Restoration Plan

Shoreline Master Program Update
La Conner, Washington

Ecology Grant #G1100003

Deliverable for Task 4.1

Due to Ecology: February 28, 2013

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1. INTRODUCTION

The Town of La Conner (Town) is in the process of conducting a comprehensive Shoreline Master Program (SMP) update. This process is partially funded by a grant administered through the Washington State Department of Ecology (Ecology) (SMA Grant No. G1100003). Substitute Senate Bill (SSB) 6012, an Act passed in 2003 relating to shoreline management and amending RCW 90.58.060, 90.58.080, and 90.58.250, requires cities and counties to update their SMPs consistent with the state Shoreline Management Act (SMA), Revised Code of Washington (RCW) 90.58 and its implementing guidelines, Washington Administrative Code (WAC) 173-26.

1.1. Regulatory Overview of the SMA

Washington's 1971 SMA was created in response to a growing concern among Washington residents that irrevocable damage was being done to Washington's shorelines through unplanned and unbridled use.

The SMA policy goals harbor potential for conflict as set forth in WAC 173-26-176(2):

> *The act recognizes that the shorelines and the waters they encompass are "among the most valuable and fragile" of the state's natural resources. They are valuable for economically productive industrial and commercial uses, recreation, navigation, residential amenity, scientific research and education. They are fragile because they depend upon balanced physical, biological, and chemical systems that may be adversely altered by natural forces (earthquakes, volcanic eruptions, landslides, storms, droughts, floods) and human conduct (industrial, commercial, residential, recreation, navigational).*

The SMA is intended to provide a balance between shoreline development and conservation or enhancement of shoreline ecological functions and values by encouraging water-dependent, water-related, and water-enjoyment uses within shoreline jurisdiction.

The legislative findings and policy goals of the SMA (RCW 90.58.020) are:

> *The legislature finds that the shorelines of the state are among the most valuable and fragile of its natural resources and that there is great concern throughout the state relating to their utilization, protection, restoration and preservation.*
>
> *It is the policy of the state to provide for the management of the shorelines by planning for and fostering all reasonable and appropriate uses.*
>
> *Uses shall be preferred which are……unique to or dependent upon use of the state's shoreline.*
>
> *Alterations of the natural condition of the shorelines of the state, in those limited instances when authorized, shall be given priority for single-family residences and their appurtenant structures, ports, shoreline recreational uses including but not limited to parks, marinas, piers, and other improvements facilitating public access to shorelines of the state, industrial and commercial developments which are particularly dependent on their location on or use of the*

shorelines of the state and other development that will provide an opportunity for substantial numbers of the people to enjoy the shorelines of the state.

RCW 90.58.090 authorizes and directs Ecology to adopt:

> *…guidelines consistent with RCW 90.58.020, containing the elements specified in RCW 90.58.100" for development of local master programs for regulation of the uses of "shorelines" and "shorelines of statewide significance."*

RCW 90.58.200 authorizes the department and local governments "to adopt such rules as are necessary and appropriate to carry out the provisions of" the Shoreline Management Act.

Local governments are assigned the primary responsibility for administering a regulatory program consistent with the policies and provisions of the SMA through local SMPs. The SMP guidelines (WAC 173-26), established by Ecology, offer goals and policies (see above) to guide local jurisdictions in developing use regulations and development standards within the shoreline. Local governments are allowed substantial discretion to adopt SMPs that reflect local circumstances, and regulatory/non-regulatory programs.

The SMA thus provides the policy goals and a set of guidelines (WAC 173-26) to assist local jurisdictions in developing, adopting and amending local SMPs, to provide a:

> *…planned, rational, and concerted effort, jointly performed by federal, state, and local governments, to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines.* (RCW 90.58.020)

1.2. Purpose and Goals of the Restoration Plan

Consistent with principle WAC 173-26-186 (8)(c), master programs shall include goals, policies and actions for restoration of impaired shoreline ecological functions:

> For counties and cities containing any shorelines with impaired ecological functions, master programs shall include goals and policies that provide for restoration of such impaired ecological functions. These master program provisions shall identify existing policies and programs that contribute to planned restoration goals and identify any additional policies and programs that local government will implement to achieve its goals. These master program elements regarding restoration should make real and meaningful use of established or funded nonregulatory policies and programs that contribute to restoration of ecological functions, and should appropriately consider the direct or indirect effects of other regulatory or nonregulatory programs under other local, state, and federal laws, as well as any restoration effects that may flow indirectly from shoreline development regulations and mitigation standards.

Ecology states that approaches to restoration and restoration planning will vary between 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.

Ecology's SMP Guidelines (WAC 173-26-020) specifically define "restoration" as follows:

"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.

The Restoration Plan is required by Ecology during Phase 4 of the SMP update process, identified as Task 4.1. The purpose of the Restoration Plan is to provide a framework for the identification, planning and implementation of restoration and enhancement projects within the Town's shoreline jurisdiction, and to allow for the permitting of development while ensuring no net loss of ecological functions. This document presents the Town's Restoration Plan which:

- Establishes overall goals and priorities for restoration of degraded areas and impaired ecological functions;
- Identifies degraded areas, impaired ecological functions, and sites with potential for ecological restoration;
- Identifies 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;
- Identifies additional projects and programs needed to achieve local restoration goals, and implementation strategies including identifying prospective funding sources for those projects and programs;
- Identifies timelines and benchmarks for implementing restoration programs and achieving local restoration goals; and
- Provides for mechanisms or strategies to ensure that restoration projects and programs will be implemented according to plans and to appropriately review their effectiveness in meeting the overall restoration goals.

This Restoration Plan builds on the Town of La Conner Shoreline Inventory, and the Shoreline Inventory and Characterization (Town of La Conner 2011a and 2011b) which provided a comprehensive inventory and analysis of conditions within the Town's Shoreline Environment. The comments received from stakeholders and input of the Technical Advisory Committee (Planning Commission) that reviewed this Restoration Plan have been added or addressed. The intent of this Restoration Plan is to provide local project proponents (development or restoration projects) with the guidance necessary to plan and execute a restoration project that meets No Net Loss requirements, improve shoreline ecological functions, and be consistent with community and stakeholder restoration goals.

