
**CITY OF GOLD BAR SHORELINE MASTER PROGRAM
RESTORATION PLAN**

Skykomish River, Wallace River, and May Creek Shorelines

**Task 4 Report
Final Draft March 11, 2013**

Recipient:



City of Gold Bar
Public Works Department
107 5th Street
Gold Bar, Washington 98251

Prepared by:



AHBL, Inc.
2215 North 30th Street
Suite 300
Tacoma, Washington 98403



This report was funded in part through a grant from the Washington Department of Ecology.

TABLE OF CONTENTS

Section	Page No.
1.0 INTRODUCTION	1
2.0 SHORELINE INVENTORY AND CHARACTERIZATION SUMMARY	3
2.1 Shoreline Jurisdiction	3
2.2 Inventory	4
2.2.1 Land Use and Physical Conditions	5
2.2.2 Biological Resources and Critical Areas	6
2.2.3 Impairment of Key Processes	6
3.0 RESTORATION GOALS AND OBJECTIVES	8
3.1 Puget Sound Partnership	8
3.2 WRIA 7 - Snohomish (Skykomish/Snoqualmie) River Watershed – Systemwide Planning	9
3.2.1 Snohomish River Basin Salmon Conservation Plan	9
3.3 City of Gold Bar Restoration Goals and Objectives	9
3.3.1 Restoration Goals	9
3.3.1 Restoration Objectives	9
4.0 LIST OF EXISTING AND ONGOING PROJECTS AND PROGRAMS	11
4.1 WRIA 7 Participation and Other Regional Coordination	11
4.2 Comprehensive Plan Goals and Policies	11
4.3 Critical Areas Regulations	11
4.4 Stormwater Management and Planning	12
4.5 Public Involvement and Education	12
5.0 LIST OF ADDITIONAL PROJECTS AND PROGRAMS TO ACHIEVE LOCAL RESTORATION GOALS	13
5.1 Unfunded WRIA 7	13
5.2 Other Recommended Projects	13
5.2.1 Wallace River	14
5.2.2 May Creek	14
5.2.3 Skykomish River	15
6.0 PROPOSED IMPLEMENTATION TARGETS AND MONITORING METHODS	16
7.0 RESTORATION PRIORITIES	20
7.1 Priority 1 – Continue and Increase WRIA 7 Participation	20
7.2 Priority 2 – Improve Water Quality and Reduce Sediment and Pollutant Delivery	21
7.3 Priority 3 – Public Education and Involvement	21
7.4 Priority 4 – Improve Riparian Vegetation, Reduce Impervious Coverage	21
7.5 Priority 5 – Reduce Aquatic Invasive Weeds	22
7.6 Priority 6 – City Zoning, Regulatory, and Planning Policies	22
8.0 REPORT REFERENCES AND BIBLIOGRAPHY	23
9.0 LIST OF ACRONYMS AND ABBREVIATIONS	24

List of Figures

Page No.

Figure 1: Snohomish (Skykomish/Snoqualmie) River Watershed (WRIA 7) (King County) . 4

List of Tables

Page No.

Table 1: Implementation Schedule and Funding for Restoration Projects, Programs, and Plans16

Table 2: Other Recommended Projects18

1.0 INTRODUCTION

In 2009, the City of Gold Bar (City) obtained a grant (G1000017) from the Washington State Department of Ecology (Ecology) to conduct a comprehensive Shoreline Master Program (SMP) update. The 2003 Washington State Legislature established a schedule in the Revised Code of Washington (RCW) 90.58.080 for all Washington State cities and counties to update their local SMPs consistent with the Shoreline Management Act (SMA), RCW 90.58, and its implementing guidelines, Washington Administrative Code (WAC) 173-26. The State guidelines establish general procedures, goals, and standards that are adjusted to reflect local conditions by each jurisdiction as they amend their individual SMPs.

The City's SMP applies to activities in its shoreline jurisdiction. Activities that have adverse effects on the ecological functions and values of the shoreline must provide mitigation for those impacts. By law, the proponent of that activity is not required to return the subject shoreline to a condition that is better than the baseline level at the time the activity takes place.

Section 173-26-201(2)(f) WAC of the SMP Guidelines states:

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.

As set out in the SMP Guidelines above, the purpose of this Restoration Plan is to improve shorelines over time in areas where baseline conditions are degraded. Degraded shorelines are not just a result of pre-SMP activities, but also of unregulated activities and exempt development. The new SMP Guidelines also require that the City's SMP include regulations ensuring that exempt development taken together will not cause a net loss of ecological functions of the shoreline. While some actions within shoreline jurisdiction are exempt from a permit, the SMP should clearly state that those actions are not exempt from compliance with the SMA or the City's SMP.

Because the shoreline environment is also affected by activities taking place outside of the City's SMP's jurisdiction (e.g., outside of city limits, outside of the shoreline zone within the City), assembly of out-of-jurisdiction actions, programs and policies can be essential for understanding how the City fits into the larger watershed context. The latter is critical when establishing realistic goals and objectives for dynamic and highly inter-connected environments, as well as allowing the City to compensate for its limited resources by working with other partners.

