for 4 to 5 dwelling units per acre, and future development would be single-family homes. No other new or intensified development is anticipated within this reach. Additionally, redevelopment of the parcels within this reach may also occur, including residential and commercial use, but no plans for redevelopment are known at this time.

FIGURE

6.3 POTENTIAL IMPACT TO FUNCTION RESULTING FROM FORESEEABLE DEVELOPMENT

In general, hydrology and water quality/quantity functions may be impacted as development results in an increased number of residential footprints and associated impervious surface areas and associated surface water run-off rates.

Vegetation function within this reach may experience slight levels of further degradation as future residential development occurs. Existing native vegetation adjacent to the shoreline may be removed to create impervious surfaces or ornamental lawns and associated landscaping commonly associated with residences. In addition, tall trees adjacent to the shoreline may be removed or topped to improve views.

Habitat functions within this reach may be impacted by future development, especially if associated with hydrology and vegetation impacts.

6.4 SMP POLICIES AND REGULATIONS CREATED TO ADDRESS ANTICIPATED IMPACTS

Based upon the existing functions within Marine Reach 5, the length of the reach has been divided into High Intensity, Shoreline Residential, and Natural designations as identified on the Official Shoreline Map.

Future development is only anticipated for parcels located within the Shoreline Residential designation. The purpose of the Shoreline Residential (SR) designation is to accommodate residential development that is consistent with the SMP policies; protection of ecological functions and natural habitat, and restoration where feasible; and provision of appropriate public physical access and recreational uses. Regulations specific to the SR designation include the following:

16.08.210 Land division and boundary line adjustments

C. In the SR and HI environments, lots shall contain sufficient buildable area located outside of the shoreline buffer and buffer setback to accommodate reasonable use according to the environment designation and zoning.

16.08.220 Lot Coverage by Buildings and Structures

A. SR environment: For lots that are more than 7,500 square feet, maximum lot coverage shall be 35%. For lots that are 7,500 square feet or less, maximum lot coverage shall be 50%.

16.08.350 Lighting (C)

2. For properties in the SR or HI environments located adjacent to residential uses, exterior lighting fixtures shall produce a maximum initial luminance value of 0.6 foot-candle (as measured at three feet above grade) at the site boundary, and drop to 0.1 foot-candle on the abutting property as measured within 15 feet of the property line.

The reasonably foreseeable future development identified within this reach will occur within properties that are part of the SR designation. The specific regulations listed above have been created to address the potential impacts that may result from development including, but not limited to ensuring that hydrologic functions are protected by limiting impervious surfaces, vegetative functions are protected by requiring buildable area outside the shoreline setbacks/buffers, and reducing light impacts along the shoreline.

The Natural environmental designation within this reach coincides with a public park, Nelson Park and areas utilized as park space, such as the area east of 3rd AVE NW. The purpose of the N designation is to protect and restore shoreline areas that are relatively free of human influence, or that include intact or minimally degraded shoreline functions that are sensitive to proposed impacts from human use. The SMP provides specific regulations for the N designation limiting lot coverage to 20percent (PMC 16.08.220) and land division to ensure buildable space outside of the required shoreline buffers (PMC 16.08.210) to protect shoreline function.

There is no identified reasonably foreseeable future development within the N designation within this reach. As such, the regulations identified for the N designation as provided above would be utilized to protect existing function in the event that unforeseen development or redevelopment occurs within this designation of the reach.

The HI designation within this reach is located in the northernmost parcel of this reach. The purpose of the High Intensity (HI) designation is to provide for areas of moderate commercial and mixed commercial-residential development. This allows for optimum use of shoreline areas that are presently developed with commercial-type uses, while protecting shoreline ecological functions from further degradation. The SMP provides specific regulations for the HI designation that limits land division to ensure buildable area outside of the shoreline buffer (PMC 16.08.210), limit lot coverage to a value between 50% and 80% (PMC 16.08.220(B)) and limit exterior lighting (PMC 16.08.350(C)).

There is no identified reasonably foreseeable future development within the HI designation within this reach. As such, the regulations identified for the HI designation would be utilized to protect existing function in the event that unforeseen development or redevelopment occurs within this designation of the reach

In addition to the specific environmental designations listed above, Section 7 of this document addresses SMP provisions that are globally assigned to the entire shoreline area. These regulations have also been designed to address the potential impacts to shoreline function in this reach as identified in Section 6.3.

7 GENERAL SHORELINE MANAGEMENT POLICIES AND REGULATIONS

In addition to the regulations related to specific environmental designation, the SMP contains general policies and regulations that are applicable to all areas within the shoreline jurisdiction and are designed to protect shoreline functionality, prevent cumulative impacts from development, and ensure no net loss of ecologic function.

7.1 SHORELINE MASTER PROGRAM POLICIES

7.1.1 Shoreline Environmental Designations

Section A of the SMP Policies identifies all of the policies related to shoreline environmental designations.

The first policy within this section is focused on no net loss and is applicable to all shoreline designations requiring that:

SP-1: New development and uses within the City's shoreline jurisdiction shall be appropriately mitigated to ensure no net loss of shoreline ecological values and functions.

In this way, the City of Poulsbo sets a foundational policy that focuses on no net loss of shoreline ecological values and functions.