The information presented in this Restoration Plan will be used as a basis for subsequent tasks associated with the SMP update process, including revisiting the Cumulative Impacts Analysis (Task 4.2) and the No Net Loss Report (Task 4.3).

1.3. No Net Loss of Ecological Functions

The SMP Guidelines establish the standard of "no net loss" of shoreline ecological functions as the means of implementing a broad policy framework for protecting the natural resources and ecology of the shoreline environment through SMPs. WAC 173-26-186(8) directs that SMPs "include policies and regulations designed to achieve no net loss of those ecological functions."

No net loss incorporates the following concepts outlined in the SMP Handbook (Ecology 2010):

- The existing condition of shoreline ecological functions should not deteriorate due to permitted development. The existing condition or baseline is documented in the shoreline inventory and characterization. Shoreline functions may improve through shoreline restoration.
- New adverse impacts to the shoreline environment that result from planned development should be avoided. When this is not possible, impacts should be minimized through mitigation sequencing.
- Mitigation for development projects alone may not prevent all cumulative adverse impacts to the shoreline environment, so restoration and preservation may also be needed.

The Town's Draft SMP, and this Restoration Plan address the SMP requirements to achieve no net loss by protecting and restoring the Town's marine shoreline, which includes designated Critical Habitat for Federally Threatened Puget Sound Chinook Salmon (*Oncorhynchus tshawytscha*) and Bull Trout (*Salvelinus confluentis*) within the entire marine Aquatic Environment. The difficulty for local governments is to allow new development to occur while maintaining the existing net quantity and quality of shoreline ecological functions. The goals and policies developed in the Town's draft SMP Ordinance attempt to address this apparent problem.

1.4. Town of La Conner History and Landscape Context

The Town of La Conner is located between the Samish River and the North Fork of the Skagit River along the eastern banks of the Swinomish Channel, an 11-mile man-made channel connecting Padilla and Skagit Bays (Figure 1 – Vicinity Map). The shoreline of the Town is noted for its scenic and historic beauty amid a highly developed commercial environment. In the past the Town was the terminus, supply point and harbor for steam ships and freighters and a port for agricultural commodities grown in the surrounding delta farmlands. The Town still serves as a safe harbor for commercial and recreational boats and is home to the Upper Skagit Tribe commercial fishing fleet. The Town is a center for tourism (e.g., Skagit Tulip Festival) and pleasure boating in Skagit County. The downtown core is a National Historic District with most of the historic buildings in the Town remaining unchanged. Many of the waterfront structures extend out on pilings over the Swinomish Channel, reflecting the Town's early and important water related industries.

The ecological value of the area has been altered from pre-settlement conditions through dredging, diking and urban development. Although the area will not be restored to conditions that were present before European settlement there are areas where limited restoration is feasible.

This Restoration Plan provides details of specific areas targeted for restoration and methods that can be employed to improve water quality, enhance fish and wildlife habitat, and improve ecological function, while enhancing the commercial, public use and aesthetic values that define the Town of Conner.

The following section (Section 2) summarizes the goals and policies established in the updated SMP Ordinance that pertain to restoration of degraded areas and impaired ecological functions, and protection of existing

habitat and ecological functions. Section 3 provides a summary of areas identified to be degraded or have impaired ecological functions, and sites with potential for ecological restoration. Section 4 discusses currently planned restoration projects, additional projects and programs needed to achieve restoration goals, potential funding sources, and timelines and benchmarks for implementing the restoration projects and achieving restoration goals. Section 5 provides an implementation and evaluation strategy to ensure that restoration projects and programs will be implemented and monitored effectively.

2. SMP RESTORATION GOALS AND POLICIES

A major goal of this restoration plan will be to improve ecological shoreline functions in key areas where beneficial restoration can be achieved without infringing upon existing water-dependent or water-related uses. This plan does not set out to return the shoreline to pre-development or pre-settlement conditions, but rather improve upon the current ecological baseline in a measurable and achievable way in order to compensate for projected future impacts from on-going development.

The Town of La Conner has six shoreline environmental designations including Residential, Commercial, Industrial, Public Use, Historic Commercial and Aquatic. Table 2-1 below presents the purpose of each designation.

TABLE 2-1. PURPOSE FOR TOWN OF LA CONNER SHORELINE ENVIRONMENTAL DESIGNATIONS

Environmental Designation	Purpose
Historic	Ensure optimum utilization of the shorelines in this area while preserving structures of historic significance along the waterfront, allow as much public access as practicable in conjunction with a variety of water-enjoyment uses, and ensure redevelopment is accomplished in such a way as to minimize any adverse impact on the aquatic and historic environment.
Commercial	Ensure optimum utilization of existing urban commercial shorelines for a variety of uses, with priority given to water-dependent, water-related, and water-enjoyment uses.
Industrial	Ensure optimum utilization of existing urban industrial shorelines for a variety of uses, with priority given to water-dependent, water-related, and water-enjoyment uses.
Residential	Preserve residential use as the primary use while preventing any adverse impacts to the shoreline environment, uses and function.
Public Use	Ensure optimum utilization of existing public uses for public purposes.
Aquatic	Ensure protection of marine resources while allowing as much water-dependent use as possible and keeping a clear navigation channel.

The Cumulative Impacts Analysis (Town of La Conner 2012, Table 3-1) presents a summary of shoreline environmental designations and their location, existing conditions and restricted uses. In addition the Cumulative Impacts Analysis (Town of La Conner 2012, Table 3-2) provides a summary of anticipated uses and activities within the shoreline (residential, commercial and industrial development; boating facilities; transportation; parking; public use, access and recreation; shoreline protection structures; flood control; clearing/grading; vegetation clearing; critical areas; and water quality) and highlights those policies and standards that contribute to protection of shoreline ecological functions.