As directed by the Guidelines, this Restoration Plan provides a summary of baseline shoreline conditions, lists restoration goals and objectives, and discusses existing or potential programs and projects that positively affect the shoreline environment. Finally, anticipated scheduling, funding, and monitoring of these various comprehensive restoration elements are provided. In total, implementation of the SMP with mitigation of project-related impacts in combination with this Plan for restoration of lost ecological functions that occurred prior to a specific project should result in a net improvement in the City's shoreline environment in the long term.

In addition to meeting the requirements of the Guidelines, this Restoration Plan is also intended to support the City's or other non-governmental organizations' applications for future grant funding to implement elements of this Restoration Plan. This is especially important for the City, given its small size and limited resources.

2.0 SHORELINE INVENTORY AND CHARACTERIZATION SUMMARY

2.1 Shoreline Jurisdiction

As defined by the SMA of 1971, shorelines include certain Waters of the State plus their associated "shorelands." At a minimum, the water bodies designated as shorelines of the state are streams with mean annual flows of 20 cubic feet per second (c.f.s.) or greater and lakes with areas greater than 20 acres. Shorelands are defined in RCW 90.58.030(d) as:

"...those lands extending landward for two hundred feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters which are subject to the provisions of this chapter; the same to be designated as to location by the department of ecology. Any county or city may determine that portion of a one-hundred-year-flood plain to be included in its master program as long as such portion includes, as a minimum, the floodway and the adjacent land extending landward two hundred feet therefrom. Any city or county may also include in its master program land necessary for buffers for critical areas, as defined in chapter 36.70A RCW, that occur within shorelines of the state..."

Shoreline jurisdiction within the City includes the Skykomish River, Wallace River, and May Creek, all lands that are located within 200 feet of the floodway edge or ordinary high water mark (OHWM), whichever is further landward, and any associated wetlands. The total area that will be subject to the City's SMP is approximately 187.24 acres, and encompasses approximately 25,437 lineal feet (4.82 miles) of river shoreline. The City and its jurisdictional shorelines are located within Water Resource Inventory Area (WRIA) 7, which incorporates the entire Snohomish River Watershed.

5. Analysis of Ecological Functions and Ecosystem Wide Processes
6. Land Use Analysis
7. Shoreline Management Recommendations
8. Data Gaps

The portions of the *Shoreline Analysis Report* dealing with land use, physical conditions, biological resources, and critical areas are summarized below.

2.2.1 Land Use and Physical Conditions

1. Land Use and Zoning: The City encompasses an area of approximately 1.1 square miles. Current land use in the City includes a mixture of residential, commercial, and public lands. The 2005 Comprehensive Plan land use designation map shows a mixture of residential, community business, general commercial, school, parks, open space, and public facilities designations in the City. Within the City shoreline jurisdiction for Skykomish River the land is primarily undeveloped and includes the BNSF railroad mainline. Within the City shoreline jurisdiction for Wallace River, there are single-family and duplex residential land uses with undeveloped land. Within the City shoreline jurisdiction for May Creek, there are primarily single-family residential land uses and vacant land with smaller portions of the jurisdiction made up of a mobile home park, utilities, and public uses.

There are six different proposed zoning classifications for the City of Gold Bar. They are Community Business, General Commercial, Public Spaces and Parks, Residential 12500, Residential 9600 and Residential 7500.

The lands along the Skykomish River in the City that are in shoreline jurisdiction have one single-family home and several very small parcels adjacent to the State Route 2 that are zoned as commercial. The remainder of the land along the Skykomish in the City is characterized by the BNSF railroad mainline and forested stands with well-developed forests. Zoning is divided evenly between Community Business (CB) and 12,500 Single-Family Residential (R12500).

The Wallace River shoreline jurisdiction has numerous single-family houses. Approximately 1.25 miles of the southern side of the Wallace River in the City limits is within shoreline jurisdiction except for a short segment (centrally located) that remains in the City's potential annexation area, but its shorelines are administered by Snohomish County. This comprises approximately 450 lineal feet of the Wallace River that is not included in the City's shoreline jurisdiction. The Wallace River shoreline in the City contains eighteen residential parcels and one park, Salmon Run Park. The parcels along the Wallace River are predominately zoned for residential use, R12500 (Single-Family Residential) and R9600 (Single-Family Residential), with one parcel zoned Public Space and Parks.

The portion of May Creek in the City's shoreline jurisdiction has one adjacent parcel that is zoned General Commercial (GC), currently a mobile home park; the remaining parcels are zoned R12500 R9600, and R7200. There is City-owned land on the south bank of May Creek that is the site of an undeveloped park, Evergreen Mini Park.

2. Parks and Open Space/Public Access: One parcel adjacent to the Wallace River recently changed zoning to Public Space and Parks. There are no parcels zoned Public Space and Parks adjacent to the Skykomish River or May Creek. There is City owned land on the south bank of May Creek that is the site of an undeveloped park, Evergreen Mini Park. The 1st Street Bridge crosses the May Creek channel and provides passive visual access to May Creek. Publicly owned land does not border Skykomish River, currently preventing public access to the river from within the City.
3. Shoreline Modifications: Impervious surfaces and shoreline modifications within the City's shoreline jurisdiction include roads, building footprints, bridges, and culverts. The BNSF railroad and U.S. 2 run along the north bank of the Skykomish River, and the corresponding shoreline areas have been hardened. A bridge crosses May Creek at 1st Street, and a bridge at 399th Avenue SE crosses the Wallace River.