The remainder of Section A defines and provides policy for the environmental designations within the City. The majority of these designations, as well as how they protect shoreline functionality, have been addressed in the narrative analysis for each reach provided in the previous sections. In addition to the upland designations of High Intensity, Shoreline Residential, Natural, and Urban Conservancy, all area waterward of the OHWM are designated as "Aquatic". The Aquatic (A) designation includes all lands waterward of the ordinary high water mark, including private and public tidelands, state submerged lands, and areas designated as critical saltwater habitat. This designation includes policies that focus on the preservation and minimization of impact to nearshore ecological function and critical saltwater habitat areas (SP-14 and 15) and limits overwater and in-water construction (SP-16)

7.1.2 Shoreline Habitat and Critical Areas

Section B of the SMP Policies identifies City policies related to the protection of shoreline habitat and associated critical areas including critical saltwater habitat areas, as defined by WAC 173-26-221(2)(ii), and streams. These policies set the foundation for regulatory measures that will be taken to avoid impacts to shoreline functionality and mitigation for impacts that cannot be avoided.

The City's primary policy to protect shoreline function is the establishment of shoreline setbacks. Poulsbo's shoreline zone will be regulated as two distinct areas: (1) the first 125 feet from the ordinary high water mark (OHWM) containing the shoreline buffer and buffer setback areas, where no or little development will be allowed, and (2) from 125 feet to 200 feet from the OHWM, where appropriate development may be allowed. Reduction to buffers and setbacks will only be permitted with Department of Ecology approval and only after the applicant demonstrates that the proposed reduction is combined with "*superior protection, mitigation and/or restoration measures that would be equal to or exceed the protective value of the standard buffer and setback, and result in no net loss of shoreline ecological values and functions*".

To protect the higher levels of shoreline functionality and flood plain in the estuarine portion of Dogfish Creek, the City of Poulsbo has established a policy to assign a greater shoreline buffer to this area. Pursuant to SP-18, this area shall have a buffer that extends *either "(1) 150 feet on both sides of the creek, with an additional 25 foot structural setback on both sides as provided in the City's Critical Areas Ordinance or as subsequently amended, or, (2) 25 feet on each side of the 100-year floodplain as shown on FEMA's official flood maps for the City of Poulsbo, whichever is greater."* Further protection to the natural stream functions of Dogfish Creek are provided by SP-19, which prevents stream realignment, rechannelization, the clearing of adjacent vegetation and LWD, and water withdrawals and diversion unless such actions are taken for habitat restoration and enhancement.

The City of Poulsbo has also defined policies regarding protection and prevention of cumulative impacts to “Critical saltwater habitat”. Critical Saltwater habitat as defined in WAC 173-26-221(2)(ii) includes spawning and holding areas for forage fish, such as herring, smelt and sand lance; shellfish beds; mudflats, intertidal habitats with vascular plants, and areas with which priority species have a primary association. Within Liberty Bay, areas of Critical Saltwater habitat include sand lance and smelt spawning areas as well as hardshell clam areas. Additionally, Liberty Bay aquatic areas and shorelines include a seal/sea lion haulout and eagle use buffer, and populations of anadromous fish including bull trout, chinook and chum salmon and rainbow trout, may frequent the bay and its streams. Maps of designated critical saltwater habitat areas are maintained by the City and included in the Comprehensive Plan and in the Shoreline Inventory to promote protection of these areas. Policies SP-26 through SP-30 provide limitations and increased review requirements on new development within and adjacent identified critical saltwater habitat areas. SP-31 requires that repair and reconstruction of existing legal structures mitigate adverse impacts to avoid net loss of ecological function.

Section B also establishes policy on general in-water and nearshore environment and use. SP-32 through SP-35 limit new over water construction to water dependent uses, limit the dredging and filling of tide and aquatic lands to habitat restoration and maintenance activities, and require alternative measures to hard shoreline armoring.

In addition to the shoreline buffer and setback requirements and restrictions to over and in water construction identified above, shoreline function, with specific focus on vegetation function, will be protected by the following policies:

- Existing native shoreline vegetation in an Aquatic area or along the shoreline shall be preserved and permanently protected, with limited exceptions (SP-40)
- Mitigation shall be required, if a project results in unavoidable impacts to shoreline vegetation, to ensure no net loss (SP-41)
- Projects within the shoreline zone shall include provisions for enhancement and/or restoration of native shoreline vegetation (SP-42)

Existing, native shoreline vegetation will also be preserved through the City’s existing development regulations, including the Clearing and Grading Ordinance, Zoning Ordinance, Public Tree Ordinance, and Critical Areas Ordinance.

7.1.3 Water Quality

Section C of the SMP policies document includes policies designed to protect water quality function within the shoreline reaches. Provisions include requiring new development to adhere to current stormwater planning, including low impact development where feasible, (SP-43 and 44); requiring development proposals to demonstrate that there will be no net loss of ecological function as a result of the proposal (SP-45); and requiring that new development and failing on-site sewage systems connect to city sewer (SP 46).

In addition to these requirements, SP-49 notes that the City shall work with local ports, marinas and yacht clubs to develop plans to reduce water quality impacts that occur as a result of boat operations and maintenance.

7.2 SHORELINE MASTER PROGRAM REGULATIONS

Utilizing the Policies identified in Section 7.1 of this document as well as the results of the Inventory and Characterization document, the following regulations have been generated to prevent cumulative impacts and provide the City with no net loss of ecological function.⁴

⁴ This section only references regulations that address issues related to the protection of habitat function and the prevention of cumulative impacts and net loss. The draft SMP also includes regulations to address other items mandated by the SMA and guidance documents, such as public access and administrative processes, which are not covered within this document.

7.2.1 General Provisions

Part I of the Master Program regulations identifies the authority, scope, purpose and definitions that guide the Shoreline Master Program. Within Part I, the purposes section (PMC 16.08.030), specifically address the protection of shoreline function. These purposes are summarized as follows:

- Ensure no net loss of ecological function.
- Protect state waters and associate fish and wildlife from adverse impact.
- To provide coordinated planning, which adheres to local, state and federal requirements, to prevent adverse impacts from unplanned development.