3. DEGRADED FUNCTIONS/AREAS AND POTENTIAL RESTORATION SITES

In order to achieve the goals of no net loss and reestablishment or restoration of impaired ecological shoreline processes and/or functions, the Restoration Plan draws on much of the baseline shoreline ecological information previously presented in the Shoreline Inventory and Characterization Report (Town of La Conner 2011a). This includes an inventory of existing shoreline information, characterization of baseline shoreline ecological functions (including degraded areas with potential for restoration), and analyses of shoreline use and public access opportunities. The Restoration Plan also draws on information previously presented in the Cumulative Impacts Analysis Report (Town of La Conner 2012) which includes an analysis of potential impacts to shoreline functions from future development within the Town. The report also presents results of a side-scan sonar eelgrass and macroalgae survey performed within the Town limits.

3.1. Proposed Improvements as Part of Future Proposed Upgrades to Existing Shoreline Structures

Current state and federal statutes and guidelines direct project applicants looking to maintain or expand existing structures below the Ordinary High Water Mark (OHWM) (e.g., piles and decking of existing piers, floats and boardwalks) to replace creosote-treated and other treated wood products with non-toxic materials such as non-treated wood, aluminum, steel or concrete. In addition, these statutes and guidelines direct project applicants to incorporate transparency into decking for over-water structures (e.g., piers, floats and boardwalks) and to incorporate low-impact lighting over the water when maintenance or expansions are proposed.

The Town's SMP does explicitly require use of non-toxic materials, transparency in decking or low-impact lighting and so specific guidelines for materials used below the OHWM of the Swinomish Channel would fall under the jurisdiction of WDFW and the USACE. The Town of La Conner SMP directs project applicants to be aware of other permitting requirements (e.g., state and federal) for in-water actions. In addition, for improvement of existing and new over-water structures the SMP has a policy of no net increase in shading across the entire Town's shoreline.

In addition to guidelines that dictate standards for materials and design below the OHWM, the Washington Department of Fish and Wildlife (WDFW) mitigation policy (POL-M5002) and the United States Army Corps of Engineers (USACE)/Environmental Protection Agency (EPA) Mitigation Rule have issued regulations (73 FR 19594-19705) governing compensatory mitigation for authorized impacts to wetlands, streams, and other waters of the U.S. under the Hydraulic Code (WAC 220-110, for WDFW) and Section 404 of the Clean Water Act (for USACE and EPA).

The Town's SMP requires avoidance and mitigation sequencing for work near or within critical areas and habitats (e.g., eelgrass beds), however specific guidance for mitigation would fall under the jurisdiction of WDFW and the USACE.

3.2. Proposed Improvements Occurring Outside Shoreline Jurisdiction

Most of the shoreline management area within the Town has experienced a high level of historical development resulting in a prevalence of impervious surfaces (DNR 2000, Doyle 2011, Town of La Conner 2010a through c, 2011a and b). Shoreline development can negatively affect ecological functions as a result of

an increase in impervious surfaces, which increases surface water runoff including pollutants that may be transported in this runoff, limiting groundwater exchange, influencing the distribution of sediment, nutrients, pathogens, toxins, and woody debris.

Stormwater runoff from impervious surfaces throughout the Town has historically flowed untreated (sheet flow and piped) to the Swinomish Channel, with potential adverse effects to water quality in the Swinomish Channel shoreline environment. Improvements to the stormwater system have been implemented which collect and treat stormwater and release it to Sullivan Slough. Stormwater runoff from the northern portion of Town (north of Morris Street) is now pumped to settling ponds adjacent to the Town's Waste Water Treatment Plant for settling and infiltration. Infiltration from the ponds discharges as groundwater to Sullivan Slough. In addition, overflows from the stormwater system during sustained or heavy rains now discharge directly to Sullivan Slough. A new pipeline from the south portion of Town (south of Morris Street), which will carry stormwater to the infiltration ponds, has been installed, and will become serviceable in 2013-2014. Thus, by 2013-2014, the entire surface water collection system within the Town's right-of ways (north and south basins) will be directed to these ponds, where it will be treated to CWA standards. These improvements in stormwater handling and treatment will result in significantly reduced loadings of contaminants and nutrients to surface waters of the Swinomish Channel. Reductions in direct stormwater discharges to the Swinomish Channel will also lead to reduced contaminant loading to sediments, via settling of suspended sediments with adsorbed contaminants.

3.3. Shoreline Functional Indicators, Baseline Conditions and Existing Degraded Areas

Baseline conditions and existing shoreline ecological functions within the Town's shoreline management area (marine areas and shorelands) were described in the La Conner Shoreline Inventory and Characterization Report (Town of La Conner 2011a).

The Town's shoreline environments are dominated by commercial land use in the historic downtown core (most of Reach 2) with some residential and public use areas. To the south of downtown (southern end of Reach 2 and Reach 3), land use is primarily urban commercial/industrial and to the north of downtown (Reach 1) is a mix of urban commercial and urban industrial. This distribution of land use reflects the Town's maritime commercial history and the Town's vision to preserve its historical authenticity and status as a visitor destination (Town of La Conner, 2005).

Reach 1 is the northern most segment of the Town extending from the northern Town limits, at North Pearle Jensen Way, south for approximately 3,000 feet (0.6 miles) along the Swinomish Channel to South Basin Street (Figure 2 – Shoreline Oblique Photos). There is approximately 5000 feet of shoreline along this reach associated with the La Conner Marina's North and South Basins (owned and operated by the Port of Skagit) and the Drainage Ditch outlet immediately south of Dunlap Street that drains adjacent farm fields. Based on the updated shoreline environmental designations, five environmental designations exist within this reach including Industrial, Commercial, Aquatic, Residential and Public Use (Figure 3, Town of La Conner - Harbor and Shoreline Designations with Critical Areas and Topography).

Reach 2 is the central segment of the Town extending from South Basin Street, immediately south of the Port of Skagit marina properties, south to the Sherman Avenue boat launch (Figure 2). Reach 2 extends for approximately 3,300 feet (0.6 miles) along the Swinomish Channel. Based on the updated shoreline environmental designations, five shoreline environmental designations exist within this reach including

Commercial, Historic Commercial, Aquatic, Residential and Public Use (Figure 3).

Reach 3 is the southern segment of the Town extending from the Sherman Avenue boat launch south to the southern Town limits (Figure 2). Reach 3 extends for approximately 1,200 feet (0.23 miles) along the Swinomish Channel. Based on the updated shoreline environmental designations, three shoreline environmental designations exist within this reach including Industrial, Aquatic and Public Use (Figure 3).