The full *Shoreline Analysis Report* is included in the City SMP and has a more in-depth of discussion of the above topics, as well as information about transportation and utility facilities.

2.2.2 Biological Resources and Critical Areas

1. SMP Regulated Waters: The Gold Bar SMP jurisdiction includes the Skykomish River, the Wallace River, and May Creek. Under the existing SMP, shorelands adjacent to the Skykomish are designated as Natural, lands adjacent to the Wallace River are a mixture of Conservancy and Rural, and lands adjacent to May Creek are designated as Natural, Rural, and Suburban. Table I in the *Shoreline Analysis Report* includes a breakdown of existing land uses, zoning classifications, and acreages in these areas.
2. SMP Regulated Shorelands:
 - a. Wetlands: The National Wetland Inventory does not document any wetlands within Gold Bar's SMP jurisdiction. However, the City's Critical Areas Ordinance documents Freshwater Forested/Shrub Wetlands adjacent to the Skykomish River within SMP jurisdiction. The CAO's wetland mapping is based on a variety of sources, including FEMA flood data. Natural Resource Conservation Service soil maps indicate the presence of hydric soils in these areas.
 - b. Floodways and Floodplains: Due to the presence of the Skykomish River, the Wallace River, and May Creek in a relatively small area, flood hazard areas are common throughout Gold Bar. The most extensive areas are the floodplain and floodway associated with the Skykomish River, the city is partially protected from flooding in this are because of the barrier provided by the BNSF railroad and US 2. Both the Wallace River and May Creek have associated floodways and flood plains that form the basis for the SMP jurisdiction in these areas.

2.2.3 Impairment of Key Processes

Three key functions have been altered in the City's shoreline jurisdiction. The summary of key functions comes from Table 8 in the City's 2012 Shoreline Analysis Report.

The key functions for the City's shoreline are:

1. Water Quantity
 - a. Lack of significant flood storage
2. Water Quality Functions
 - a. Narrow or missing vegetative buffers
 - b. Lack of riparian shading
 - c. Bank erosion
 - d. Water quality may be impaired
3. Habitat
 - a. Lack of vegetative diversity
 - b. Culverts may be fish barriers
 - c. Terrestrial habitat is at risk for further segmenting

These functions are being threatened by development and logging outside of the city, as well as by changes within the City such as loss of vegetation and increased impervious surfaces.

The full *Shoreline Analysis Report* is included in the City's SMP and has a more in-depth of discussion of the above topics, as well as information about habitat, aquifer recharge areas, and other critical areas.

3.0 RESTORATION GOALS AND OBJECTIVES

3.1 Puget Sound Partnership

In response to the challenges facing the Puget Sound, in 2007 the Legislature created the Puget Sound Partnership (Partnership) to protect and restore Puget Sound and its spectacular diversity of life now and for future generations by 2020. The Partnership developed the following strategic priorities in its 2008 Action Plan; last updated May 27, 2009:

Priority A: Protect the intact ecosystem processes, structures, and functions that sustain Puget Sound. Avoiding problems before they occur is the best and most cost-effective approach to ecosystem health.

Priority B: Restore the ecosystem processes, structures, and functions that sustain Puget Sound. Protecting what we have left is not sufficient, and significant effort at an unprecedented scale is needed to undo past damage.

Priority C: Prevent water pollution at its source. Many of our efforts have focused on cleaning up degraded waters and sediments, but insufficient resources have been devoted to stopping pollutants before they reach our rivers, beaches, and species.

Priority D: Work together as a coordinated system to ensure that activities and funding are focused on the most urgent and important problems facing the region. Many of the programs and laws now used to regulate or support activities in Puget Sound were established on a piecemeal basis to address individual problems. Strategies that will help to address problems more effectively at an ecosystem scale include improved coordination of land use planning, water supply, ecosystem protection, transportation, and species recovery plans. The Action Agenda calls for the reform of environmental regulatory programs as well as improvements to the capacity of local partners to implement actions and compliance efforts across Puget Sound.

Priority E: Build an implementation, monitoring, and accountability management system. This includes:

- Using a performance management system with adaptive management and clear pathways for decision making, coordinated monitoring, accountability for action, and coordinated data management;
- Providing sufficient, stable funding focused on priority actions;
- Implementing a focused scientific program with priorities for research, and developing appropriate measures to improve understanding of the ecosystem and the effectiveness of our actions; and
- Using outreach and education to foster long-term changes in public attitudes and behavior.

3.2 WRIA 7 - Snohomish (Skykomish/Snoqualmie) River Watershed – Systemwide Planning

The WRIA 7 – Snohomish (Skykomish/Snoqualmie) River Watershed covers portions of both King and Snohomish Counties. The watershed is comprised mainly of freshwater ecosystems, though a portion of the Puget Sound shoreline is included near the mouth of the Snohomish River. The City of Gold Bar is located in the Upper Mainstem Skykomish, May Creek, and Upper Wallace River subbasins in the northern central portion of the watershed. While some watershed planning efforts have occurred, WRIA 7 does not currently plan under the State Watershed Management Act.

