

CITY OF POULSBO SHORELINE MASTER PROGRAM UPDATE

RESTORATION PLAN - DRAFT

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MARCH 2011



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1 INTRODUCTION

This report is intended to meet the requirements of Restoration Planning component of the City of Poulsbo's (City's) Shoreline Master Program (SMP) update. It builds upon other elements, draft and final, of the City's SMP update completed to date, including the draft Shoreline Inventory (November 2009) (City of Poulsbo 2009 *as incorporated into* Grette Associates 2010a), the Shoreline Inventory and Characterization (June 2010) (Grette Associates 2010a), and the draft Cumulative Impacts Analysis (November 2010) (Grette Associates 2010b). The report is organized in such a way that it clearly follows Ecology's guidance for Restoration Planning, based on WAC 173-26-201 (2) F, which is presented below in *italics* for reference:

[WAC 173-26-201 (2)] F. Shoreline restoration planning. Consistent with principle WAC 173-26-186 (8)(c), master programs shall include goals, policies and actions for restoration of impaired shoreline ecological functions. These master program provisions should be designed to achieve overall improvements in shoreline ecological functions over time, when compared to the status upon adoption of the master program. The approach to restoration planning may vary significantly among local jurisdictions, depending on:

- *The size of the jurisdiction;*
- *The extent and condition of shorelines in the jurisdiction;*
- *The availability of grants, volunteer programs or other tools for restoration; and*
- *The nature of the ecological functions to be addressed by restoration planning.*

Master program restoration plans shall consider and address the following subjects:

- (i) Identify degraded areas, impaired ecological functions, and sites with potential for ecological restoration;*
- (ii) Establish overall goals and priorities for restoration of degraded areas and impaired ecological functions;*
- (iii) Identify existing and ongoing projects and programs that are currently being implemented, or are reasonably assured of being implemented (based on an evaluation of funding likely in the foreseeable future), which are designed to contribute to local restoration goals;*
- (iv) Identify additional projects and programs needed to achieve local restoration goals, and implementation strategies including identifying prospective funding sources for those projects and programs;*
- (v) Identify timelines and benchmarks for implementing restoration projects and programs and achieving local restoration goals;*
- (vi) Provide for mechanisms or strategies to ensure that restoration projects and programs will be implemented according to plans and to appropriately review the effectiveness of the projects and programs in meeting the overall restoration goals.*

1.1 RESTORATION PLANNING AND THE BUILT ENVIRONMENT

It is important to approach SMP-mandated Restoration Planning using the definitions for restoration provided for that purpose in the WAC, as they are different from definitions that exist in other regulatory realms (e.g., critical areas regulations, federal Clean Water Act). WAC 173-026-020 (27) reads: *"Restore," "restoration" or "ecological restoration" means the reestablishment or upgrading of impaired ecological shoreline processes or functions. This may be accomplished through measures including, but not limited to, revegetation, removal of intrusive shoreline structures and removal or treatment of toxic materials. Restoration does not imply a requirement for returning the shoreline area to aboriginal or pre-European settlement conditions.*

Under this definition, restoration includes actions which improve degraded shoreline processes or functions, and does not require a complete reversal to pre-development conditions. This is important, particularly in largely built environments such as the City of Poulsbo where reestablishment of pre-development processes and functions may not be feasible or desirable. There are substantial constraints in terms of property ownership and development conditions for much of Poulsbo's shorelines, particularly in the downtown area. In this case, the incremental benefits of smaller-scale actions, such as shoreline revegetation or structure removal on the scale of individual residential lots, must be acknowledged.

This being said, opportunity for larger-scale restoration action does exist, particularly in the City's many shoreline parks and other public shoreline facilities. The City has a demonstrated commitment to incorporating restoration into its public facilities, from pocket access areas such as street ends to large parks. The prime example of this is the development of Fish Park which has dramatically improved habitat conditions and functions in the Dogfish Creek estuary. On-going efforts there, guided by the park's Master Plan (Makers et al., 2004), are resulting in continual benefits to both the environment and the local community (Section 3.1).

The City has also embraced a long-range vision for its urban trail system, which includes both shoreline and water-based trails (City of Poulsbo 2010). The community has identified shoreline trails linking parks and public spaces all around Liberty Bay as one of its highest trail priorities in the City, and City staff are currently in the early phases of implementing one of these trails (Section 3.2). As envisioned, much of this trail work will require property acquisition, establishment of public easements along City shorelines, and/or development of boardwalks in public easements over state-owned tidelands. Over time, an expansion of the City's trail system will provide both opportunities for conservation of existing functioning shorelines and for restoration of functions in more impaired areas.

The approach of this document is to consider all previously identified restoration opportunities within the context of both the built environment and the available science informing shoreline processes and functions, building directly on the Inventory and Characterization (Grette Associates 2010a) and draft Cumulative Impacts Analysis (Grette Associates 2010b) already prepared as part of this SMP update. This document continues the use of shoreline reaches as descriptors for restoration opportunity (Table 1).

Table 1. Shoreline inventory reaches in the City of Poulsbo.

Designated Reach (Planning Segment)	Description	Approx. Length (ft)	Approx. Length (mi)
Marine Reach 1 (Fjord Drive)	This area extends from the south end of the Marine Science Center property to the end of the Poulsbo city/UGA boundary. The Fjord Drive shoreline primarily consists of single-family residential development. Two marinas (Poulsbo Yacht Club and Liberty Bay Marina) are also located in this segment.	5,560	1.05
Marine Reach 2 (Downtown Core)	This area corresponds to the City's Downtown Core (DC) zoning overlay area, and includes the City's historic downtown waterfront, which is primarily commercial. The Poulsbo Marina is also located in this segment. For the shoreline, the area evaluated lies generally between the south end of the American Legion waterfront park and the Marine Science Center.	2,245	0.43
Marine Reach 3 (Front Street)	This area extends from American Legion park north to Lindvig Way on the eastern shoreline of the bay. The Front Street shoreline is characterized by single-family residential development, and limited commercial development (primarily near the head of the bay).	4,220	0.84
Marine Reach 4 (Estuary)	This area, lying north of Lindvig Way, includes the tidally-influenced mouth of Dogfish Creek at the head of the bay, and associated stream and wetland areas. This area contains a large portion of Fish Park, single-family residential development, and limited commercial development near the intersection of Bond Rd and Lindvig Way.	3,306*	0.63*
Marine Reach 5 (Western Shoreline)	This area extends from Lindvig Way south to the end of the Poulsbo City/UGA boundary. The western shoreline has single-family and multi-family residential development, as well as some limited commercial and assisted living uses.	5,375	1.02
	Total Jurisdictional Shoreline	20,704*	3.92*

* The length of MR4 was revised in March 2011 from previous data in the draft Shoreline Inventory, based on a more detailed measurement of shoreline within and adjacent to Fish Park. This change does not alter analyses or conclusion in other draft SMP documents. Upon finalization, SMP documents will be revised as needed to reflect this change