Table 3-1 below presents a summary of shoreline functional indicators, baseline conditions, ecological functions, degraded areas, and potential/proposed restoration actions.

TABLE 3-1. SHORELINE FUNCTIONAL INDICATORS, BASELINE CONDITIONS, ECOLOGICAL FUNCTIONS, DEGRADED AREAS AND PROPOSED RESTORATION ACTIONS.

Shoreline Functional Indicators	Baseline Conditions	Ecological Functions Provided or Lost	Degraded Areas That Can Be Restored	Potential / Proposed Restoration Actions
Over-Water Structures: Piers, docks, gangways, piles, floats, boardwalks, buildings and other man-made over-water structures.	• Shoreline structures within the Town consist of over-water portions of buildings (including outdoor patio seating), docks, piers and marina slips. Within Reach 1 the La Conner Marina has 366 covered moorage slips, 131 open moorage slips and 2,400 lineal feet of dock space for overnight moorage. Within Reach 3, the Pioneer Point Marina has an approximately 450-foot long floating dock and a large over-water pier (95 feet by 65 feet). A small portion of the floating dock (e.g., 20 ft) is outside of the Town's Shoreline jurisdiction. • Based on an analysis of recent aerial photographs the following are total lengths of shoreline within each Reach that have no overwater structures within 100 feet waterward of the OHWM o Reach 1: 640 ft out of 5,000 ft (13%) o Reach 2: 735 ft out of 3,300 ft (22%) o Reach 3: 770 ft out of 1,200 ft (64%) • In 2009, demolition of the Olympic Seafood Company plant (immediately north of the Pioneer Point Marina, within Reach 3) resulted in removed of approximately 23,000 SF of overwater structures. o Prior to the removal of the Olympic Seafood plant Reach 3 had 330 ft (28%) of shoreline free of over-water structures.	**Impacts of Over-Water and In-Water Structures** • Produces shade which decreases primary productivity of aquatic plants and algae (food source and substrate/ habitat for marine life) • Salmon fry tend to avoid the dark areas under over-water structures, forcing them out into deeper water with predators • Creosote-treated wood (or other treatment product) leaches into sediments causing contamination with potential impacts to aquatic life **Potential Functions of Over-Water and In-Water Structures** • Structures such as piles and floats provide a substrate for encrusting macroalgae and invertebrates, and can serve as a substrate for herring spawn (Penttila 2007).	• The Town's shoreline historically and presently has a commercial environment, built up to and in parts, over, the Swinomish Channel. It is not the goal of the Town to reduce over-water structures over time but rather to reduce the environmental impacts of them by improving the materials used to build these structures and to incorporate transparency and low-impact lighting as improvements are proposed by project applicants. For improvement of existing and new over-water structures the Town's SMP has a policy of no net increase in shading across the entire Town's shoreline. • In 2009, at the former Olympic Seafood Company (immediately north of the Pioneer Point Marina), overwater structures (piers, ramps and float structures), upland buildings and marina facilities were demolished under a DNR grant for creosote piling removal (Figure 3). The total area of over-water structures removed was approximately 23,000 SF, just over half an acre. The Town plans to develop the site for Public Use (Conner Way Waterfront Park). Part of this planned development is the installation of an over-water pier for Public Access/Enjoyment.	As older overwater and in-water structures (e.g., piles and decking of existing piers, floats and boardwalks) are repaired and maintained, creosote-treated and other treated wood will be replaced with non-toxic materials such as non-treated wood, aluminum, steel or concrete. In addition, applicants will be required by state and federal entities to incorporate transparency into decking for over-water structures (e.g., piers, floats and boardwalks) and to incorporate low-impact lighting over the water.
Marine Riparian Vegetation	• Limited marine riparian vegetation. • Commercial development extends up to and often waterward of the OHWM. • Landscape trees at the south and north basins of the La Conner Marina. • Forested hill south of Sherman Ave within Shoreline zone, but does not abut marine riparian area.	• Removal of marine riparian vegetation can lead to increased erosion and sediments inputs, loss of organic inputs and habitat structure from dead plant parts and a general loss or elimination of the following shoreline ecological functions: • Slope stability (e.g., root structure, drainage control), food web, water quality (e.g., sediment trapping), habitat structure (e.g., logs, branches and leaves) and sediment metering and deposition (e.g., controls rates of erosion and volumes).	Street End Public Access Points and the undeveloped Public Use area under the Rainbow Bridge have very limited marine riparian vegetation. The five Public Use areas where Jordon, Morris, Washington, Benton and Calhoun Streets meet the Swinomish channel and the Public Use area under the Rainbow Bridge are shown on Figure 2.	• Conner Way Waterfront Park (new). Located immediately south of the Sherman Street boat launch across Conner Way from Pioneer Park. This park will have a water-enjoyment and public access component. Restoration will primarily involve establishing patches of native marine riparian vegetation (forested, shrub and herbs/emergent) within the shoreline buffer. • Several street end projects will be completed by the within existing public right-of-ways where the following streets end at the waterfront: Jordan, Washington, Benton, and Calhoun Streets. The goals of the projects will be two-fold: first, to improve access and enjoyment opportunities for the public at the shoreline interface, and second, to provide shoreline ecology functional lift through the establishment of native riparian vegetation.