3.2.1 Snohomish River Basin Salmon Conservation Plan

The *Snohomish River Basin Salmon Conservation Plan* was begun in 1999 as a joint effort of the Snoqualmie Watershed Forum, the Snohomish Basin Salmon Recovery Forum, and various Native American tribes, business, non-profit organizations, citizen's groups, and local governments, including the City of Gold Bar. The final plan was published in June 2005. While the plan aims to improve habitat for all salmonids, it is specifically focused on strategies to foster the recovery of Chinook and Coho salmon and bull trout.

3.3 City of Gold Bar Restoration Goals and Objectives

The *Snohomish River Basin Salmon Conservation Plan* goals work in combination with the results of the City of Gold Bar's *Shoreline Analysis Report*, and along with the direction of Ecology's SMP Guidelines, are the foundation for the following goals and objectives of the City's restoration strategy.

3.3.1 Restoration Goals

Goal 1 – Maintain, restore, or enhance watershed processes, including sediment, water, wood, light, and nutrient delivery, movement and loss.

Goal 2 – Maintain or enhance fish and wildlife habitat during all life stages and maintain functional corridors linking these habitats.

Goal 3 – Contribute to conservation and recovery of Chinook salmon and other anadromous fish, focusing on preserving, protecting and restoring spawning and rearing habitat in the Skykomish River, Wallace River, and May Creek with the intent to recover listed species, including sustainable, genetically diverse, harvestable populations of naturally spawning Chinook salmon.

3.3.1 Restoration Objectives

Objective 1 – Improve the health of shoreline water bodies by managing the quality and quantity of stormwater runoff, consistent at a minimum with the latest *Washington State Department of Ecology Stormwater Management Manual for Western Washington*. Make additional efforts to meet and maintain state and county water quality standards in contributing systems.

Objective 2 – Improve tributary stream health by eliminating man-made barriers to anadromous fish passage, preventing the creation of new barriers, and providing for transport of water, sediment and organic matter at all stream crossings.

Objective 3 – Improve tributary stream and lake health by identifying hardened and eroding lakeshores and stream banks, and correcting to the extent feasible with bioengineered stabilization solutions.

Objective 4 – Improve tributary stream and lake health by increasing large woody debris recruitment potential through plantings of trees in the riparian corridors, particularly conifers. Where feasible, install large woody debris to meet short-term needs.

Objective 5 – Increase quality, width and diversity of native vegetation in protected corridors adjacent to stream and lake habitats so as to provide safe migration pathways for fish and wildlife, food, nest sites, shade, perches, and organic debris. Strive to control non-indigenous plants or weeds that are proven harmful to native vegetation or habitats.

Objective 6 – Continue to work collaboratively with other jurisdictions and stakeholders in WRIA 7 to implement the *Snohomish River Basin Salmon Conservation Plan*.

Objective 7 – Seek funding for various restoration actions and programs from local sources and by working with other WRIA 7 jurisdictions and stakeholders to seek federal, state, grant and other funding opportunities.

Objective 8 – Adopt a public education plan to inform private property owners in the shoreline zone and in the remainder of the City about the effects of land management practices and other unregulated activities (such as vegetation removal, pesticide/herbicide use, car washing) on fish and wildlife habitats.

Objective 9 – Where feasible, protect, enhance, and restore riparian areas surrounding wetlands where functions have been lost or compromised.

Objective 10 – Participate in area-wide efforts to reduce populations of non-native aquatic vegetation in Skykomish River, Wallace River, and May Creek.

Objective 11 – Pursue restoration activities that also serve to mitigate flooding by removing non-native vegetation from Skykomish River, Wallace River, and May Creek.

4.0 LIST OF EXISTING AND ONGOING PROJECTS AND PROGRAMS

The following series of existing projects and programs are generally organized from the larger watershed scale to City-scale, including City projects and programs that are active in the City area.

4.1 WRIA 7 Participation and Other Regional Coordination

The City is a member of the Snohomish Basin Salmon Recovery Forum and was involved in the 2005 adoption of the *Snohomish River Basin Salmon Conservation Plan*, though it currently does not supply a representative to the Forum. The forum members are responsible for implementing the goals and policies of the *Snohomish River Basin Salmon Conservation Plan*. The City should work with volunteers to be a part of the forum's activities.

4.2 Comprehensive Plan Goals and Policies

The City completed a major update to its Comprehensive Plan in 2005 pursuant to Growth Management Act (GMA) requirements, and additional amendments were made in 2009. The updated Comprehensive Plan contains a number of general and specific goals and policies that direct the City to permit and condition development in such a way that the natural environment is preserved and enhanced. Specific relevant goals include:

Goal LU-G7 – Preserve natural open space, including surrounding forest and agricultural lands, for scenic and aesthetic enjoyment, to protect and preserve environmentally sensitive areas, and to enhance the quality of life of Gold Bar residents.

Goal LU-G8 – Promote community-wide stewardship of the natural environment.

Goal LU-G9 – Protect and enhance critical areas, and give special consideration to measures to protect and enhance habitat for anadromous and salmonid fish, consistent with the best available science and in accordance with RCW 36.70A.172.