7.2.2 Regulations applying to all shoreline development and activities

Building upon the General Provisions of Part I and the Shoreline Master Program policies, Part II of the Master Program Regulations focuses on requirements that that apply to all development within the shoreline zone, including those related to mitigation and water quality. These requirements include standards for maintaining water quality, preventing disruption to shoreline resources and habitat, and requiring permit applications to be reviewed for long-term and regional effects. Proposals that cannot comply with the requirements are subject to denial by City review staff.

Part II (PMC 16.08.160) also provides specific water quality controls for stormwater, promotes the use of low impact development standards, as well as limitations to the application of pesticides, herbicides, and fertilizers as recommended in the Inventory and Characterization document to address possible impacts to hydrology and water quality/quantity functions based on anticipated future development.

7.2.3 Shoreline Activities Development and Uses

The regulations in Part III focus on shoreline environment uses, standards for development and uses, and divisions. Uses that may impact the existing shoreline function of an environmental designation are prohibited. This section supports avoidance, minimization, and mitigation to impacts to shoreline function through the use of buffers and setbacks and lot size and coverage requirements. Specific regulations for residential, commercial, mixed, boating related, and park/recreational uses that support shoreline function are also provided.

Part III also contains increased buffer requirements of Dogfish Creek Estuary (PMC 16.08.220(A)), which will assist in maintaining existing shoreline function within the associated channel migration zones and also in avoiding avulsion, erosion, or flooding impacts. This increased buffer requirement was generated, in part, based on specific recommendation in within the Inventory and Characterization document.

7.2.4 Design Requirements

Part IV regulates design within the shoreline including site and building design, lighting and the maintenance of native shoreline vegetation.

Part IV (PMC 16.08.330) contains specific native vegetation and landscaping requirements that require the preservation of existing vegetation and the creation of new areas of shoreline vegetation for new development as well as redeveloping areas as recommended in the Inventory and Characterization document to address possible impacts to shoreline vegetation functions based on potential future development.

7.2.5 Shoreline Modifications

The regulations of Part V address shoreline modifications including shoreline stabilization, dredging, fill, and tree and vegetation removal in the shoreline buffer. As recommended in the Inventory and Characterization document, all of the shoreline modification regulations require minimization of shoreline structures to the area necessary to perform the intended function and preference is given to shoreline modifications that have lesser impacts on ecological functions.

8 INCREMENTAL AND UNANTICIPATED IMPACTS

WAC 173-26-201(3)(d)(iii) requires that each jurisdiction avoids “*unanticipatable or uncommon impacts that cannot be reasonably identified at the time of master program development*”. In addition, the DOE SMP handbook recommends that the Cumulative Impacts Analysis include an evaluation of incremental impacts, which if not addressed can add up to larger cumulative impacts. However, it should be noted that there is no metric to define incremental or unanticipated impacts or those methods designed to address said impacts to determine efficacy.

Generally, the City will address impacts by requiring strict adherence to the SMP; thus reducing the amount of incremental impact due to things such as mitigation failure. In addition, areas of redevelopment will be required to improve shoreline functionality, such as creating new vegetative strips along the shoreline; thus resulting in a net habitat lift that would not occur if there were no such standards for redevelopment.

In addition, the City of Poulsbo will also seek out restoration projects both within the City’s jurisdiction as well as in conjunction with adjacent jurisdictions where appropriate to provide an overall lift to functionality and temporarily address incremental and unintended impacts until such time as metrics for these impacts are available.

DRAFT

9 SUMMARY TABLE

Existing Conditions	Reasonably Foreseeable Future Development and Anticipated impacts on Functions/ Processes	SMP Provisions	Other Restoration Programs ¹	Conclusion
<p>MR 1: Existing development within this reach is primarily single family residential.</p> <p>Overall function is low. High amounts of modification to the natural shoreline in this reach through residential development, including shoreline armoring (56%) and removal of native vegetation have resulted in low hydrologic, vegetation, and habitat functionality. In addition, water quality and quantity is likely to have been impacted by development within this reach.</p> <p>This assessment generally correlates with the medium to high levels of disturbance to both controlling factors (high, medium) and dominant processes (high, medium) as assessed in the EKNA (Refer to Table 14 of the Inventory and Characterization Document).</p>	<p>Reasonably Foreseeable Future Development: Development of vacant or partially developed residential parcels including subdivisions not to exceed 4 to 5 units per acre is anticipated. Undeveloped parcels within this reach are separated from the shoreline by Fjord Street and parcels directly adjacent to the shoreline. Redevelopment may also occur in this reach.</p> <p>Overall land use is likely to remain residential.</p> <p>Effects on Functions/Processes: The development of the anticipated single family residences/subdivisions may result in a degradation existing to water quality and quantity, through increased impervious surfaces and parcel density, as well as hydrology,</p>	<p>Reasonably foreseeable future development will occur within the Shoreline Residential designation of this reach.</p> <p>Specific regulations that address hydrology/water quality and quantity function include 16.08.210(c) and 16.08.220(a) which provide limitations to land division and lot coverage.</p> <p>All development must be set back 125 feet from the shoreline which will protect shoreline vegetation and habitat function.</p>	<p>As identified in the Inventory and Characterization document, Reach specific opportunities to improve shoreline function include:</p> <ul style="list-style-type: none"> • Removal of identified abandoned pilings within this reach (Exhibit S of the Inventory and Characterization document). • Removal of identified wood scraps/old dock within this reach (Exhibit S of the Inventory and Characterization document). • Address documented soil contamination within this reach (Exhibit S of the Inventory and Characterization document). • Promote yard care techniques that are 	<p>Foreseeable future development within this reach is separated from the shoreline by Fjord Road and other residential development. Anticipated impact to the shoreline resulting from this development is likely to be limited in nature and sufficiently addressed by SMP requirements.</p>