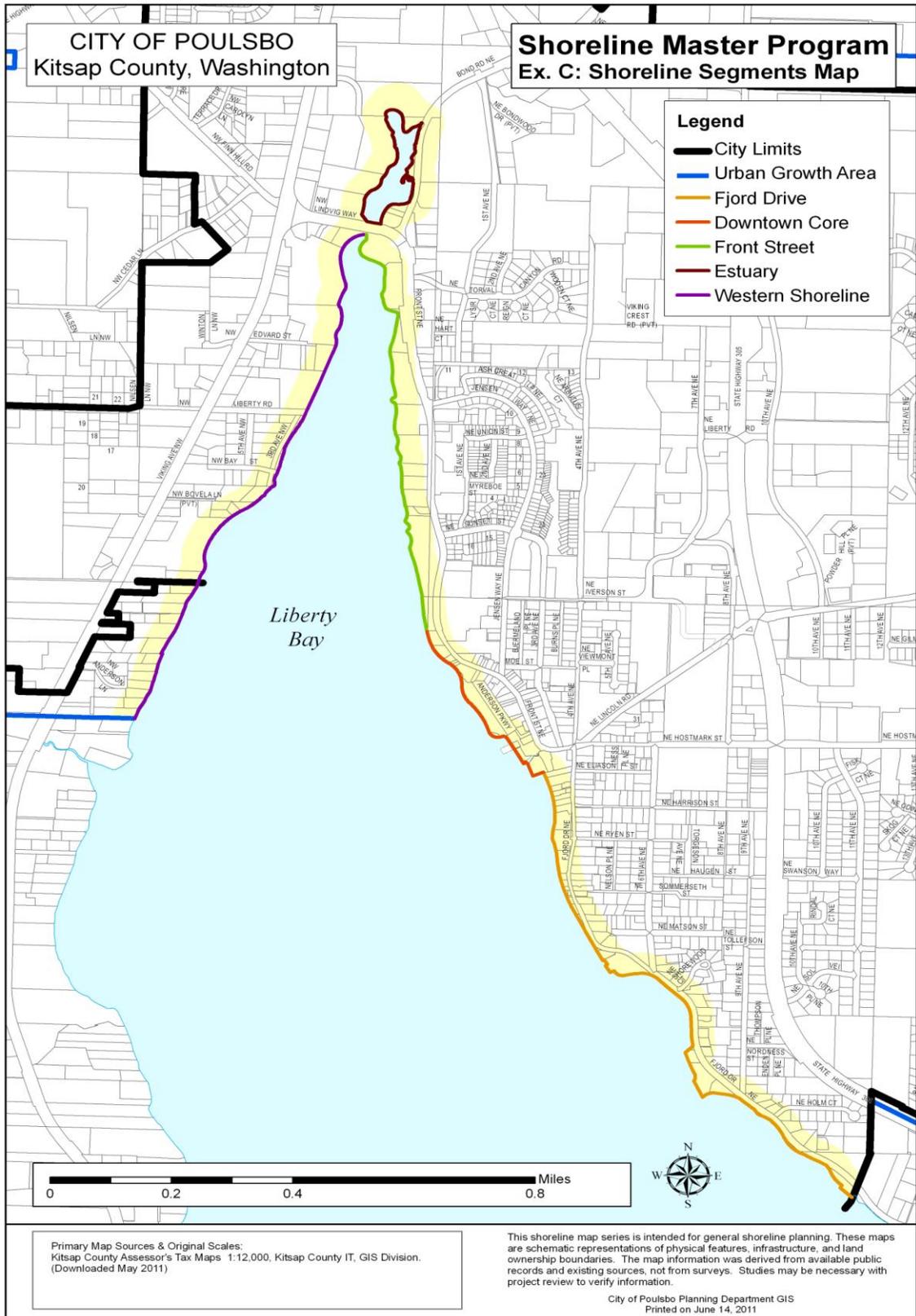
1.2 REPORT ORGANIZATION

This document is organized as follows: First, the overall goals and priorities as described earlier in the SMP process are described (Section 2). This is followed by a detailed discussion of the ongoing or currently funded restoration and conservation activities within City shorelines, namely Fish Park and the Liberty Bay Waterfront Trail. Other areas identified as having potential for restoration under the Inventory and Characterization (Grette Associates 2010a) or draft Cumulative Impacts Analysis (Grette Associates 2010b), or identified by City staff, are summarized in Section 4, along with measures to address them.

Because this document is not explicitly organized around the six required subjects identified under WAC 173-26-201 (2) F (see page 1), Table 2 provides a summary of how this restoration maintains consistency with those requirements.

Table 2. Consistency with WAC 173-26-201 (2) F.

Restoration Plan Requirement	How and where addressed
(i) Identify degraded areas, impaired ecological functions, and sites with potential for ecological restoration;	For Fish Park and the Liberty Bay Waterfront Trail, described in Section 3. For all others summarized and updated from Inventory and Characterization (Grette Associates 2010a) in Section 4 (Table 3).
(ii) Establish overall goals and priorities for restoration of degraded areas and impaired ecological functions;	Draft being developed under SMP process, provided in Section 2.
(iii) Identify existing and ongoing projects and programs that are currently being implemented, or are reasonably assured of being implemented (based on an evaluation of funding likely in the foreseeable future), which are designed to contribute to local restoration goals;	Applies only to Fish Park and Liberty Bay Waterfront Trail activities as described in Section 3.
(iv) Identify additional projects and programs needed to achieve local restoration goals, and implementation strategies including identifying prospective funding sources for those projects and programs;	Summarized from Inventory and Characterization (Grette Associates 2010a), draft Cumulative Impacts Analysis (Grette Associates 2010b), and expanded upon in Section 4 (Table 3). Potential funding sources identified in Section 5 (Table 4).
(v) Identify timelines and benchmarks for implementing restoration projects and programs and achieving local restoration goals;	For Fish Park as described in Section 3 (limited available detail); other restoration opportunities are not yet well enough defined for detailed planning.
(vi) Provide for mechanisms or strategies to ensure that restoration projects and programs will be implemented according to plans and to appropriately review the effectiveness of the projects and programs in meeting the overall restoration goals.	For Fish Park and the Liberty Bay Waterfront Trail (Phase 1) as described in Section 3; other restoration opportunities are not yet well enough defined for detailed planning.



2 GOALS AND POLICIES

The following goals and policies are included in the City's draft SMP as of March 16, 2011.

Goals

- A. Protect unique shoreline ecological features and habitat that supports threatened species, and maintain and/or enhance their functions.
- B. Improve connectivity between City-owned shoreline habitat areas and other Natural-designated areas, and enhance such areas where feasible, to promote contiguous, functional areas of native habitat.
- C. Encourage good shoreline stewardship and voluntary habitat restoration efforts by homeowners and other shoreline property owners.

Policies

The following policies from the City's Comprehensive Plan are proposed for incorporation into the SMP:

Land Use Element

Policy LU-11.1

Implement regulations to manage storm water to a) protect human life and health; b) protect private and public property and infrastructure; c) protect resources such as shellfish beds, eelgrass beds, kelp, marine and freshwater habitat and other resources; d) prevent the contamination of sediments from urban runoff; and e) achieve standards for water and sediment quality by reducing and eventually eliminating harm from pollutant discharges.

Policy LU-11.2

Implement regulations that avoid, minimize, and mitigate erosion, sedimentation, and storm water runoff problems including stream and shoreline erosion, related to land clearing, grading, development and roads.

Policy NE-6.1

The City's Critical Areas Ordinance shall require vegetative buffers along surface waters to protect anadromous fish and wildlife habitat. New development shall be subject to buffers or resource management areas, as identified in the Critical Areas Ordinance and other applicable development standards.

Natural Environment Element

Policy NE-6.2

The City shall protect the natural habitat functions of listed or candidate Endangered Species. The City's Critical Areas Ordinance shall establish appropriate protection measures and procedures for habitat conservation.

Policy NE-6.3

The City shall continue acquiring appropriate land when it becomes available and affordable, primarily to preserve its function as fish and wildlife habitat. The Dogfish Creek estuary shall continue to be a priority habitat area for acquisition.

Policy NE-7.1

Protect shoreline ecological processes and functions through regulatory and non-regulatory means, including acquisition of key properties on the Liberty Bay estuary and shoreline; regulation of new development through the City's Shoreline Master Program; and incentives to encourage ecologically sound design.