Policy LU-P39 – River and stream channels should be preserved, protected, and enhanced for their hydraulic, ecological, and aesthetic functions in accordance with the Shoreline Master Program and sensitive areas regulations.

Policy LU-P42 – The City shall utilize the policies and guidelines of the adopted Shoreline Management Master Program when reviewing development in the shoreline area.

Policy PTR-P24 – The City shall ensure that park development adjacent to the Skykomish River, Wallace River, May Creek, and other City streams protects and/or enhances salmon habitat.

4.3 Critical Areas Regulations

The City's Critical Areas Ordinance (Ord. No. 593) was adopted in March 2005 to provide a high level of protection to critical areas in the City, particularly streams and wetlands. Management

of the City's critical areas using these regulations should help insure that ecological functions and values are not degraded, and impacts to critical areas are mitigated. These critical areas regulations are one important tool that will help the City meet its restoration goals, but do not reflect current Ecology requirements. To regulate critical areas found within the shoreline zone, the City should adopt regulations and policies in the SMP that meet the current state requirements for critical area protection.

4.4 Stormwater Management and Planning

In 2002, the City adopted by reference the Department of Ecology's *Stormwater Management Manual for the Puget Sound Basin* as part of its construction and development standards. This manual has since been revised by Ecology in 2005 and 2012. As part of the new NPDES Municipal Stormwater Permit, the City is required to bring their stormwater regulations up to date and incorporate Low Impact Development as the first choice for stormwater management unless infeasible.

4.5 Public Involvement and Education

The City's Comprehensive Plan identifies several policy statements that encourage public involvement and education in the establishment of new essential public facilities, amendments to City plans, and recreational facility development. These can support voluntary restoration efforts.

Policy PTR-G3 – Preserve natural open space for scenic and aesthetic enjoyment, to protect and preserve environmentally sensitive areas, and to enhance the quality of life of Gold Bar residents.

Policy PTR-G5 – Create and promote opportunities for private contributions and volunteerism in the acquisition, construction, operation, and maintenance of parks, trails, and recreation facilities.

Policy PTR-P39 – The City of Gold Bar shall provide and publicize opportunities for public participation in the planning of new or upgraded parks, trails, and recreation facilities.

5.0 LIST OF ADDITIONAL PROJECTS AND PROGRAMS TO ACHIEVE LOCAL RESTORATION GOALS

The following series of additional projects and programs are generally organized from the larger watershed scale to City-scale, including City projects and programs.

5.1 Unfunded WRIA 7

The *Snohomish River Basin Salmon Conservation Plan* groups the watershed's subbasins based on common characteristics of location, condition of watershed processes, and salmonid use, and assigns restoration priorities to each group. While the plan does not list any specific recommended projects within the city, Gold Bar is located at the intersection of three subbasins, each classified by the plan as having different restoration priorities. Locally initiated restoration and enhancement projects should be designed to further these priorities.

Upper Mainstem Skykomish – Mainstem Primary Restoration

The highest restoration priorities in this subbasin group are prevention of further shoreline degradation, protection of floodplain areas, preservation of hydrologic and sediment processes, removal of manmade in-stream barriers, reconnection of off-channel habitat, and restoration of shoreline conditions and riparian habitat. Secondary priorities include addressing water quality impacts and enhancing in-stream structural components, such as large woody debris.

May Creek – Mainstem Secondary Restoration

The highest restoration priorities in this subbasin group are preserving and restoring hydrologic and sediment processes. This can be accomplished by preserving and restoring wetlands and forest cover, as well as removing impervious surfaces where possible. Secondary and tertiary priorities include protection of floodplain areas, removal of manmade in-stream barriers and restoration of fish and wildlife habitat in shoreline and riparian areas.

Upper Wallace River – Headwaters Secondary Restoration

The highest restoration priorities in this subbasin group are preserving and restoring hydrologic and sediment processes. This can be accomplished by preserving and restoring wetlands and forest cover, as well as removing impervious surfaces where possible. Secondary and tertiary priorities include protection of riparian habitat and multi-threaded streams, removal of manmade in-stream barriers and bank armoring, and placement of large woody debris in areas with degraded riparian conditions.

5.2 Other Recommended Projects

The portion of May Creek and the Wallace River within the City could be enhanced on both public and private land by vegetation planting with a buffer of native trees and shrubs, particularly conifer species, as well as placement of large woody debris to enhance in-stream fish habitat. In cooperation with others, the City should pursue grant funding for a demonstration riparian habitat enhancement project to reduce non-native vegetation and increase shade-producing vegetation on city-owned property. Such a project could be used as an example for other projects in the shoreline. On privately owned property, restoration

activities would need to be voluntary and acceptable to the landowner. Continued preservation and protection of the remaining functions would be appropriate as well. Control and monitoring of aquatic invasive vegetation should continue.

The following is partially developed from a list of opportunity areas identified within the City's *Shoreline Analysis Report*. The list of potential projects was created after assessing field conditions and it is intended to contribute to improvement of impaired functions.