Shoreline Functional Indicators	Baseline Conditions	Ecological Functions Provided or Lost	Degraded Areas That Can Be Restored	Potential / Proposed Restoration Actions
Shoreline Armoring /Revetments	• Shoreline armoring was installed along the Town's shoreline by the USACE in the 1990s. • Armoring remains prevalent throughout downtown area. • Armoring also exists to a large extent along the shoreline both north and south of downtown. • Very limited distribution of natural beaches.	WAC 173-26-231 (Shoreline modifications) lists the following impacts to shoreline ecological functions from Shoreline armoring: • Beach starvation. • Sediment impoundment/loss of sediment sources. • Ground water impacts/higher GW table on landward side can lead to higher beach pore pressure and accelerated erosion of sand. • Hydraulic impacts/Increased Reflectivity/Exacerbation of Erosion. • Elimination/Loss of shoreline vegetation/Habitat Degradation.	• Within Reach 1 the La Conner Marina maintains gradually sloped banks that are either unarmored or armored with quarry spalls and some riprap near MHHW. • Within Reach 2 the shoreline of the Town's downtown core is fully armored with riprap from as high as 15 feet above MLLW to 15 feet below MLLW. The Town is required by the USACE to maintain the revetment in a fully functioning state (USACE 1996). • Within the lower portions of Reach 2 the shoreline is armored with riprap from the OHWM down to approximately 3 feet above MLLW. • Within Reach 3 the shoreline is armored with riprap from near the OHWM down to approximately 3 feet above MLLW. Below the riprap the shoreline slopes gradually and the substrate consists of fine muddy sediments with scattered rock. These gradually sloping areas, with a mixture of fine sediments and rock substrate have the potential to be serving as fish benches.	• No armoring will be removed within the Town. • Within Reach 3, as the Conner Way Waterfront Park is developed existing shoreline armoring in this reach may be repaired and LWD incorporated into the revetment face.
Wetland Habitat	• No freshwater wetlands within the Town's shoreline zone (USFWS 1987). • Within Reaches 1 and 2 of the Town, limited salt marsh habitat at the tidal fringe was identified by the DNR Shoreline Inventory and the Skagit County Intertidal Habitat Inventory • Some limited eelgrass and macroalgae habitat has been identified within the Town (Appendix B).	• No freshwater wetlands – see "Fish and Wildlife Species/Habitat" for marine habitats and "Marine Riparian Vegetation" for riparian habitats	NA	NA
Fish and Wildlife Species/Habitat	• Within Reaches 1 and 2 of the Town of La Conner limited salt marsh habitat at the tidal fringe was identified by the DNR Shoreline Inventory and the Skagit County Intertidal Habitat Inventory • Some limited eelgrass and macroalgae habitat has been identified within the Town (Town of La Conner 2012). • Marine mammals are not anticipated to occur in the Channel. • Limited habitat for fish, seabirds, waterfowl and shorebirds. • Primarily used as a migratory corridor for a variety of fish species. • Shellfish and other invertebrates are present in limited abundance.	• Two eelgrass patches (including one mitigation site), scattered salt marsh vegetation, and patches of macroalgae (rockweed and Turkish towel) provide shelter, habitat and food for marine life. • Limited soft sediment areas provide habitat for burrowing marine life	Within Reach 3 areas of the shore below +3 ft (MLLW) consist of gradually sloping shoreline with fine muddy sediments and scattered rock.	Within Reach 3, as the Conner Way Waterfront Park is developed the shallow benches below the riprap can be improved to provide a safer migratory path for migrating juvenile salmonids and better habitat for prey items for young fish (e.g., copepods and amphipods). Types of improvements suitable for the site include: • Adding LWD (secured through partial burial) • Development of salt marsh areas higher up on the beach • Improving substrate conditions by removing debris and angular rock and replacing with gravel or sand/silt • This area could potentially serve as a future eelgrass mitigation site for any impacts to eelgrass within other sections of the shoreline Some of these improvements will occur as part of the Town's development of the site as a park and other improvements will occur as part of mitigation for project actions within the Town.
Flooding	• Most of the Town is within the 100-year floodplain of the Skagit River. • Flooding from the Skagit River has not occurred within the Town since the early 1900s. • Limited flooding from storm surges (within the Swinomish Channel) is controlled using sandbags and containment materials.	• Dikes protect the Town to the south and east.	NA	• No proposed restoration for flood control. • Surface waters within the Town drain to the Swinomish Channel and not to the Skagit River (Savoca et al, 2009)

Shoreline Functional Indicators	Baseline Conditions	Ecological Functions Provided or Lost	Degraded Areas That Can Be Restored	Potential / Proposed Restoration Actions
Impervious Surfaces	• The baseline level of impervious surface in the Town in 2002 was 51.4 acres and is now 54.64 acres. Town of La Conner added 140,568 SF (3.23 acres) of new impervious surfaces between 2002 and 2012. The percent of these impervious surfaces that occur within the shoreline management area is unknown. • Areas of non-impervious surfaces within the shoreline environment include: o Strips of landscaping around La Conner Marina basins o Areas of residential yards and school fields east of the south basin of La Conner Marina o Portions of street ends (public access)– patchy grass areas o Between State and South Basin Streets: Grass areas adjacent to the Swinomish Channel and landscaped strips with trees east of 1st Street o Between State and Centre Streets: Landscaped area adjacent to Swinomish Channel at La Conner Channel Lodge o Between Washington and Douglas Streets: portion of forested and grassy areas east of 1st Street o Immediately north of Sherman St (lawn and a few trees) o South of Sherman Street (Reach 3) ▪ East of Conner Way: Pioneer Park is a forested hill ▪ West of Conner Way: areas of grass and a few trees north of the Pioneer Point Marina	The construction of impervious surfaces result in removal of vegetation, disruption of surface water infiltration, increases in overland flow/surface water runoff, and impacts to water quality from increased transport of sediments and contamination from cars, man-made materials etc.	The Town does not have an overall goal of reducing impervious surfaces within the shoreline environment; however as the Conner Way waterfront park is developed, some of the areas formerly covered by buildings and gravel parking areas associated with the Olympic Seafood Plant will be converted to non-impervious park lands thereby reducing impervious surface areas in the shoreline from baseline conditions.	Conner Way Waterfront Park
Channel Conditions Sediment	• Man-made cut. • Regular dredging. • Limited aquatic vegetation. • Non-native sediment surface in many locations (e.g., quarry spalls/angular rock, imported gravel)	See "Fish and Wildlife Species/Habitat" for functions of existing marine habitats within the channel	• The Swinomish Channel has been dredged by the USACE every three to four years to an authorized depth of 12 feet below mean lower low water to keep the channel open for vessels and prevent boats from running aground (Bach 2010). • Dredging began again in September 2012 and continued until January 2013 removing over 220,000 cubic yards of material from the channel bottom (Port of Skagit 2013). • These dredging activities cause on-going disturbance of the channel bottom (both from direct removal of sediments and slumping of the side slopes) including potentially the limited areas of eelgrass habitats and shellfish beds. In addition, dredging activities cause temporary increases in turbidity.	See "Fish and Wildlife Species/Habitat" for proposed restoration of marine habitats
Water Quality	• The Swinomish Channel was listed on the 2008 Water Quality Assessment as a Category 5 – Polluted Waters/303d List impaired waterbody for tissue level exceedances for Benzo(a)anthracene and Chrysene (north of the Town of La Conner) (Ecology 2009 and 2008) and shellfish had elevated levels of tributyltin and Polycyclic Aromatic Hydrocarbons (PAHs) (Johnson 2000). • Altered salinity gradients from construction of the McGlinn Island Causeway and Jetty which prevents freshwater from the Skagit River from flowing north up the Swinomish Channel so that a sharp salinity contrast is created between the Swinomish Channel and the Skagit River approximately 3,000 feet south of the southern La Conner Town limits at the north end of McGlinn Island. • Stormwater discharge directly to Channel.	If marine waters of the Swinomish Channel meet water quality standards, the channel can provide habitat for marine life with sufficient oxygen and low risks of toxicity and eutrophication.	• The Town does not have jurisdiction over the McGlinn Island Causeway and Jetty or the areas to the north where tissue exceedances were observed. • Much of the surface runoff from impervious surfaces in the Town historically flowed untreated to the Swinomish Channel. Improvements to the stormwater system have been implemented which collect and treat stormwater and release it to Sullivan Slough. Stormwater runoff from the northern portion of Town (north of Morris Street) is pumped to settling ponds, adjacent to the Town's Waste Water Treatment Plant, for settling and infiltration.	Treatment of runoff from remaining impervious surfaces is planned as part of Town's stormwater sewer upgrades, which are ongoing. A new pipeline from the south portion of Town (south of Morris Street), which will carry stormwater to the infiltration ponds, has also been recently installed, and will become serviceable in 2013-2014. Thus, by 2013-2014, the entire surface water collection system within the Town's limits will be directed to these ponds, where it will be treated to CWA standards.