	vegetation, and habitat, resulting from clearing for a residence and residential appurtenances such as driveways and yards.		protective of water quality to the residents of this reach	
<p>MR 2: Existing development within this reach is primarily commercial.</p> <p>Overall function is low. The entire length of the reach has been modified through commercial development including shoreline armoring along the majority of the reach (75%), extensive impervious surfaces, and limited native vegetation have resulted in low hydrologic, vegetation and habitat functionality.</p> <p>This assessment generally correlates with the medium to high levels of disturbance to both controlling factors (high) and dominant processes (high, medium) as assessed in the EKNA (Refer to Table 15 of the Inventory and Characterization Document).</p>	<p>Reasonably Foreseeable Future Development: Anticipated future development within this reach is redevelopment of parcels with existing development.</p> <p>Overall land use is likely to remain commercial.</p> <p>Effects on Functions/Processes: Redevelopment may have an impact on existing water quality and quantity especially if development is allowed to extend into the remaining areas of vegetation.</p> <p>Existing vegetative and habitat functionality is minimal, if redevelopment including expansion into the remaining vegetation/habitat areas may eliminate these functions.</p>	<p>Reasonably foreseeable future development (redevelopment) is likely to occur within the High Intensity designation of this reach.</p> <p>All development must be set back 125 feet from the shoreline which will protect shoreline vegetation function.</p>	<p>As identified in the Inventory and Characterization document, Reach specific opportunities to improve shoreline function include:</p> <ul style="list-style-type: none"> • Removal of identified abandoned pilings within this reach (Exhibit S of the Inventory and Characterization document) • Reduce level of impervious surfaces as redevelopment occurs. Utilize low impact development standards as applicable. • MR2 contains a boardwalk along the northern portion of the reach. This boardwalk provides great shoreline viewing opportunities, but is constructed with treated wood and shades the nearshore. If this 	<p>Foreseeable future development within this reach is redevelopment of existing commercial parcels. SMP requirements include provisions for increasing vegetation adjacent to the shoreline and decreasing impervious surfaces. It is anticipated that adherence to these SMP regulations will result in a net lift to the existing marginal functionality within this reach.</p>

			boardwalk is ever in need of repair, it is recommended that the solid wood walk portion be replaced with grating to reduce shading of nearshore habitat.	
<p>MR 3: Existing development within this reach is primarily single-family and multifamily residential as well as a small area of commercial development.</p> <p>Overall function is medium. Reach contains relatively moderate amounts of shoreline armoring (27%) and the majority of the reach contains native plant species. The lack of shoreline armoring and existence of native vegetation provides for higher levels of habitat functionality.</p> <p>This assessment generally correlates with the low to high levels of disturbance to both controlling factors (medium, low) and dominant processes (high, low) as assessed in the EKNA (Refer to Table 16 of the Inventory and Characterization Document).</p>	<p>Future Development: Future development is anticipated to include only one single family residence. Redevelopment may also occur in this reach.</p> <p>Overall land use is likely to remain single family and multifamily residential.</p> <p>Effects on Functions/Processes: The development of the anticipated single family residence may result in a degradation existing to water quality and quantity, through increased impervious surfaces, as well as hydrology, vegetation, and habitat, resulting from clearing for a residence and residential appurtenances such as driveways and yards.</p>	<p>Reasonably foreseeable future development will occur within the Shoreline Residential designation of this reach.</p> <p>Specific regulations that address hydrology/water quality and quantity function include 16.08.210(c) and 16.08.220(a) which provide limitations to land division and lot coverage.</p> <p>All development must be set back 125 feet from the shoreline which will protect</p>	<p>As identified in the Inventory and Characterization document, Reach specific opportunities to improve shoreline function include:</p> <ul style="list-style-type: none"> • Removal of identified abandoned pilings within this reach (Exhibit S of the Inventory and Characterization document). • Removal of identified wood scrap within this reach (Exhibit S of the Inventory and Characterization document). <p>As identified in the Restoration Plan, the City is currently working on the design and permitting of the Liberty Bay Waterfront Trail</p>	<p>Foreseeable future development within this reach is the development of one single family residence. Anticipated impact to the shoreline resulting from this development is likely to be limited in nature and sufficiently addressed by SMP requirements.</p>

		shoreline vegetation function.	which will serve to connect existing trails at American Legion Park and Fish Park.	
<p>MR 4: Existing development for the majority of this reach is a public park. However portions of the reach also include single-family residential development, and limited commercial development.</p> <p>Overall function is medium high. Reach contains no mapped shoreline armoring (0%) and the majority of the reach contains native plant species. The lack of shoreline armoring and existence of native vegetation provides for higher levels of habitat functionality.</p> <p>This assessment generally correlates with the low levels of disturbance to both controlling factors (low) and dominant processes (low) as assessed in the EKNA (Refer to Table 17 of the Inventory and Characterization Document).</p>	<p>Future Development: Future development within the single family and commercial use areas are limited due to access availability and parcel topography. Future development within the public park includes additions to public access points and public recreation facilities. Redevelopment may also occur in this reach.</p> <p>Overall land use is likely to remain park and single family residential.</p> <p>Effects on Functions/Processes: The development of single family and commercial use areas may result in a degradation existing to water quality and quantity, through increased impervious surfaces, as well as hydrology, vegetation, and habitat, resulting from clearing for commercial uses, residences and residential appurtenances such as driveways, parking lots and yards.</p>	<p>Reasonably foreseeable future development will occur within the Shoreline Residential designation of this reach.</p> <p>Specific regulations that address hydrology/water quality and quantity function include 16.08.210(c) and 16.08.220(a) which provide limitations to land division and lot coverage.</p> <p>All development must be set back 125 feet from the shoreline which will protect shoreline vegetation function. Development adjacent to Donkey Creek must be set back</p>	<p>Pursuant to SMP Policy SP-39, Restoration of Dogfish Creek natural stream flows and channels shall be a priority restoration effort.</p> <p>As identified in the Inventory and Characterization document and the Restoration Plan, Reach specific opportunities to improve shoreline function include:</p> <ul style="list-style-type: none"> The Fish Park Master Plan identified a number of restoration efforts to be implemented in both the shoreline and upland areas of Fish Park, such as restoration of natural stormwater flows over the site including feeder channels into Dogfish Creek, wetland and native vegetation restoration and maintenance throughout the site, removal of hazardous materials in old landfill areas, and addition 	<p>Foreseeable future development within this reach is separated from the shoreline by Bond Road NE and may be limited in nature due to steep topography and access limitations. Anticipated impact to the shoreline resulting from this development is likely to be limited in nature and sufficiently addressed by SMP requirements.</p>