5.2.1. Wallace River

The portion of the Wallace River within city limits is characterized primarily by residences, open space, and the presence of a bridge at 399th Avenue SE. Shoreline modifications along the Wallace River consist of cleared vegetation along the shoreline and the aforementioned bridge. Restoration opportunities in this area include construction of the proposed PSE trail, documented in the City's Comprehensive Plan, which would have recreational value and would provide public access to the shoreline. Additionally, Salmon Run Park, which is currently undeveloped, could be developed to provide shoreline recreation and public access, as well as highlight LID, Green Building, and other shoreline-compatible development techniques.

5.2.2. May Creek

As described in the *Shoreline Analysis Report*, the May Creek shoreline remains in a relatively natural state, except for some areas of cleared vegetation on agricultural lands near the western end of the City. No significant armoring or stream channelization has been observed. Preservation of the existing shoreline vegetation, tree canopy, and the shoreline ecological functions they provide should be a high priority along May Creek.

Due to the primarily private ownership pattern of the land along May Creek, most restoration and enhancement of shoreline functions will have to be conducted either voluntarily by private landowners or in public-private partnership with the City. Several parcels along May Creek would be good conservation acquisitions if City funds are available and the owners are willing to sell:

- The forested parcel located at the junction of May Creek and a tributary stream that connects to the Skykomish River to the south could provide public shoreline access and educational opportunities for wildlife viewing.
- The vacant parcel just west of 1st Street could be used for public access and/or stormwater management for nearby development.
- The mobile home park on US 2, near the western end of the City, has a large amount of open space in the rear of the property that could be used to provide public access to May Creek and restore native shoreline vegetation on what is currently a mowed lawn.

In addition to these property-specific opportunities, landowners throughout the May Creek reaches should be encouraged to preserve their existing shoreline vegetation and riparian habitat to prevent degradation of shoreline ecological function in these areas.

5.2.3. Skykomish River

As described in the *Shoreline Analysis Report*, the City's SMP jurisdiction along the Skykomish River extends from the westward extension of 164th Street to the southward extension of Nugget Road and includes those portions of the Skykomish floodplain that fall within City limits. This area contains wetlands, hydric soils, and a riparian buffer classified by WDFW as a Fish and Wildlife Habitat Conservation Area.

Because of the presence of US 2 and the BNSF railroad, which cannot be realistically be altered, opportunities for enhancement and restoration in this area are focused primarily on education and assistance to property owners to maintain water quality in the Skykomish and prevent further modification of the shoreline. Property owners should be encouraged to maintain their existing native vegetation and limit their clearing and ground disturbance. The City should provide adequate wastewater treatment in the area, including regular inspections of septic systems, and educate owners on the importance of preserving the natural shoreline of the Skykomish and its water quality.

6.0 PROPOSED IMPLEMENTATION TARGETS AND MONITORING METHODS

As previously noted, the City's shoreline jurisdiction consists of mostly single-family residential properties and undeveloped land, with mobile home parks and utilities as secondary land uses. Restoration priorities, therefore, should be focused on landowner education and public-private partnerships to preserve and improve shoreline ecological functions on private property, as well as ensure that shoreline functions are not degraded as undeveloped property is converted to other uses.

The following table outlines a possible schedule and funding sources for implementation of a variety of efforts that could improve shoreline ecological function that are described in previous sections of this report.

Table 1: Implementation Schedule and Funding for Restoration Projects, Programs, and Plans

Restoration Project/Program/Plan	Schedule	Funding Source or Commitment
4.1 WRIA 7 Participation and Other Regional Coordination	Ongoing	The City is a member of the Snohomish Basin Salmon Recovery Forum, though the City does not currently supply a representative. Priority should be given to increasing involvement in Forum activities and implementing the goals of the <i>Snohomish River Basin Salmon Conservation Plan</i> .
4.2 Comprehensive Plan Policies	Updated in 2009	The City commits substantial staff time in the course of project and program reviews to determine consistency and compliance with the updated Comprehensive Plan.
4.3 Critical Areas Regulations	Adopted in 2005	The City commits substantial staff time in the course of project and program reviews to determine consistency and compliance with their CAO. As funding becomes available, the City should update its CAO to meet the current Ecology requirements.
4.4 Stormwater Planning	Ongoing, Update in progress	The City last updated its stormwater regulations when it adopted the 2005 Ecology <i>Stormwater Management Manual for the Puget Sound</i> . Ecology has updated their stormwater manuals twice since this time and has issued updated Phase II NPDES Permits in 2012. The City will need to update its stormwater regulations to comply with the new Phase II permit, including adoption of the latest version of the Ecology's <i>Stormwater Manual for Western Washington</i> .
4.5 Public Education/ Outreach	Ongoing	Currently, limited staff time and materials are available to develop public education and outreach efforts to educate the public and broaden the interest in protecting and enhancing local environmental resources. On-going and future education efforts should be coordinated with collaborating agencies, such as the Snohomish Basin Salmon Recovery

Restoration Project/Program/Plan	Schedule	Funding Source or Commitment
		Forum, Puget Sound Energy, and Snohomish County. Funding sources should include grant funding, monetary donations, and volunteer hours.
5.1 Unfunded WRIA 7 Projects	As funds and opportunity allow	Although no specific projects are identified within the City by the <i>Snohomish River Basin Salmon Conservation Plan</i> , several actions could be taken to achieve broad restoration goals for improvements to habitat and ecological functions. Projects could be funded by the City, collaborating agencies, and non-profit organizations, and grants as projects and funding opportunities arise.
5.2 Other Recommended Projects	As funds and opportunity allow	Projects identified in this section would likely be implemented either when grant funds are obtained, when partnerships are formed between the City and other agencies or non-profit groups, or as may be required by the CAO and the SMP during project-level reviews by the City. While the recommended property acquisitions may not be feasible in the short-term due to funding restrictions, public education of shoreline property owners to encourage preservation of existing vegetation, habitat, and water quality would be an appropriate starting point. Table 2 lists other recommended projects.