Policy NE-7.2

Protect critical saltwater habitats in recognition of their importance to the marine ecosystem of Liberty Bay and Puget Sound. These habitats can provide critical reproduction, rearing and migratory nursery areas for fish, juvenile salmon, marine plants and animals. Habitats of special concern include kelp beds; eelgrass beds; spawning areas for herring, smelt and sand lance; juvenile salmonid migration corridors; rock sole spawning beds; rockfish settlement and nursery areas; and lingcod settlement and nursery areas.

Policy NE-7.3

The City shall, when revising its Shoreline Master Program, provide regulations to sustain shoreline ecological functions and natural resources, and to encourage and facilitate the restoration of existing impaired ecological functions.

Policy NE-7.4

The City will implement as appropriate, any remaining recommendations of the Kitsap County Health Department in its "City of Poulsbo Nonpoint Pollution Impacts to South Fork of Dogfish Creek Final Report 2002" not already implemented, to improve the surface water quality in SF Dogfish Creek and Liberty Bay.

Policy NE-7.5

The City will build on the data collected and conclusions derived from the Kitsap County Health Department's "City of Poulsbo Storm water Outfall Inventory and Illicit Discharge Detection and Elimination Program." Based on this assessment, the City will prioritize problem facilities and prepare a feasibility analysis and cost estimate to retrofit problem facilities.

Policy NE-7.6

Provisions that will reduce impacts to the shoreline through littoral processes (i.e. results on the shoreline through movement and interaction of wind, waves, currents, tides or sediments) due to shore hardening will be added to the City's Shoreline Master Program update to help prevent loss of additional intertidal substrate used by shellfish, herring, smelt, and candlefish.

Policy NE-7.7

Provisions to promote the use of community docks, shared over-water structures, and the use of grating or other materials on docks and marine structures to allow light passage, will be added to the City's Shoreline Master Program update.

Policy NE-7.8

Provisions to discourage “hard armoring” of the Liberty Bay shoreline will be added to the City’s Shoreline Master Program update, and natural vegetation protection and soft bulkheads techniques will be encouraged. It should be recognized, however, that historic and existing bulkheads in the City may need to be maintained, especially those necessary for roadways near the shoreline.

Policy NE-7.9

The City shall support and participate as appropriate, in shoreline restoration of identified sites within the city limits that would benefit from the removal of existing hard armoring bulkheads and restoring the vegetative connectivity of the nearshore environment of Liberty Bay.

Parks, Recreation and Open Space Element

Policy PRO-2.4

Design and manage city-owned open space and parks as beneficial places for local and migratory wildlife. Add wildlife habitat features such as birdhouses, bat boxes and water features to existing parks, and seek opportunities to add wildlife habitat features during the development of new parks. Maintain and enhance areas of layered and texturally diverse native vegetation to meet habitat needs.

3 EXISTING AND CURRENTLY PLANNED RESTORATION PROGRAMS

3.1 FISH PARK ON-GOING RESTORATION AND IMPROVEMENTS

Since the initial property acquisition in 2002, the City has focused the bulk of its restoration efforts at Fish Park on the Dogfish Creek estuary at the head of Liberty Bay. The park's shoreline includes the west side and top of the Dogfish Creek estuary, and includes 20.77 acres with approximately 0.63 miles of shoreline. The purpose of the park is to provide public access, passive recreation and habitat restoration. A number of substantial improvements have been made over the years pursuant to those uses. Improvements have generally been in accordance with the 2004 Fish Park Master Plan (Makers et al) with some changes based on updated City needs and opportunities (M. McCluskey, pers. comm.).

After the initial major actions, including replacing an underside culvert with the Lindvig Way bridge to restore the estuary's hydrology, the primary restoration activity with Fish Park has been and continues to be invasive species removal and native plant revegetation along the shoreline and upland areas. A dedicated volunteer group organized by the Fish Park Steering Committee meets monthly to remove invasive plants such as Himalayan blackberry and English ivy, and to install native vegetation acquired from sources such as the Kitsap Conservation District. Volunteers also assist with stewardship such as garbage clean-up and provide labor for activities such as trail construction. This allows the City to put limited restoration funding toward acquiring plants or other materials needed for restoration and public access efforts, and for providing interpretive signage to inform park users about ecological functions of the site.

3.1.1 Timeline, Benchmarks, and Funding

The 2011 parks budget includes funds for restoration (revegetation) and public access site improvements. Native plants have already been acquired for planting underneath the Lindvig Way bridge, along the existing path linking to the pedestrian easement through the north end of the Front Street shoreline segment.

The majority of work at Fish Park has been funded through local, state, and federal grants. Revegetation and restoration work will continue based upon the general guidance of the Fish Park Master Plan and coordination with the Fish Park Steering Committee as additional funds become available. There is no formalized plan or document which identifies timelines or benchmarks for on-going efforts. As the majority of shoreline work consists of on-going invasive species control and revegetation, the current level of planning and coordination is sufficient to meet the goals of restoring and maintaining shoreline vegetation communities in the park over time.

3.1.2 Implementation and Review Mechanisms

Continued implementation of the Fish Park Master Plan is subject to regulatory review. Where impacts could occur (e.g., development of the proposed educational center), regulatory mechanisms will ensure that appropriate mitigation is required and successfully implemented.

3.1.3 Fish Park Property Acquisition

The City is actively pursuing funding to acquire another property adjacent to the existing Fish Park, which would bring the majority of the Dogfish Creek estuary shoreline into Fish Park, with the exception of a small commercially-developed area immediately north of the east side the Lindvig Way bridge. If the additional property is acquired, Fish Park will include approximately 24 acres and 0.90 miles of shoreline (Figure 2).

If the City secures funding in the current grant cycle, the property will be acquired in the fall of 2011 and revegetation and habitat restoration, as well as site facility improvements, would be funded through 2013. The City has not formalized restoration plans for this parcel, but they are anticipated to include invasive species removal, revegetation, and development of access facilities, including a trail or boardwalk linking with the rest of the park. High-quality existing mature trees will be retained for habitat and buffer functions.

It is expected that this property will be acquired and restoration and site development will occur within a matter of years, dependent on funding. Once acquired, the City in coordination with the Fish Park Steering Committee will determine priority actions and incorporate them into the ongoing Fish Park restoration activities.

3.2 LIBERTY BAY WATERFRONT TRAIL PLANNING AND DESIGN

The City's Engineering Department is starting the design and permitting of the Liberty Bay Waterfront Trail, which will connect existing trails at American Legion Park and Fish Park in the Front Street planning segment (MR 3) (R. Farncomb, pers. comm.) (Figure 3). This proposed trail is consistent with a trail plan identified in the City's draft *Urban Paths of Poulsbo* report (City of Poulsbo 2010). The draft report also shows how subsequent trail connections which could connect existing parks and trails along the rest of City shorelines for pedestrian access around the entire Liberty Bay waterfront. (City of Poulsbo 2010. The community has identified the Liberty Bay Waterfront Trail as the highest-priority trail improvement in the City.

The trail is in the very early planning stage. As of this time, there are no specific design standards or other details beyond the proposed route as shown in Figure 3. Funding, primarily from a federal grant with additional City park and restoration funds, has been secured and will support planning and design anticipated through the end of 2012.

The trail will be subject to regulatory review which will ensure regulatory compliance, impact minimization, and mitigation for impacts associated with trail development. It is expected that the project will include invasive species removal, installation of native plants, and long-term vegetation maintenance through a combination of parks management and volunteer organizations, similar to the approach at Fish Park. It is not likely that restoration actions below ordinary high water would be incorporated into the trail project.

3.2.1 Timeline, Benchmarks, and Funding

Planning and design is funded and expected to continue through 2012. Specific timelines and benchmarks in planning, permitting, and construction/implementation may be established as a part of that process.