		150 feet.	of woody debris and timber falls to restored creek areas.	
<p>MRS: Existing development within this reach includes single and multifamily residential, commercial, and public parks development.</p> <p>Overall function is low. High amounts of modification to the natural shoreline in this reach through residential development; including shoreline armoring (56%) and removal of native vegetation have resulted in low hydrologic, vegetation, and habitat functionality.</p> <p>This assessment is somewhat inconsistent with the low to medium levels of disturbance to the controlling factors (low, medium) and dominant processes (low, medium) as assessed in the EKNA and are likely the result of differing methodologies related to the assessment of residential disturbance to shoreline vegetation (Refer to Table 18</p>	<p>Future Development: Future development may include subdivision and/or residential development of approximately 10 parcels within the shoreline jurisdiction. Redevelopment may also occur in this reach.</p> <p>Overall land use is likely to remain single and multifamily residential with areas of commercial and public parks.</p> <p>Effects on Functions/Processes: The development of single and multi-family residences may result in a degradation existing to water quality and quantity, through increased impervious surfaces, as well as hydrology, vegetation, and habitat, resulting from clearing for a residence and residential appurtenances such as driveways, parking lots and yards.</p>	<p>Reasonably foreseeable future development will occur within the Shoreline Residential designation of this reach.</p> <p>Specific regulations that address hydrology/water quality and quantity function include 16.08.210(c) and 16.08.220(a) which provide limitations to land division and lot coverage.</p> <p>All development must be set back 125 feet from the shoreline which will protect shoreline vegetation</p>	<p>As identified in the Inventory and Characterization document, Reach specific opportunities to improve shoreline function include:</p> <ul style="list-style-type: none"> • Removal of identified abandoned pilings within this reach (Exhibit S of the Inventory and Characterization document). • Removal of identified scrap metal within this reach (Exhibit S of the Inventory and Characterization document). 	<p>Foreseeable future development includes development of approximately 10 parcels. However, 5 of these parcels are separated from the shoreline by roads and/or parcels that are immediately adjacent to the shoreline. Adherence to SMP regulations will minimize effects on shoreline functions and processes that may occur as a result of development.</p>

of the Inventory and Characterization Document).		function.		
--	--	-----------	--	--

1 For all reaches work at or waterward of the OHWM requires permits or approvals from one or more of the following state and federal agencies: U.S. Army Corps of Engineers, Washington Department of Fish and Wildlife, Washington State Department of Natural Resources, or Washington State Department of Ecology (PSM 16.08.130). Each of these regulatory agencies would apply shoreline mitigation requirements and design standards focused on minimizing adverse impacts and improving ecological function. In addition, development projects within the shoreline jurisdiction are also required to comply with PMC 16.20, Critical Areas as well as the City of Poulsbo's Stormwater Manual.

DRAFT

10 SUMMARY OF NET IMPACT TO ECOLOGICAL FUNCTION

As described in this document, the provisions of the draft SMP have been designed to maintain existing shoreline function, produce functional lift where feasible, and result in no net loss of ecological function as required by WAC 173-26-186(8)(d). As discussed in Section 7 of this document, the City of Poulsbo has worked to meet this standard through environmental designations, shoreline policies, and shoreline regulations.

Based upon the minimal amount of foreseeable future development, the policies and regulations of the SMP, and the projects outlined in the Shoreline Restoration Plan, no net loss of ecological function is anticipated with the City of Poulsbo.

11 NO NET LOSS SUMMARY REPORT (ADDENDUM)

11.1 INTRODUCTION

One of the broad policy goals of the Shoreline Management Act (SMA) [RCW 90.58] is the protection of the natural resources and the ecologic functions and processes of the shoreline. The Shoreline Master Program Guidelines [WAC 173-26], which guide local jurisdictions as to how to implement the principals of the SMA, establish the concept of obtaining *no net loss* of shoreline function as the means of accomplishing the broad SMA policy goal of protection. The concept of *no net loss* is to maintain the existing condition of shoreline ecological function as the SMP is implemented by preventing new impacts from occurring. No net loss is also addressed by providing restoration activities to address existing impacts to shoreline function. The purpose of this summary report addendum is to provide a synopsis of how the City has, through the SMP update process, met the no net loss requirement identified in the guidelines.

11.2 CITY OF POULSBO'S SHORELINE MASTER PROGRAM UPDATE TIMELINE

The Shoreline Master Program Update process is divided into phases and tasks. A brief outline of these phases and tasks, as well as when each task was completed by the City, is as follows:

Comment [CM1]: Keri, can you double check me on this and help me out with the highlighted elements? Thanks much.