Table 2 lists the restoration project timeline for other recommended projects; projects are ranked by short term, medium term, and long term. These projects should be considered to be ranked by priority. The funding groups have application deadlines that also need to be taken into consideration when timing projects.

Short-term restoration projects include those that could be implemented by local landowners and volunteers and that would benefit the areas that are most in need. These projects could be implemented almost immediately or within a few months, depending on grant cycles. This would include:

- National Resource Conservation Service for wetland easements and restoration
- Water Quality Funding under the DOE for wetland habitat preservation and public education
- Fish and Wildlife Species of Concern for land acquisition and habitat preservation
- The Landowner Incentive Program under the Washington State Department of Fish and Wildlife

Medium-term restoration projects could include those that enhance City’s shorelines that have been designated or acquired previously. These would include:

- Flood Control Funding under the Department of Ecology for habitat protection and enhancement
- Aquatic Lands Enhancement Account funding under the Department of Natural Resources

Longer-term restoration projects could be those that require coordination with other jurisdictions or that cover larger land areas. These projects may be more difficult to implement and could require more planning. These would include:

- Community Salmon Fund to benefit watershed health
- National Fire plan to reduce vegetation at risk
- Cooperative Endangered Species Fund to protect lands for habitat conservation
- EPA Assessment and Watershed protection grants for erosion and sediment control
- Bring Back the Natives with the National Fish and Wildlife Foundation

Table 2: Other Recommended Projects

Other Recommended Projects	Restoration Goal	Strategy for Implementation
Short Term (1 – 3 years)		
Wetland Easement and Restoration (NRCS)	Preserve and Restore Habitat Functions	Backyard Sanctuary Program
Wetland habitat preservation and public education (Ecology)	Preserve and Restore Habitat Functions	Community Volunteers, Resource Directory
Land Acquisition (WDFW)	Preserve and improve physical and visual public access to the shoreline	Shore Stewards Education
Landowner Incentive Program (WDFW)	Multiple Goals	Shore Stewards Education, Backyard Sanctuary Program
Medium Term (3-5 years)		
Flood Control Funding (Ecology)	Reduce Impacts of Flooding Events	Capital Facilities Program
Aquatic Lands Enhancement (WDNR)	Preserve and Restore Habitat Functions	Volunteer Coordination, Backyard Sanctuary Program
Long Term (5-10 years)		
Watershed Health (Community Salmon Fund)	Protect and Improve Water Quality	Resource Directory, Backyard Sanctuary Program
Reduce Vegetation at Risk (National Fire Plan)	Preserve Natural Areas and Vegetation	Resource Directory, Shore Stewards Education
Habitat Conservation (Cooperative Endangered Species Fund)	Preserve and Restore Habitat Functions	Resource Directory, Backyard Sanctuary Program
Erosion and Sediment Control (EPA)	Protect and Improve Water Quality	Capital Facilities Program
Bring Back the Natives (NFWF)	Preserve and Restore Habitat Functions	Volunteer Coordination, Resource Directory

The City is required to monitor development under the SMP to ensure no net loss. We recommend that City planning staff track all land use and development activity, including exemptions, within shoreline jurisdiction, and incorporate actions and programs of City departments as well. We recommend that a report be assembled that provides basic project information, including location, permit type issued, project description, impacts, mitigation (if any), and monitoring outcomes as appropriate. Examples of data categories might include square feet of non-native vegetation removed; square feet of native vegetation planted or maintained; reductions in chemical usage to maintain turf; linear feet of eroding stream bank

stabilized through plantings; linear feet of shoreline armoring removed; or number of fish passage barriers corrected.

The staff report could be assembled to coincide with Comprehensive Plan updates and, following the goals and objectives of the SMP, the report could be used to determine whether implementation of the SMP is meeting the basic goal of no net loss of ecological functions relative to the baseline condition established in the *Shoreline Analysis Report*.

In the long term, the City should be able to demonstrate a net improvement in its shoreline environment. Based on the results of this assessment, the City may make recommendations for changes to the SMP.

7.0 RESTORATION PRIORITIES

The process of prioritizing actions for restoration of the City's shoreline areas involves balancing ecological goals with a variety of site-specific constraints. Briefly restated, the City's goals include 1) protecting watershed processes, 2) protecting fish and wildlife habitat, and 3) contributing to Chinook conservation efforts. Constraints that are specific to the City include a moderately developed residential shoreline area along Skykomish River, Wallace River, and May Creek. While these areas may already offer reasonable ecological functions, they include opportunities to enhance ecological functions further.