3.2.2 Implementation and Review Mechanisms

The primary restoration action anticipated as a part of the Liberty Bay Waterfront Trail work is vegetation improvement and long-term management in newly-developed trail areas. Where impacts occur as a result of trail construction, regulatory mechanisms will ensure that appropriate mitigation is required and successfully implemented. As specific opportunities and plans for restoration of native vegetation associated with trail development are determined, the City may choose to formalize these in a Vegetation Management Plan or similar document which outlines the goals and action plan to implement and maintain any improvements.

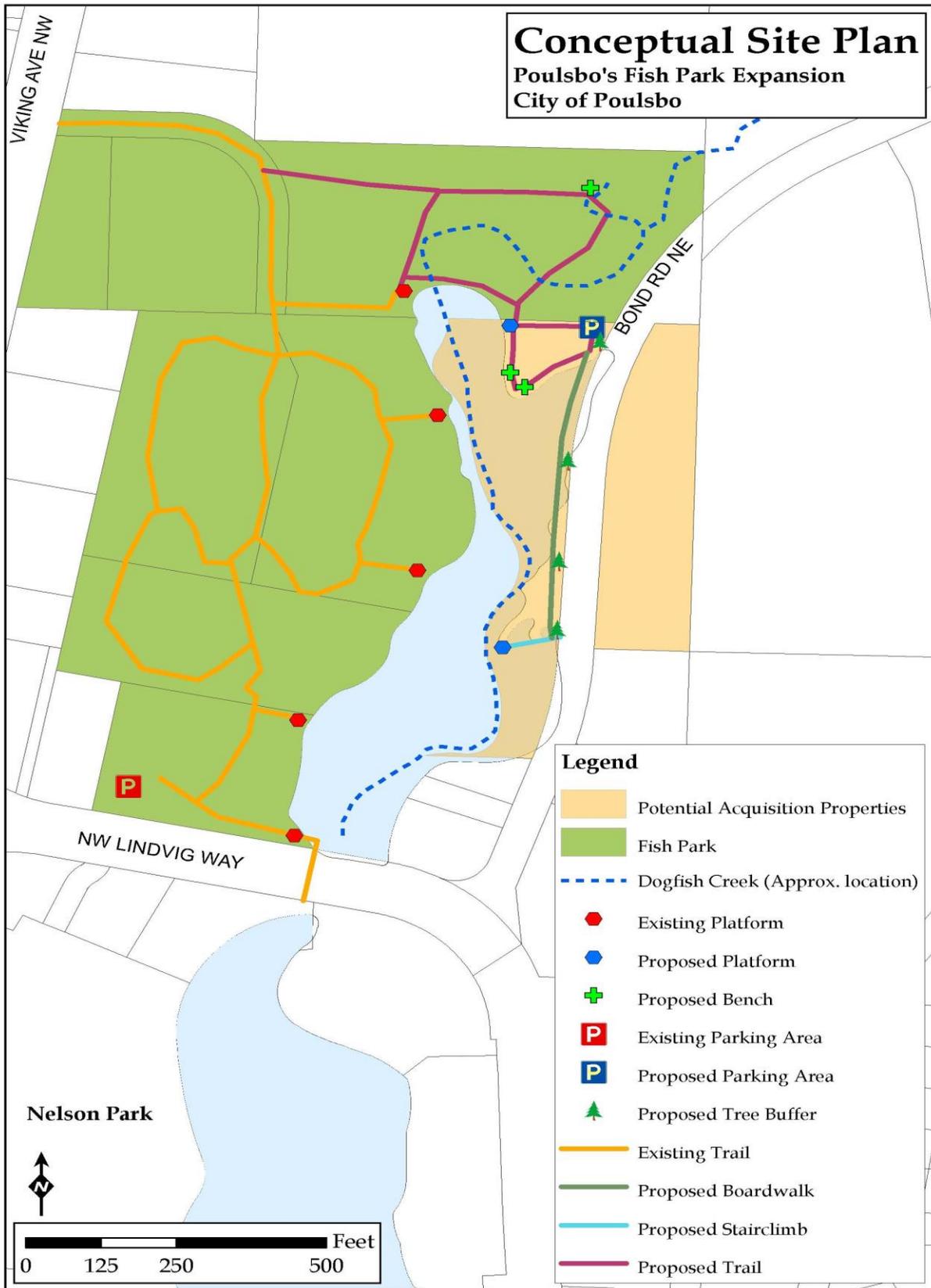


Figure 1. Fish Park expansion conceptual site plan.



Figure 2. Liberty Bay Waterfront Trail conceptual plan.

4 ADDITIONAL RESTORATION OPPORTUNITIES

Both the Inventory and Analysis (Grette Associates 2010a) and draft Cumulative Impacts Analysis (Grette Associates 2010) describe other general and specific restoration opportunities within the City of Poulsbo, in addition to the ongoing (Fish Park) and planned (Liberty Bay Waterfront Trail) activities discussed previously (Section 3). City staff (Parks and Public Works) have identified additional opportunities that are planned or prioritized for the foreseeable future (M. McCluskey and R. Farncomb, pers. comm.). Currently, there are no specific plans in place to fund or implement any of these activities apart from those described in Section 3. This list should not be considered to represent all restoration potential within the City, but does reflect a thorough review of those documented opportunities gathered during the SMP process.

Restoration opportunities, as identified earlier in the SMP process, are described in Table 3. This table is organized geographically by shoreline reach. It also includes a column for special considerations, such as property ownership issues or that an area has been identified as high priority for restoration or conservation actions. For consistency, both Fish Park and the Liberty Bay Waterfront Trail are included in this table, but not at the level of detail provided in Section 3.

It is important to note that the draft Cumulative Impacts Analysis for the SMP identifies limited potential for reasonably foreseeable development within the shorelines, and concludes that no net-loss of function would result from SMP adoption. Because that conclusion is not dependent on the sum benefit of all of the restoration actions previously identified, it is recommended that the City use the information within this document to identify or prioritize restoration efforts as opportunities for funding arise. In some cases, the City may be able to achieve a restoration action by coordinating it as mitigation for another action. For example, suggesting removal of abandoned pilings in conjunction with an upland shoreline development project is one scenario in which this may be possible. This approach of coordinating restoration actions with development in other locations may be a good way for the City to accomplish some of these activities in a limited funding environment.

As plans for implementing restoration actions are developed, either as actions in and of themselves or as mitigation for impacts associated with development or redevelopment, timelines and benchmarks for implementation will be developed. Project monitoring would be a requirement for any action which is undertaken as mitigation for development impacts. For projects which are implemented solely as restoration actions, the City should ensure that appropriate monitoring is conducted to demonstrate that the actions have been effective. However, detailed monitoring plans and programs may not be appropriate for all site restoration. In the case of ongoing invasive species removal and revegetation actions, continued coordination with volunteer groups will be continue to be invaluable, and could be supplemented with regular documentation of both effort and outcome. In some cases, such as removal of creosote pilings, monitoring may not be appropriate at all.

Table 3. Shoreline restoration opportunities in the City of Poulsbo.