Phase 1: Preliminary Shoreline Jurisdiction and Public Participation Plan

- Task 1.1: Identify preliminary shoreline jurisdiction
- Task 1.2: Develop public participation plan
- Task 1.3: Demonstrate how Phase 1 complies with Guidelines: Checklist

Completed XXXX

Phase 2: Shoreline Inventory, Analysis and Characterization

- Task 2.1: Complete shoreline inventory
- Task 2.2: Conduct shoreline analysis
 - Task 2.2.1: Characterize ecosystem-wide processes
 - Task 2.2.2: Characterize shoreline functions
 - Task 2.2.3: Conduct shoreline use analysis and identify public access opportunities
- Task 2.3: Prepare inventory and characterization report
- Task 2.4: Demonstrate how Phase 2 complies with Guidelines: Checklist

Completed June 2010

Phase 3: Environment Designation, Policy and Regulation Development, Cumulative Impacts Analysis

- Task 3.1: Conduct community visioning process
- Task 3.2: General goals, policies, and regulations
- Task 3.3: Develop environment designations
- Task 3.4: Develop policies, regulations and standards for shoreline uses and modifications
- Task 3.5: Develop administrative provisions
- Task 3.6: Prepare cumulative impact analysis
- Task 3.7: Demonstrate how Phase 3 complies with Guidelines: Checklist

Completed November 2010; Second SMP draft completed December 2010

Phase 4: Restoration Plan, Revisit Phase 3 products – *To be completed June 2011*

Task 4.1: Prepare restoration plan **Completed March 2011**

Task 4.2: Revisit draft environment designations, policies, and regulations and finalize maps

Task 4.3: Demonstrate how no net loss (NNL) is achieved – *In process*

Task 4.4: Demonstrate how Phase 4 complies with Guidelines: Checklist

Phase 5: Local Approval – *To be completed February 2012*

Phase 6: State Approval – *To be completed XXXX*

11.3 SYNOPSIS OF HOW NO NET LOSS IS ACHIEVED THROUGH THE SMP UPDATE PROCESS

During the SMP update process, local jurisdictions accomplish the goal of achieving no net loss by generating multiple supporting documents in addition to the draft SMP document. The first supporting document generated identifies all of the available data related to the jurisdiction's shorelines and describes existing shoreline processes and functions within the jurisdiction. This document is called the Inventory and Characterization and establishes a baseline of shoreline function for the City. The baseline identified in the Inventory and Characterization document serves as a boundary for determining if no net loss is occurring within the jurisdiction. If analysis indicates that existing shoreline function has or will become worse, net loss has occurred. However, if analysis indicates that existing shoreline function has remained the same, or improved, the jurisdiction has accomplished the goal of no net loss.

After establishing a baseline for shoreline function within the inventory and characterization document, the jurisdiction develops Shoreline Master Program environmental designations, policies and regulations, including mitigation and enforcement requirements, designed to protect the shoreline ecologic functions identified in the Inventory and Characterization. For example, environmental designations are assigned based upon existing shoreline function and land use. Areas that are relative untouched are generally given a more restrictive designation whereas areas that have large amounts of shoreline development are given somewhat less restrictive designations. This serves to focus development in areas that have already experienced an impact to shoreline function and maintain shoreline function in the relatively intact areas of shoreline function. Policies and regulations are also developed based upon the existing data regarding what is necessary to protect shoreline function as well as the needs of the local jurisdiction.

Once a draft SMP is completed, another supporting document, known as the cumulative impacts analysis, is generated to ascertain whether or not the drafted SMP will accomplish no net loss of shoreline ecological function. As noted in the inventory and characterization description above, the goal of this analysis is to determine if the draft SMP will result in further impacts or in an improvement to the baseline. If the cumulative impacts analysis determines that net loss of shoreline function will occur, the City must revise the draft SMP in order to obtain the goal of no net loss of ecologic function. If the cumulative impacts analysis determines that the draft SMP will result in no net loss of shoreline function, the SMP may proceed through the remaining update phases, including review by the City's Planning Commission, City Council, and the Department of Ecology.

In some cases, the draft SMP regulations may not be enough to ensure no net loss of ecologic function. Impacts to shoreline function may still occur due to ongoing degradation from existing development, shoreline violations and similar issues. In order to address these issues, the local jurisdiction must generate a restoration plan. This supporting document builds upon the analysis completed during the characterization process by identifying areas that are best suited for restoration as well as possible restoration projects. Ideally, if the jurisdiction is able to complete the actions identified in the restoration plan, it will result in higher amounts of ecological function.

How no net loss is achieved through the shoreline update process is summarized in the following figure:

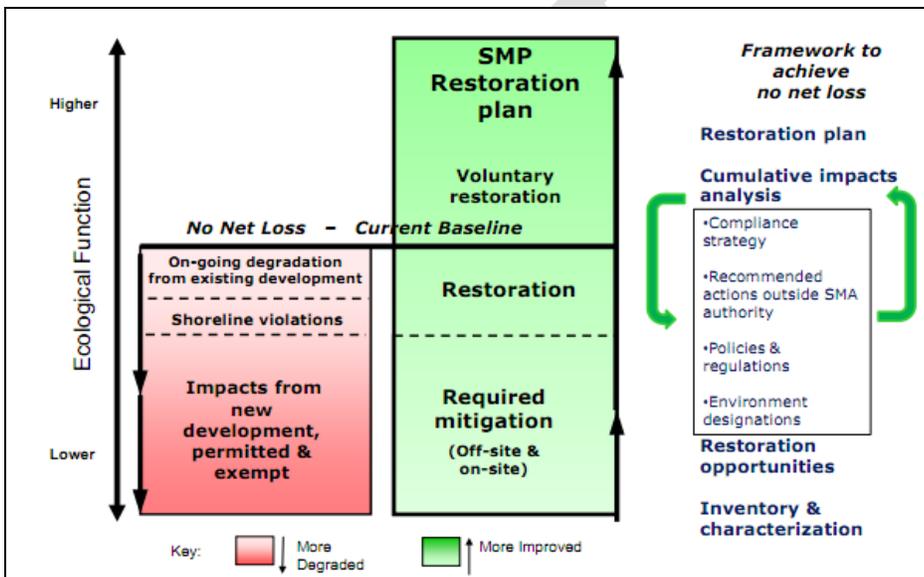


Figure XX: How no net loss of ecological function is achieved utilizing the SMP process (Figure Source: Washington State Department of Ecology website: <http://www.ecy.wa.gov/programs/sea/shorelines/smp/handbook/Chapter4.pdf>)

11.4 RESULTS OF THE SUPPORTING DOCUMENTS GENERATED DURING THE CITY OF POULSBO SMP UPDATE PROCESS

11.4.1 Inventory and Characterization

The Inventory and Characterization that served to establish the baseline condition of the City's 3.93 miles of marine and estuary shoreline was completed in June 2010 (Grette Associates 2010a). During the characterization process, five shoreline reaches with varying levels of shoreline function were identified. These reaches were primarily based upon existing planning

segments that were utilized by the City of Poulsbo Planning Department. As a result of this analysis process it was determined that two of the five reaches (MR1 and MR5) were primarily single family residential with low shoreline function that had been impacted by either adjacent roadway (MR1) or residential yard space (MR5). One of the reaches (MR3) contained single and multifamily residential but the shoreline function was more intact than found in the other residential reaches. The shoreline function of the reach was assigned a medium rating. One of the reaches (MR2) was noted to be more impacted by commercial development and impervious surfaces than any of the other reaches and was subsequently assigned a low shoreline function rating. Additionally, reach MR4 was determined to contain the most intact shoreline function within the City of Poulsbo and received a medium high shoreline function rating. Further summary information regarding the findings of the Inventory and Characterization process is also provided in Chapters 2 through 6 and the Chapter 9: Summary Matrix within this document.

The Inventory and Analysis document is available on the City of Poulsbo website at: <http://www.cityofpoulsbo.com/planning/shorelinemaps.htm>.

11.4.2 Cumulative Impacts Analysis

As concluded in Chapter 10 of this document, the provisions of the draft SMP have been designed to maintain existing shoreline function, produce functional lift where feasible, and result in no net loss of ecological function as required by WAC 173-26-186(8)(d).

11.4.3 Restoration plan

During the Inventory and Characterization task, the best areas for future development and restoration were identified. One of the City's primary ongoing restoration efforts is the continued improvement of habitat and public access within Fish Park on the Dogfish Creek estuary. However, as noted in both the Inventory and Characterization document and the Restoration plan, the City of Poulsbo is a largely built environment and re-establishment of pre-development conditions is not necessarily feasible or desirable. As such, the City is primarily focused on the incremental benefits of smaller-scale actions, such as shoreline revegetation or structure removal on the scale of individual residential lots.

The Restoration Plan is available on the City of Poulsbo website at: http://www.cityofpoulsbo.com/planning/documents/draft_smp_restoration_plan_3_16_11.pdf

11.5 SUPPORTING DOCUMENTS AND SMP UPDATE

11.5.1 Environmental Designations

The environmental designations were developed based on review of the existing shoreline function and land use patterns as identified during the Inventory and Characterization task and goals of the community as identified throughout the SMP update process. For example, areas primarily identified as commercial with a low amount of existing shoreline function during the analysis process were assigned a High Intensity designation and areas identified as generally having intact shoreline function were assigned a Natural designation. The City chose not to assign shoreline environmental designations per reach extent, but rather to assign the

designations based upon the shoreline functions and land use of parcels within the reach. Although the method of dividing a reach in different shoreline designations is generally a greater effort than assigning a single designation per reach, breaking the reaches into smaller designation areas allowed the City avoid and/or reduce impacts to more intact habitat areas within a reach thereby allowing the City to achieve no net loss of ecologic function.

The six environmental designations with the City of Poulsbo are as follows:

High intensity The purpose of the High Intensity environment is to provide for areas of moderate commercial and mixed commercial-residential development. The overarching goal for this designation is to provide for optimum shoreline use in areas that are presently developed with commercial uses while also protecting shoreline ecological function.

Natural The purpose of the Natural environment is to protect and restore environment shoreline areas that are relatively free of human influence or that include intact or minimally degraded shoreline functions that are sensitive to proposed impact from human use and development.

Shoreline Residential The purpose of the Shoreline Residential environment is to accommodate residential development consistent with the SMP polices, to protect ecological function and natural habitat, and promote restoration where feasible and provide appropriate public physical access and recreational uses. This designation is divided into two sub-designations as follows:

Shoreline Residential 1 This designation includes areas of shorelands waterward of the established shoreline buffer, and/or on the water side of “buffer interruptions” such as major roads. The goal of these areas is to preserve the natural environment as far as possible. In addition, new development and enlargement of existing development within buffer areas is limited to reasonable use.

Shoreline Residential 2 This designation includes areas outside the establish shoreline buffer and/or on the upland side of interrupted buffers such as major roads. New residential development is permitted based on existing regulations but is also emphasized on transitioning from the preservation of the Shoreline Residential 1 designation to the residential development outside of the shoreline jurisdiction.