4. RESTORATION PROJECTS AND EXISTING PLANS AND PROGRAMS

This section discusses currently planned restoration projects, additional projects and programs needed to achieve restoration goals, potential funding sources, and timelines and benchmarks for implementing the restoration projects and achieving restoration goals.

4.1. Degraded Areas With Potential For Restoration

Within the Town, due to the built out nature of developments within the shoreline, there are limited areas available for restoration. The Town has identified five sites with degraded conditions that abut the Swinomish Channel where future restoration/mitigation could occur. These sites include four street-end public access points within Reach 2 and the Conner Way Waterfront Park under the Rainbow Bridge within Reach 3.

The most significant opportunity for restoration of shoreline is along the waterfront adjacent to Conner Way in the vicinity of the Maple Ave/Pioneer Parkway bridge ("Rainbow Bridge"), between the Sherman Street public boat launch and the Pioneer Point Marina. This area is currently vacant and generally possesses degraded conditions. A portion of the area was formerly occupied by the Olympic Seafood plant, and is now planned to become the Conner Way Waterfront Park. This park will have a water-enjoyment and public access component, as it will be designed for public use. Ecological restoration that will occur as part of development of the park will primarily involve establishing native marine riparian vegetation west of Conner Way and potentially incorporating LWD into the shoreline. For future mitigation opportunities ecological restoration could include establishing additional native riparian vegetation within the buffer, adding additional LWD, developing salt marsh areas in the upper beach and eelgrass in the lower beach, removing derelict manmade structures and debris, and improving substrate conditions by removing debris and angular rock and replacing with gravel or sand/silt.

The following table presents a summary of degraded areas with potential for restoration.

TABLE 4-1. SUMMARY OF DEGRADED AREAS WITH POTENTIAL FOR RESTORATION

Degraded Area	Degraded Areas To Be Restored/Enhanced	Funding Source(s)	Implementation Timeline
Conner Way Waterfront Park South of Sherman St Boat Launch west of Conner Way	**Restoration:** Development of the park will involve enhancing marine riparian and in-water habitats by: • Decommissioning some impervious surfaces (e.g., gravel parking areas and old building sites) to create parkland • Establishing native riparian and forested vegetation within the shoreline buffer • Adding LWD (secured through partial burial)	Recreation and Conservation Office (ROC) Grant Private Investment ($50,000)	Built by 2015
	Mitigation: Future enhancement actions performed as mitigation could include enhancing marine riparian and in-water habitats by: • Establishing additional native riparian and forested vegetation within the shoreline buffer • Adding additional LWD (partially buried) • Developing salt marsh areas in the upper beach • Removing derelict manmade structures and debris • Improving substrate conditions by removing debris and angular rock and replacing with gravel or sand/silt • Establishing new eelgrass beds	Future project proponents requiring riparian or in-water mitigation could use the Conner Way Waterfront Park site as a mitigation site. Funding for the enhancement/ restoration actions would come from the project proponents.	As future projects with impacts to riparian or in-water are proposed and permitted.
Washington Street End	Several street end projects will be completed by the Town. These projects will be completed within existing public right-of-ways where the following streets end at the waterfront: The goals of the projects will be two-fold: first, to improve access and enjoyment opportunities for the public at the shoreline interface, and second, to provide shoreline ecology functional lift through the establishment of native riparian vegetation. Because these street ends are relatively small and located within a heavily developed commercial environment, riparian vegetation in these areas will have limited function. An improvement project has already been completed at the Morris Street end as a part of the USACE bank armoring project and included creation of fish benches below the OHWM.	Town of La Conner (10%) Private sources /grants (90%)	The Benton and Washington Street end restoration/redevelopment projects are scheduled to be completed in 2013.
Benton Street End			
Calhoun Street End			Calhoun Street end is scheduled to be completed in 2014.
Jordan Street End		Town of La Conner ($50,000) Develop a usage plan for Jordan St End as a recreation facility, picnic, parking and water access.	Jordon Street end is scheduled to be completed in 2015 or later.