Type	Location	Specific Description	Special Considerations	Restoration Opportunity ¹	Improvement to degraded condition/impaired function		
					Hydrologic	Vegetation	Habitat
MR 1 (Fjord Drive) Existing Condition							
Existing development within this reach is primarily single family residential.							
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.							
Specific	Multiple locations within reach	Four groupings of 1 to 12 abandoned wood and/or creosote pilings exist within the reach (Shoreline Inventory and Analysis Exhibit S).	Private property ownership limits non-voluntary actions. There may be opportunity to implement as mitigation for other projects.	Remove abandoned pilings.	Yes (water quality)		Yes (nearshore)
Specific	North of S 9 th Avenue and Fjord Drive	Wood scrap on the beach and old unused dock infrastructure (Shoreline Inventory and Analysis Exhibit S).	Private property ownership limits non-voluntary actions. There may be opportunity to implement as mitigation for other projects.	Removal of identified wood scraps/old dock within this reach (Exhibit S of the Inventory and Characterization document).	Yes (water quality)		Yes (beach, nearshore)
Specific	North of S 6 th Avenue and Fjord Drive	Multiple areas of soil contamination exist in this area (Shoreline Inventory and Analysis Exhibit S).	Private property ownership limits non-voluntary actions.	Address documented soil contamination within this reach (Exhibit S of the Inventory and Characterization document).	Yes (water quality)		
General	Shoreline residences (including those not adjacent to the water)	Residential landscaping practices may influence water quality through runoff, even for residences on the east side of Fjord Drive.	Private property ownership limits non-voluntary restoration opportunities.	Promote yard care techniques that are protective of water quality to the residents of this reach	Yes (water quality)		

Type	Location	Specific Description	Special Considerations	Restoration Opportunity ¹	Improvement to degraded condition/impaired function		
					Hydrologic	Vegetation	Habitat
Specific	Fjord Drive and 6 th Avenue (Poulsbo Yacht Club pedestrian path easement)	Existing City street end where public access should eventually be improved (M. McCluskey, pers. comm.) (Shoreline Inventory and Analysis Exhibit Q, point 14).	Identified by Parks as a priority for access improvement.	Invasive species removal and native plant revegetation would be incorporated into any planned access improvements. There is armoring at the site which could be evaluated for modification for habitat improvement.		Yes (shoreline vegetation)	Yes (shoreline and upper intertidal)
MR 2 (Downtown Core) Existing Condition							
Existing development within this reach is primarily commercial.							
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.							
General	Entire shoreline	Generally developed nature of the downtown shoreline (Shoreline Inventory and Analysis, draft Cumulative Impacts Analysis).	Implemented as part of redevelopment rather than individual projects or actions.	Incremental improvements in upland areas may be achieved through reducing impervious surfaces and utilizing other low impact development standards as applicable as redevelopment occurs.	Yes (water quality)		
Specific	North of Liberty Bay Waterfront Park	1 to 5 abandoned wood and/or creosote pilings exist within the reach (Shoreline Inventory and Analysis Exhibit S).	There may be opportunity to implement as mitigation for other projects.	Remove abandoned pilings	Yes (water quality)		Yes (nearshore)

Type	Location	Specific Description	Special Considerations	Restoration Opportunity ¹	Improvement to degraded condition/impaired function		
					Hydrologic	Vegetation	Habitat
Specific	Shoreline or in-water boardwalk between Liberty Bay and American Legion Parks	The boardwalk provides great shoreline viewing opportunities, but is constructed with treated wood and shades the nearshore (Shoreline Inventory and Analysis, draft Cumulative Impacts Analysis).	There may be opportunity to make improvements as mitigation for other projects.	Solid wood decking can be replaced with grated material to reduce intertidal shading. Treated wood pilings could be replaced with alternative materials (e.g., steel) to improve water quality.	Yes (water quality).		Yes (reduce shading).
Specific	Liberty Bay Waterfront Park	Public boat launch where access should eventually be improved (M. McCluskey, pers. comm.) (Shoreline Inventory and Analysis Exhibit Q, area 10)	Identified by Parks as a priority for access improvement. Could maximize opportunity through volunteer groups similarly to on-going efforts at Fish Park.	Invasive species removal and native plant revegetation would be incorporated into any planned access improvements.		Yes (remove invasives, plant natives)	

Type	Location	Specific Description	Special Considerations	Restoration Opportunity ¹	Improvement to degraded condition/impaired function		
					Hydrologic	Vegetation	Habitat
MR 3 (Front Street) Existing Condition							
Existing development within this reach is primarily single-family and multifamily residential as well as a small area of commercial development.							
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 than is found elsewhere in the jurisdiction.							
Specific	North end of MR in commercial area south of Lindvig Way bridge	A large number of abandoned pilings was identified in this area as part of the East Kitsap Nearshore Assessment (BMSL 2009) (Shoreline Inventory and Characterization, Exhibit S).	Some pilings may have been double-counted with those in MR 4 or have been removed. Private property ownership limits non-voluntary actions. There may be opportunity to implement as mitigation for other projects.	Remove any remaining abandoned pilings.	Yes (water quality)		Yes (nearshore)
Specific	North end of MR in commercial area south of Lindvig Way bridge	Wood scrap debris on the beach (Shoreline Inventory and Characterization, Exhibit S).	Private property ownership limits non-voluntary actions. There may be opportunity to implement as mitigation for other projects.	Remove wood scrap from upper beach.	Yes (water quality)		Yes (beach)
Specific	Shoreline between American Legion Park and commercial area in north MR 3	Alignment identified for Liberty Bay Waterfront Trail (see Section 3.2).	The trail is in very early design phases; plans will be developed through 2012.	Trail development along existing residential waterfront will incorporate invasive species removal and revegetation with native plants. Long-term, City trail management will help to conserve shoreline condition and function in this reach.		Yes (remove invasives, plant natives)	

Type	Location	Specific Description	Special Considerations	Restoration Opportunity ¹	Improvement to degraded condition/impaired function		
					Hydrologic	Vegetation	Habitat
MR 4 (Estuary) Existing Condition							
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.							
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 than is found elsewhere in the jurisdiction.							
General	Fish Park	Restoration and conservation in Fish Park has been on-going since 2003 (see Section 3.1).	Fish Park has been designed and managed to benefit both the natural environment and public access/recreation. On-going restoration and conservation will continue to balance multiple uses.	Restoration and conservation to date has resulted in a relatively high-function baseline for this area. On-going vegetation management will continue to improve and conserve these functions.		Yes (remove invasives, plant natives)	Yes (fringing vegetation benefits aquatic habitat areas)
Specific	East side of estuary	Property acquisition to expand Fish Park (see Section 3.1.3).	Acquisition is in planning phases while funding is secured.	Acquisition of this property will allow for similar vegetation management to the on-going actions within the existing Fish Park. It also will allow for conservation of existing relatively high quality condition and function, including mature conifers along and adjacent to the shoreline.	Yes (water quality)	Yes (remove invasives, plant natives)	Yes (fringing vegetation benefits aquatic habitat areas)
MR5 (Western Shoreline) Existing Condition							
Existing development within this reach includes single and multifamily residential, commercial, and public parks development.							
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.							