Urban Conservancy The purpose of the Urban Conservancy environment is to achieve sustainable resource use by preserving the natural landforms and shoreline vegetation as much as possible, while promoting public access, both view and physical, and recreation.

Aquatic The Aquatic designation includes all lands waterward of the Ordinary High Water Mark, including private and public tidelands, state submerged lands, and areas designated as critical saltwater habitat.

Complete descriptions of the shoreline environment designations are available on the City of Poulsbo web-site located at:
[http://www.cityofpoulsbo.com/planning/documents/final second draft policies.pdf](http://www.cityofpoulsbo.com/planning/documents/final_second_draft_policies.pdf).

11.5.2 Policies

The policies addressed with the City of Poulsbo SMP were organized into the following headings:

- A. Policies in Other Documents and Ordinances (Such as portions of the 2009 City of Poulsbo Comprehensive Plan)
- B. Shoreline Environment Designations and Management Policies
- C. Shoreline Habitat and Critical Areas
- D. Water Quality
- E. Public Access, Public Views and Recreation
- F. Shoreline Uses and Activities
- G. Archeological and Historical Resources

The Environment Designation policies are applied to specific shoreline areas to guide the use and development of these areas, according to existing and future conditions and provide a preference for water dependent and water oriented use as well as other preferred SMA uses such as single family residential along the shoreline. The Habitat and Water policies apply more generally to issues such as shoreline critical areas, water quality, vegetation, and shoreline modifications such as armoring, dredging and filling. The Public Access and Recreation policies address provision of public access and enjoyment opportunities (including visual access) along the shorelines and in the waters of Liberty Bay. The Uses and Activities policies are concerned with the general distribution and location of shoreline uses, allowable activities, requirements for future placement of infrastructure such as roads and utilities, and maintenance of shoreline character. Although no listed archeological or historical resource sites have been identified on the City's shorelines, the Archeological and Historical resources policies provide guidance in case such sites are identified in the future.

The complete document of Shoreline Master Program Policies is available on the City of Poulsbo web-site located at:
http://www.cityofpoulsbo.com/planning/documents/final_second_draft_policies.pdf.

11.5.3 Regulations

The City of Poulsbo prepared first draft of shoreline regulations in October 2010. Based on feedback from the Department of Ecology and other reviewers, the Planning Department has made a number of revisions and additions to the first draft.

These regulations provide protection of shoreline function and promote the goal of achieving no net loss including by not limited to the following ways:

- Requiring that all shoreline uses and activities shall be located and designed in a manner that ensures no net loss of shoreline ecological functions and minimizes adverse impacts to natural shoreline resources and wildlife habitat, including fish and aquatic habitat [PMC 16.08.120 (A)]. Thus, requiring that all future shoreline development is carried out in a manner that limits further degradation of the shoreline environment.

- Incorporating the protection of Critical Areas within the shoreline jurisdiction [PMC 16.08.060].
- Defining mitigation sequencing requirements including avoiding impacts where possible and minimizing and mitigating for impacts that cannot be avoided to address no net loss policies [PMC 16.08.140].
- Requiring consideration of non-structural and soft shoreline stabilization methods prior to hard shoreline stabilization [PMC 16.08.390]
- Requiring the establishment of native vegetation along the shoreline [PMC 16.08.320 (B)]

The draft SMP regulations are available on-line for review at http://www.cityofpoulsbo.com/planning/planning_shoreline.htm.

11.6 NO NET LOSS CONCLUSION

The proposed SMP represents environmental designations, policies, and use regulations that are not only consistent with the baseline ecologic function and land use but are also consistent with the findings of the supporting documents as well as the City's current zoning and comprehensive planning documents. It also represents the comments and feedback that have been received by the citizens of Poulsbo during the public participation and community visioning phases of the update.

Based upon the supporting documents and the proposed SMP, it is anticipated that no net loss of shoreline ecological function will occur within the City of Poulsbo as the SMP is implemented over time.

Note: Text may be modified to address any required changes to the draft SMP if required by the Washington State Department of Ecology.

12 REFERENCES

- Battelle Marine Sciences Laboratory (BMSL). 2009. East Kitsap County Nearshore Habitat Assessment and Restoration Prioritization Framework. Prepared for Kitsap County, Department of Community Development. April 2009.
- Ecology. 2010. SMP Handbook (Draft) - Chapter 17 Cumulative Impacts Analysis. Draft dated May 27, 2010. Available on-line at:
<http://www.ecy.wa.gov/programs/sea/shorelines/smp/handbook/index.html>.
- Ecology. 2010. SMP Handbook (Draft) - Chapter 4 No Net Loss of Shoreline Ecological Functions. Draft dated June 22, 2010. Available on-line at:
<http://www.ecy.wa.gov/programs/sea/shorelines/smp/handbook/index.html>.
- Grette Associates, 2010a City of Poulsbo: Shoreline Master Program Update: Inventory and Characterization. June 2010. Available on-line at:
http://www.cityofpoulsbo.com/planning/planning_shoreline.htm.
- Grette Associates, 2010b City of Poulsbo: Shoreline Master Program Update: Cumulative Impacts Analysis. November 2010. Available on-line at:
http://www.cityofpoulsbo.com/planning/documents/draft_smp_cia_11_24_10.pdf
- Grette Associates, 2011 City of Poulsbo: Shoreline Master Program Update: Restoration Plan. March 2011. Available on-line at:
http://www.cityofpoulsbo.com/planning/documents/draft_smp_restoration_plan_3_16_11.pdf

**CITY OF POULSBO
SHORELINE MASTER PROGRAM UPDATE**

CUMULATIVE IMPACTS ANALYSIS EXHIBITS