4.2. Existing Plans, Programs and Partners

4.2.1. Potential Partner Organizations / Agencies

Table 4-2 presents existing organizations and programs that could assist with future restoration efforts.

TABLE 4-2. POTENTIAL PARTNER ORGANIZATIONS AND THEIR ROLE IN RESTORATION

Organization/Program	Purpose and Goals	Potential Role in Town of La Conner Ecological Restoration
Washington State Department of Natural Resources (DNR) Aquatic Lands Restoration Funding Aquatic Resources Division http://www.dnr.wa.gov/ResearchScience/Topics/AquaticClean-UpRestoration/Pages/aqr_restoration_program.aspx	DNR funds and partners with entities to clean up the nearshore environment (e.g., removal of creosote piles, derelict vessels).	Provide funding, grant application support, permit review, design, project management and implementation for nearshore aquatic restoration projects.
Skagit Fisheries Enhancement Group (SFEG) http://www.skagitfisheries.org/	SFEG is a nonprofit organization formed in 1990 to engage communities in habitat restoration and watershed stewardship in order to enhance salmon populations. As a non-governmental organization, they have unique cooperative relationships with local landowners, conservation groups, government agencies and tribes. They provide educational programs and perform restoration work on streams, wetlands, estuaries and nearshore marine areas.	Provide public education and assist with design and implementation of restoration projects.
Skagit Watershed Council http://www.skagitwatershed.org/ Designated lead-entity for Water Resource Inventory Areas (WRIA) 3 and 4	The Skagit Watershed Council is a "big-tent" community-based partnership of organizations working together to protect and restore salmon habitat in the Skagit and Samish watersheds. As Lead Entity, based on input from the Technical Advisory Group (TAG) and Water Resources Advisory Committee (WRAC), the Council evaluates and prioritizes restoration project proposals in WRIAs 3 and 4. The WRAC and TAG create a prioritized list of projects for submittal to the Salmon Recovery Funding Board.	Provide public education and assist with design and implementation of restoration projects, including projects outside the Town's jurisdiction within Skagit County. As the lead-entity for WRIAs 3 and 4 they provide the mechanism for local organizations and agencies to obtain Salmon Recovery Funding (SRF) Board grants.
United States Environmental Protection Agency (EPA) Clean Water State Revolving Fund (SRF) http://water.epa.gov/grants_funding/cwsrf/cwsrf_index.cfm Water: Grants & Funding http://water.epa.gov/grants_funding/	The Clean Water State Revolving Fund (SRF) funds water quality protection projects. Through this program, EPA provides funds to states and tribes who then provide low-interest loans to municipalities, communities of all sizes, farmers, homeowners, small businesses, and nonprofit organizations for high-priority activities to improve water quality.	Fund projects that will improve water quality and renew wastewater infrastructure. The program funds water quality protection projects for wastewater treatment, nonpoint source pollution control, and watershed and estuary management.

Organization/Program	Purpose and Goals	Potential Role in Town of La Conner Ecological Restoration
Skagit County Marine Resources Committee http://www.skagitcounty.net/Common/Asp/Default.asp?d=PublicWorksMRC&c=General&p=smrcmain.htm	The purpose of the Skagit MRC is to discuss marine related issues and determine action items to enhance and protect local marine habitat. A key committee task is to involve and educate the public about these issues. Examples of local marine projects include select and study candidate marine protection areas for rocky reef bottomfish habitat, re-establish the native Olympia Oyster, remove the invasive saltwater weed (Spartina), inventory beaches for signs of forage fish habitat, remove derelict fishing gear, develop feasible nearshore restoration projects, enhance the Pacific Oyster.	Public education and project selection
Pioneer Point Marina	Owner of Pioneer Point Marina and adjacent upland property.	Future project proponent for marina improvements. Upgrades and maintenance will decrease the impact of over-water structures and may require mitigation.
Port of Skagit County	Owner of La Conner Marina (north and south basin) and adjacent upland property.	Future project proponent for marina improvements. Upgrades and maintenance will decrease the impact of over-water structures and may require mitigation.
Upper Skagit Indian Tribe (USIT)	Owner of La Conner Pier and associated fishing fleet.	Future project proponent for facility/pier improvements which may require mitigation.
Recreation and Conservation Office (RCO) Grants http://www.rco.wa.gov/grants/grants_available.shtml	Available Grants listed below:	See below:
Aquatic Lands Enhancement Account (ALEA)	Funding to buy, protect, and restore aquatic lands habitat and to provide public access to the waterfront.	Conner Way Water Park
Boating Facilities Program (BFP)	Funding to buy, develop, and renovate facilities for motorized boats.	Marina restoration/ improvements
Boating Infrastructure Grant Program (BIG)	Funding to develop and renovate boating facilities and for boater education.	Marina restoration/ improvements and boater education.
Land and Water Conservation Fund (LWCF)	Funding to buy or develop public outdoor recreation areas and facilities.	Purchase / develop public outdoor recreation areas/ parks.
Salmon Recovery	Funding to improve important habitat conditions or watershed processes to benefit salmon and bull trout.	Swinomish Channel Restoration Projects
Washington Wildlife and Recreation Program (WWRP)	Funding for local and state parks, trails, water access, state land conservation and restoration, farmland preservation, and habitat conservation.	Development and redevelopment of Conner Way Water Park and Street End Public Access areas.