Type	Location	Specific Description	Special Considerations	Restoration Opportunity ¹	Improvement to degraded condition/impaired function		
					Hydrologic	Vegetation	Habitat
Specific	Multiple locations within reach	Three groupings of abandoned wood and/or creosote pilings exist within the reach (Shoreline Inventory and Analysis Exhibit S).	Private property ownership limits non-voluntary actions. There may be opportunity to implement as mitigation for other projects.	Remove abandoned pilings.	Yes (water quality)		Yes (nearshore)
Specific	South of NW Bovela Lane	Scrap metal debris documented on the beach (Shoreline Inventory and Characterization, Exhibit S).	Private property ownership limits non-voluntary actions. There may be opportunity to implement as mitigation for other projects.	Remove scrap metal from beach.	Yes (water quality)		Yes (beach)
Specific	Nelson Park	Access improvements through trail work (upland and shoreline) at Nelson Park. (Shoreline Inventory and Analysis Exhibit Q, point 5; Exhibit Z) (M. McCluskey, pers. comm.) The largest grouping of abandoned pilings in this reach (13 to 25) is at Nelson Park; removal is also a Parks priority (M. McCluskey, pers. comm.) (Shoreline Inventory and Characterization, Exhibit S)	Identified by Parks as a priority for access improvement (trails). Could maximize opportunity through volunteer groups similarly to on-going efforts at Fish Park. For pilings removal, there may be opportunity to implement as mitigation for other projects.	Incorporate invasive species removal and revegetation with native plant assemblage into trail and access improvement work, particularly along shoreline. Remove abandoned pilings.	Yes (water quality)	Yes (remove invasives, plant native)	Yes (nearshore)

Type	Location	Specific Description	Special Considerations	Restoration Opportunity ¹	Improvement to degraded condition/impaired function		
					Hydrologic	Vegetation	Habitat
Specific	Behind restaurant south of Lindvig Way bridge (JRO pedestrian path easement)	Public easement where access improvements should be made (M. McCluskey, pers. comm.) (Shoreline Inventory and Analysis Exhibit Q, point 6).	Identified by Parks as a priority for access improvement.	Invasive species removal and native plant revegetation would be incorporated into any planned access improvements.		Yes (remove invasives, plant native)	
Specific	County Road 59 street ends (NW Liberty Road, NW Bay Street) and trail	Street ends and trail work where access improvements should be made (M. McCluskey, pers. comm.) (Shoreline Inventory and Analysis Exhibit Q, points 2, 3, and 4). One grouping (1-5) of abandoned pilings is located in this area (Shoreline Inventory and Characterization, Exhibit S).	Identified by Parks as a priority for access improvement. For pilings removal, there may be opportunity to implement as mitigation for other projects.	Invasive species removal and native plant revegetation would be incorporated into any planned access improvements. Because this is a City-owned property, additional habitat improvements (e.g., pilings removal) also could occur.	Yes (water quality)	Yes (remove invasives, plant native)	Yes (nearshore)
Specific	South of NW Bovela Lane (Liberty Shores public beach and picnic area)	Shoreline easement where access improvements should be made (M. McCluskey, pers. comm.) (Shoreline Inventory and Analysis Exhibit Q, point 1).	Identified by Parks as a priority for access improvement. This is an easement for shoreline access at a private community.	Invasive species removal and native plant revegetation would be incorporated into any planned access improvements.		Yes (remove invasives, plant native)	

Type	Location	Specific Description	Special Considerations	Restoration Opportunity ¹	Improvement to degraded condition/impaired function		
					Hydrologic	Vegetation	Habitat
Liberty Bay							
General opportunities for restoration through removal of derelict shoreline modifications and structures from the waters and submerged lands of Liberty Bay.							
General	Entirety of City jurisdiction within Liberty Bay	Remove derelict buoys, docks, piers and other derelict shoreline modifications and structures.	Private property ownership limits non-voluntary actions. There may be opportunity to implement as mitigation for other projects. There may be opportunities to work with state and federal agencies for joint restoration efforts.	Removal of structures and modifications from aquatic environment, including water and submerged lands.	Yes (water quality and wave energy)	Yes (scouring, shading, grounding, sediment alteration)	Yes (nearshore, aquatic)

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.

5 POTENTIAL FUNDING SOURCES

Grant Name	Allocating Entity	Contact
Aquatic Lands Enhancement Account	Washington State Recreation and Conservation Office	Elizabeth Butler (RCO Conservation Grants for Poulsbo area) Phone: (360) 725-3944 E-mail: Elizabeth.Butler@rco.wa.gov
Bring Back the Natives	National Fish and Wildlife Foundation	Krystyna Wolniakowski Phone: (503) 417-8700 E-mail: Krystyna.Wolniakowski@nfwf.org
Coastal and Estuarine Land Conservation Program	National Oceanic and Atmospheric Administration; local contacts at Ecology	Jeanne Koenings Phone: (360) 407-7258 E-mail: jkoe461@ecy.wa.gov Ms. Carrie Byron Phone: (360) 407-7509 E-mail: cbyr461@ecy.wa.gov
Estuarine and Salmon Restoration Program	Washington State Recreation and Conservation Office; Puget Sound Nearshore Partnership	RCO Salmon Grants (Poulsbo area) Dave Caudill E-mail: Dave.Caudill@rco.wa.gov (360) 902-2649
Five-Star Restoration Program	National Fish and Wildlife Foundation	Amanda Bassow Phone: (202) 857-0166 E-mail: Amanda.Bassow@nfwf.org
Land and Water Conservation Fund	Washington State Recreation and Conservation Office	RCO Conservation Grants (Poulsbo area) Elizabeth Butler Phone: (360) 725-3944 E-mail: Elizabeth.Butler@rco.wa.gov
Salmon Recovery Funding Board	Washington State Recreation and Conservation Office	RCO Salmon Grants (Poulsbo area) Dave Caudill E-mail: Dave.Caudill@rco.wa.gov (360) 902-2649
Salmon Recovery Funding Board Community Salmon Fund	National Fish and Wildlife Foundation	Cara Rose Phone: (503) 417-8700 E-mail: Cara.Rose@nfwf.org
Water Quality Grants and Loans	Washington Department of Ecology	Anne Dettelbach Phone: (425) 649-7093 E-mail: adet461@ecy.wa.gov Rachel McCrea, Phone: (425) 649-7223 E-mail rmcc461@ecy.wa.gov
Washington Wildlife and Recreation Program	Washington State Recreation and Conservation Office	RCO Recreation Grants (Poulsbo area) Sarah Thirtyacre Phone: (360) 902-0243 E-mail: Sarah.Thirtyacre@rco.wa.gov
Wildlife and Habitat Conservation Fund	National Fish and Wildlife Foundation	Krystyna Wolniakowski Phone: (503) 417-8700 E-mail: Krystyna.Wolniakowski@nfwf.org
State Wildlife Action Project	National Wildlife Federation	Naomi Edelson Phone: (202) 797-6889 E-mail: edelsonn@nwf.org

6 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.
- City of Poulsbo. 2010. Urban Paths of Poulsbo. October 2010.
- Farncomb, R. Personal communication between Melora Shelton, Grette Associates Biologist and Ryan Farncomb, City of Poulsbo Engineering Technician regarding the Liberty Bay Waterfront Trail as relates to the SMP. E-mail communication (multiple) during February 2011.
- Grette Associates. 2010a. City of Poulsbo Shoreline Master Program Update: Inventory and Characterization. Prepared for the City of Poulsbo. June 2010.
- Grette Associates. 2010b. City of Poulsbo Shoreline Master Program Update: Draft Cumulative Impacts Analysis. Prepared for the City of Poulsbo. November 2010.
- Makers Architecture and Urban Design, J.A. Brennan Associates, the Watershed Company. 2004. Poulsbo's Fish Park Master Plan. Prepared for the City of Poulsbo. August 2004.
- McCluskey, M. Personal communication between Melora Shelton, Grette Associates Biologist and Mary McCluskey, City of Poulsbo Parks and Recreation Director regarding parks and public access plans as relates to the SMP. E-mail communication (multiple) during February 2011.

CITY OF POULSBO
SHORELINE MASTER PROGRAM UPDATE

RESTORATION PLAN EXHIBITS

CITY OF POULSBO
Kitsap County, Washington

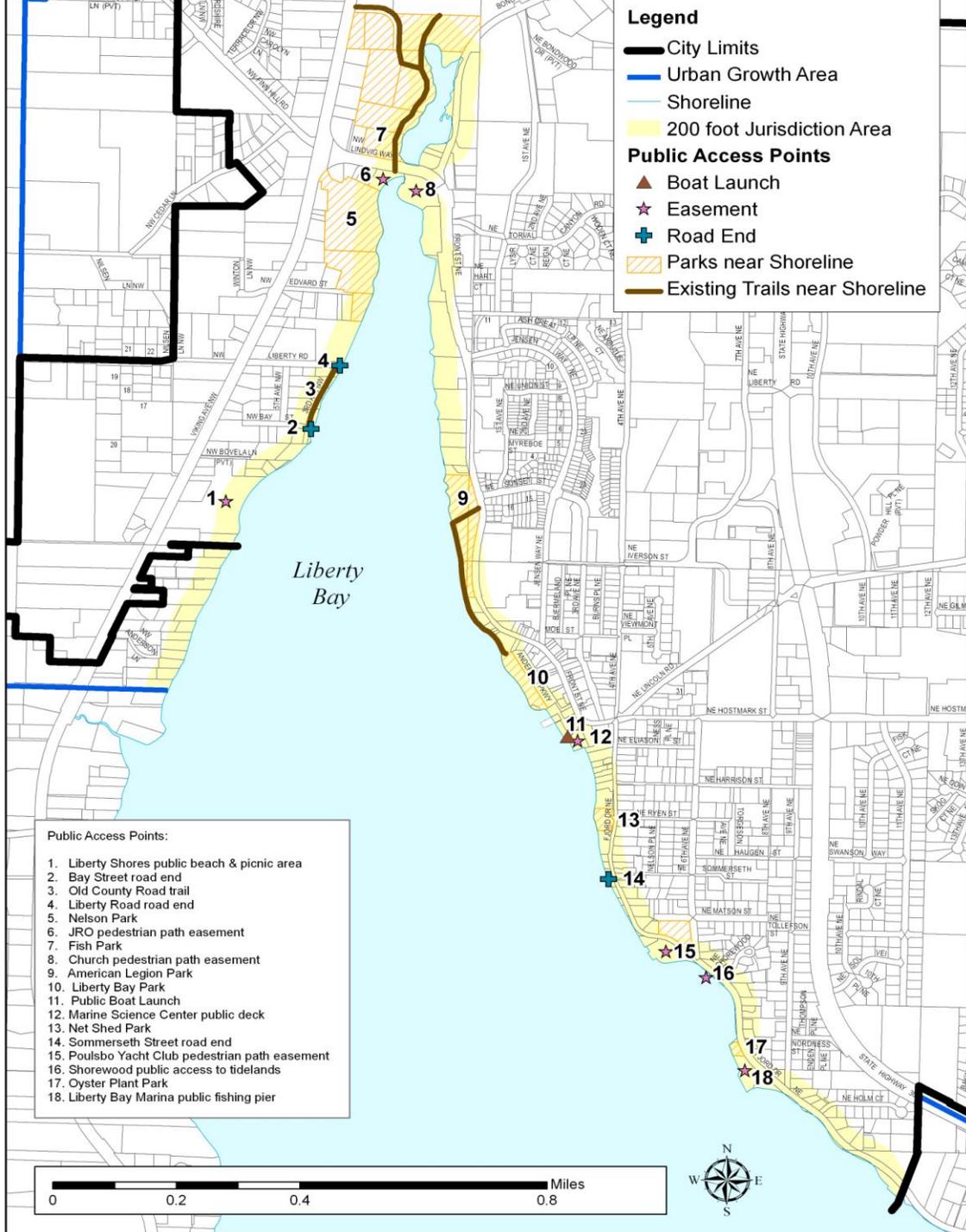
Shoreline Master Program
Ex. Q-1: Existing Public Access Points

Legend

- City Limits
- Urban Growth Area
- Shoreline
- 200 foot Jurisdiction Area

Public Access Points

- Boat Launch
- Easement
- Road End
- Parks near Shoreline
- Existing Trails near Shoreline



- Public Access Points:**
1. Liberty Shores public beach & picnic area
 2. Bay Street road end
 3. Old County Road trail
 4. Liberty Road road end
 5. Nelson Park
 6. JRO pedestrian path easement
 7. Fish Park
 8. Church pedestrian path easement
 9. American Legion Park
 10. Liberty Bay Park
 11. Public Boat Launch
 12. Marine Science Center public deck
 13. Net Shed Park
 14. Sommerseth Street road end
 15. Poulsbo Yacht Club pedestrian path easement
 16. Shorewood public access to tidelands
 17. Oyster Plant Park
 18. Liberty Bay Marina public fishing pier



Primary Map Sources & Original Scales:
 Kitsap County Assessor's Tax Maps 1:12,000, Kitsap County IT, GIS Division.
 (Downloaded May 2011)
 Kitsap County Assessor's Land Use Table, updated by the City of Poulsbo
 Planning Department (Downloaded July 8, 2009)

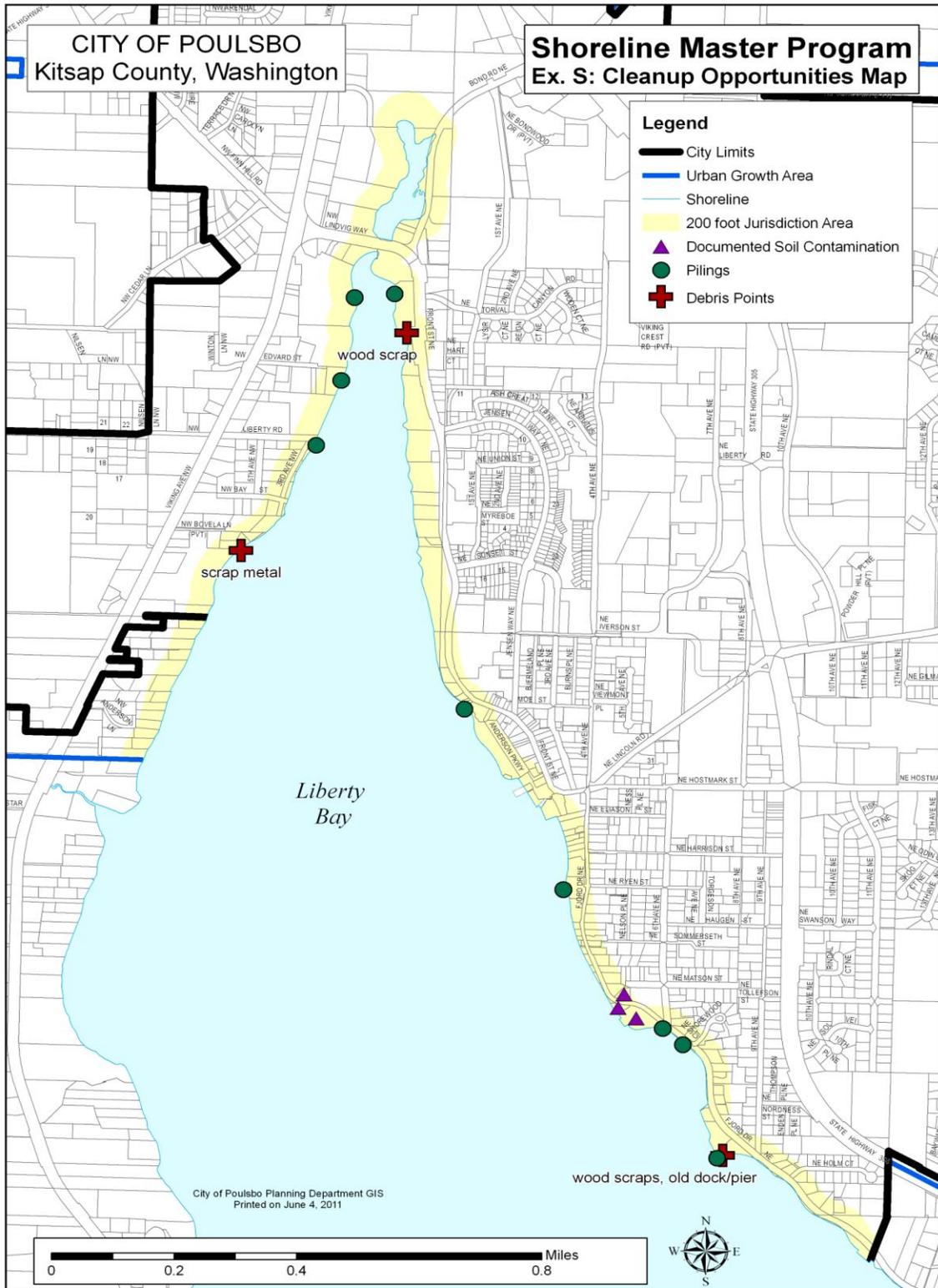
This shoreline map series is intended for general shoreline planning. These maps are schematic representations of physical features, infrastructure, and land ownership boundaries. The map information was derived from available public records and existing sources, not from surveys. Studies may be necessary with project review to verify information.