4.2.2. Town of La Conner Stormwater Management Plan Update (2007)

The Town issued an update to its 1995 Stormwater Management Plan which outlined steps taken between 1995 and 2007 to reduce drainage problems and extend service throughout the Town.
Principal projects included:

- The Town created a functional Stormwater Utility and has been collecting connection and service charges in order to fund ongoing maintenance and the proposed Capital Improvement Project.
- The Town has adopted [La Conner Municipal Code 15.100.070] the Stormwater Management Manual for Western Washington [Dept. of Ecology] and has established an engineering review and approval procedure for all significant repairs and extensions of the drainage system.
- The Town has constructed a collection and transmission main, with a high capacity pump station, to serve the Morris Street Basin. This project was done in conjunction with a major rehabilitation of Morris Street and served to address many of the historic drainage problems in the area.
- The Town has constructed a water quality pond that has been sized to serve both the Morris and Caledonia basins.
- The Town has used both Public Works construction contracts and Public Works staff to construct several extensions and upsizing replacements to the stormwater system

There are four drainage areas/basins that are served within the Town: Caledonia, Morris Street, the La Conner Middle School, and the Port of Skagit County. The Caledonia basin serves the southern portion of the Town and currently discharges to the Swinomish Channel. As discussed in Section 3.2 recent improvements to the Morris Street basin (which serves the center portion of the Town) collect and discharge stormwater to the regional treatment pond at the Waste Water Treatment Plant and then to the Sullivan Slough. A new pipeline from the south portion of Town (Caledonia basin), which will carry stormwater to the regional infiltration pond, has been recently installed and will become serviceable in 2013-2014. By 2013-2014, the Caledonia and Morris Street basins will both be directed to the treatment ponds, where it will be treated to CWA standards. Within the Town's limits, the middle school operates a private system that discharges to the Drainage Ditch immediately south of Dunlap Street. The Port of Skagit County also operates a private system that serves the northern third of the Town's limits and discharges to the Drainage Ditch which drains to the Swinomish Channel.

4.2.2.1 NPDES STATUS

Currently, the Town is not one of the entities required to be permitted under NPDES Phase II regulations. The Town has taken pro-active steps to develop and manage a stormwater utility and has adopted and implements the requirements of the current Stormwater Management Manual for Western Washington.

4.2.2.2 STORMWATER UTILITY – NEEDS

Currently, the Town does not have an effective means of inspecting the private drainage systems due to a lack of information on the private systems. The Town had a goal to develop a comprehensive system map or listing of all significant storm drain facilities on private property. The information collected will be used to develop an inspection schedule. A mailer could be included with a regular billing to request the submission of drainage plans from those individuals with piping, treatment, and control structures that discharge off of their property. Property owners would be given 6 months to compile and submit the information.

4.2.3. Parks Plan

In 2013, the Town adopted the Parks and Recreation Plan as an element of grant funding requests to the Recreation and Conservation Office (RCO) (Town of La Conner 2013a). The Town will continue to update and improve the plan for waterfront and recreational development. Goals of the Parks Plan relevant to the SMP include:

- Designate, retain, maintain, and enhance publicly owned and leased lands and facilities for the purpose of parks and recreation for Town residents, service area residents (school district) and visitors to Town.
- Protect and develop view corridors to waterways, farmlands and scenery of the community as public land locations permit.
- Integrate wildlife and conservation elements in the parks planning (environmental conservation includes the planning, coordination, and preservation of unique wildlife habitat, ecological, wetland, and open space areas)

In addition, the Comprehensive Plan's vision of "open space and public access to the waterfront is a priority" further emphasizes the Town's commitment to waterfront public access and enhancement of aesthetic and wildlife habitat aspects of these public access areas.

The Street End Parks and Conner Way Waterfront Park are listed in the Parks Plan as current and future improvements occurring between 2013 and 2015.

The Parks plan contains an implementation strategy that includes involvement of and coordination with local stakeholders and a long range planning and prioritization process that includes being prepared to act quickly on opportunities (Town of La Conner 2013a).

The Town's Six-Year Capital Facilities Plan (Town of La Conner 2013b) lists prioritized park improvements with associated cost estimates, funding sources and implementation schedules.

4.2.4. Port of Skagit – Marina Maintenance Program

The Port of Skagit has a binding site plan for the La Conner Marina that outlines water and sewer utility easements, access corridors, stormwater and drainage plans. The Port also maintains a master plan to guide future developments of the marina. The Town of La Conner is working with the Port of Skagit as they plan improvements to their stormwater treatment facilities to reach compliance with 2012 stormwater standards.

4.3. Implementation Strategy and Schedule

4.3.1. Street End and Conner Way Waterfront Park Improvement Projects

Section 4.1 above discusses the Street End and Conner Way Waterfront Parks as sites for both short-term and long term restoration efforts. The Town has developed an implementation strategy and schedule for the short-term aspects of these projects to ensure effective and timely implementation. Development of the public access, furnishing (e.g., benches and picnic tables), and landscaping/riparian enhancement components of these projects will be completed by 2015 (short-term). Implementation and funding strategies for these projects are presented in the Parks Plan and Capital Facilities Plan (Town of La Conner 2013a and 2013b).

Mitigation projects will occur at these sites over both the short-term and long-term as mitigation needs arise

for project impacts on riparian or in-water environments within the Town.

Future restoration projects at these sites that are not part of existing planned developments or are not satisfying future mitigation needs will occur over the long-term as the Town and project partners (e.g., non-profits, agencies or tribes) work together to achieve the common goals of water quality improvement and near-shore habitat enhancement and restoration.

4.3.2. Surface Water/Stormwater Treatment Improvements

By 2013-2014, the entire surface water collection system within the Town's right-of-way areas (Caledonia and Morris Street basins) will be directed to the regional infiltration ponds, where surface water will be treated to CWA standards.

4.3.3. Improvements to Overwater and In-water Structures

As older overwater and in-water structures (e.g., piles and decking of existing piers, floats and boardwalks) are repaired and maintained federal and state agencies will require that creosote-treated and other treated wood be replaced with non-toxic materials such as non-treated wood, aluminum, steel or concrete. In addition, applicants will be required by state and federal entities to incorporate transparency into decking for over-water structures (e.g., piers, floats and boardwalks) and to incorporate low-impact lighting over the water when maintenance or expansions are proposed. These improvements will occur over the short-term and long-term and are part of existing regulatory programs and permit conditions.

Within the downtown core, the Town has an existing boardwalk along the channel mostly on private land with public easements. The Town has plans to expand the waterfront boardwalk to extend continuously from Commercial Street to Jordan Street. Phase 1 of this project (Benton to Morris St) has been permitted and will be constructed in the summer of 2013 (Town of La Conner 2011c). Through the use of grated (light penetrating) decking on new structures and replaced sections of existing boardwalk, the boardwalk project will result in no net increase in shade over the Swinomish Channel, which is in line with the Town's SMP policy of no net increase in shading across the entire Town's shoreline.

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