CITY OF POULSBO
Kitsap County, Washington

Shoreline Master Program
Ex. S: Cleanup Opportunities Map

Legend

-  City Limits
-  Urban Growth Area
-  Shoreline
-  200 foot Jurisdiction Area
-  Documented Soil Contamination
-  Piling
-  Debris Points



Liberty Bay

City of Poulsbo Planning Department GIS
Printed on June 4, 2011



Primary Map Sources & Original Scales:
Kitsap County Assessor's Tax Maps 1:12,000, Kitsap County IT, GIS Division.
(Downloaded May 2011)
Drift Cells, Eastern Kitsap Nearshore Inventory Data, Kitsap County
Community Development, GIS Division.
(Collected Summer-Fall of 2007, Downloaded October 26, 2009)

This map was created from existing map sources, as well as field inventories of certain shoreline features. Determination of fitness for use lies with the user, as does the responsibility for understanding the accuracy and limitations of this data. While great care was taken in using the most current map sources available, there is no guarantee or warranty to its accuracy as to labeling, placement or location of any geographic feature present within this data. These data are intended for informational purposes only, and should not be considered authoritative for engineering, navigational, surveying, and other site-specific uses. City of Poulsbo and Kitsap County assume no legal liability arising from the use of this data in a manner not consistent with the original intent. In no event shall City of Poulsbo or Kitsap County be liable for damages of any kind, including loss of anticipated benefits arising from the use of this data. THIS MAP IS NOT A SUBSTITUTE FOR FIELD SURVEY.

CITY OF POULSBO
Kitsap County, Washington

Shoreline Master Program
Ex. Y: Poulsbo Park, Trail and Open Space Map

Legend

- City Limits
- Urban Growth Area
- Shoreline
- 200 foot Jurisdiction Area
- Planned Trails in Current Parks (2-5 years)
- Future Sidewalk or Acquisition/Easement/ROW Needed for Connections
- Existing Trails & Sidewalk Connections
- Open Space (Via Buffers Required in Applicable Jurisdiction's CAO)*
- Washington DOT Wetland Mitigation Site
- Private Open Space in Developments
- Public Parks

*Per 36.70A.160 RCW

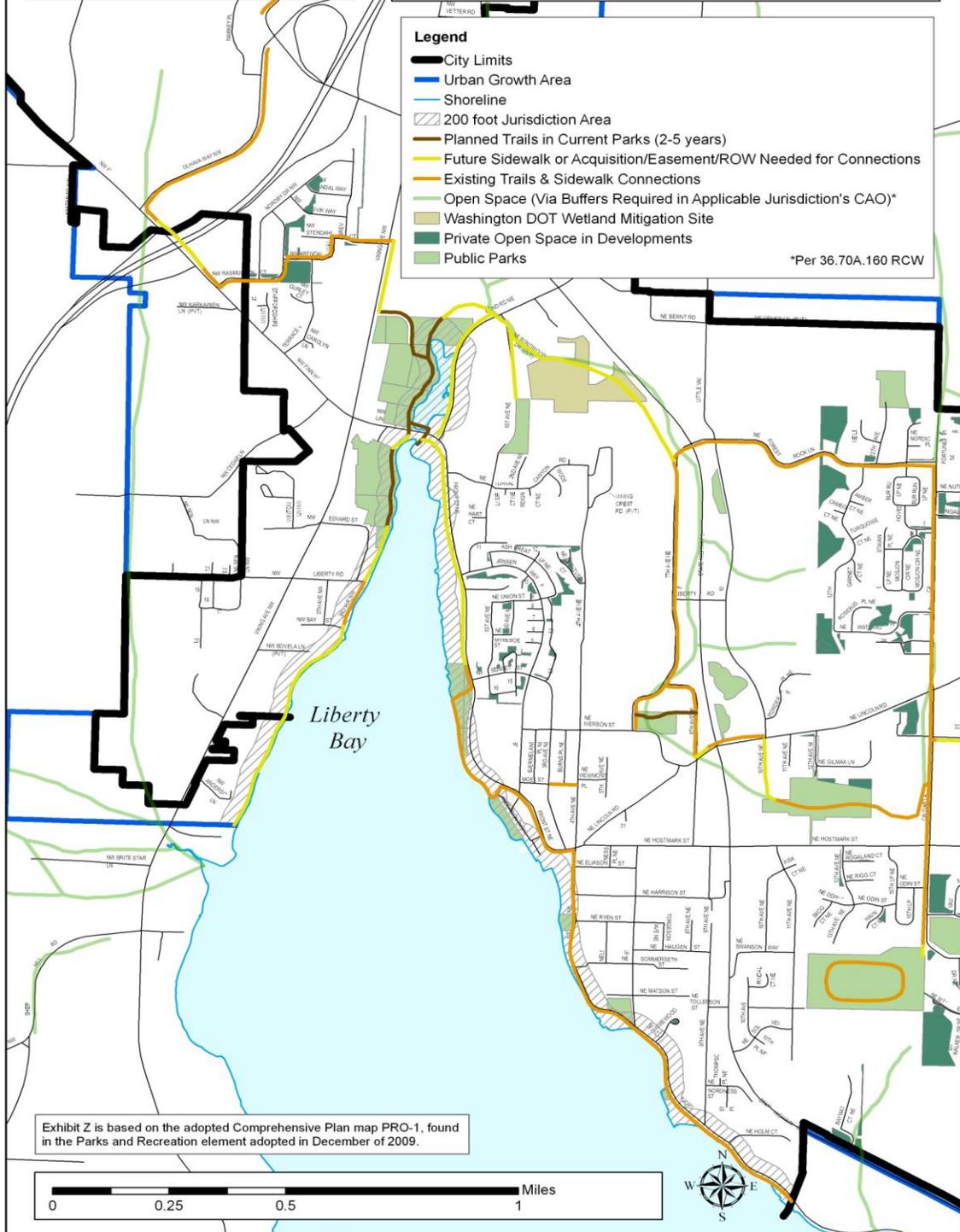
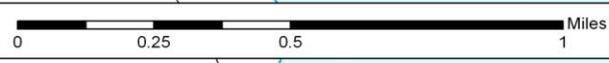


Exhibit Z is based on the adopted Comprehensive Plan map PRO-1, found in the Parks and Recreation element adopted in December of 2009.



Primary Map Sources & Original Scales:
 Kitsap County Assessor's Tax Maps 1:12,000, Kitsap County IT, GIS Division. (Downloaded May 2011)
 W.S.D.N.R. Hydrography, WA State Dept. of Fish and Wildlife 1:24,000
 Kitsap County Assessor's Land Use Table

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