These goals and constraints were used to develop a hierarchy of restoration actions to rank different types of projects or programs associated with shoreline restoration. Programmatic actions, like continuing WRIA 7 involvement and conducting outreach programs to local residents, tend to receive relatively high priority as opposed to restoration actions involving small private landowners. Other factors that influenced the hierarchy are based on scientific recommendations specific to WRIA 7, potential funding sources, and the projected level of public benefit. These priorities are discussed in the subsections that follow.

Although restoration project/program scheduling is summarized in the previous section in Table 1, the actual order of implementation may not always correspond with the priority level assigned to that project/program. This discrepancy is caused by a variety of obstacles that interfere with efforts to implement projects in the exact order of their perceived priority. Some projects, such as those associated with riparian planting, are relatively inexpensive and easy to permit, and should be implemented over the short and intermediate term, despite the perception of lower priority than projects involving extensive shoreline restoration or large-scale capital improvement projects.

Straightforward projects with available funding should be initiated immediately for the worthwhile benefits they provide. Permitting, design, site access authorization, and funding for the larger, more complicated projects can occur while the smaller projects are under way.

7.1 Priority 1 – Continue and Increase WRIA 7 Participation

Of basic importance is the continuation of implementation of the goals expressed in the *Snohomish River Basin Salmon Conservation Plan*. While the City is a member of the Snohomish Basin Recovery Forum, which co-authored the plan, the City does not currently have a designated representative. The City should explore ways to increase participation in this regional effort, which may include expanding collaborative work with other members of the forum, including neighboring jurisdictions and other WRIA 7 stakeholders. This process provides an opportunity for the City to keep in touch with its role on a basin-wide scale and to influence habitat conditions beyond its borders, which, in turn, come back to influence water quality and quantity and habitat issues within the City.

7.2 Priority 2 – Improve Water Quality and Reduce Sediment and Pollutant Delivery

Skykomish River, Wallace River, and May Creek have the potential to provide fish and wildlife habitat. They are also a common receiving body for non-point source pollution, which in turn delivers those contaminants to shoreline water bodies.

Incentives to consider include education of property owners about the Snohomish County Farm and Agriculture Conservation Program and the Current Use Open Space assessment programs; stormwater fee reduction programs to encourage forest cover and low impact development; and permit streamlining, fee waivers, and zoning flexibility for projects that include restoration. These recommendations also emphasize the use of low impact development techniques, onsite stormwater detention for new and redeveloped projects, development of a community-wide sanitary sewer system, and control of point sources that discharge directly into surface waters. They involve protecting and restoring forest cover, riparian buffers, wetlands, and creek mouths by revising and enforcing the City's CAO and SMP while also providing incentives and flexible development tools.

7.3 Priority 3 – Public Education and Involvement

Public education and involvement should be a high priority in the City. Opportunities for restoration on public property exist along Wallace River and May Creek, but are limited along Skykomish River because it is under private ownership. Therefore, in order to achieve the goals and objectives set forth in this Restoration Plan, the City should focus on balancing restoration on public and private land.

Potential restoration projects that may occur along Skykomish River, such as the a demonstration riparian habitat enhancement project to reduce non-native vegetation and increase shade-producing vegetation in the City Park, as described in Section 5.2 include native vegetation enhancement and installation of large woody debris to increase available fish habitat. Providing education opportunities and involving the public is important to success. This could possibly entail the development of a long-term Public Education and Outreach Plan to gain public support. Voluntary restoration efforts on private property would also benefit from public outreach and education. This could include local workshops to educate shoreline property owners and other shoreline users on maintaining healthy shoreline environments, promoting enhancement and restoration opportunities, and use of low impact development techniques.

7.4 Priority 4 – Improve Riparian Vegetation, Reduce Impervious Coverage

Similar to the priority listed above to improve water quality and reduce sediment and pollutant delivery, this priority emphasizes improving riparian vegetation and reducing impervious surfaces. Section 5.2 above lists areas where improvements to riparian vegetative cover and reductions in impervious surfaces are warranted.

7.5 Priority 5 – Reduce Aquatic Invasive Weeds

Control and monitoring of aquatic invasive weeds from Wallace River and May Creek is emphasized in Section 5.2. The creek and lake have experienced growth of non-native and oftentimes invasive aquatic vegetation. Aquatic weeds tend to reduce dissolved oxygen to lethal levels for fish, hampering foraging opportunities.

7.6 Priority 6 – City Zoning, Regulatory, and Planning Policies

City Zoning, Regulatory, and Planning Policies are listed as being of lower priority because they have been the subject of recent review and updates. Notably, the City's CAO was recently updated in 2004 consistent with the Best Available Science for critical areas, including those within the shoreline zone.

The City is working on receiving its final NPDES Phase II permit from Ecology. The NPDES Phase II permit is required to cover the City's stormwater discharges into regulated lakes and streams. Under the conditions of the permit, it is expected that the City must protect and improve water quality through public education and outreach, detection and elimination of illicit non-stormwater discharges, management and regulation of construction site runoff, management and regulation of runoff from new development and redevelopment, and pollution prevention and maintenance for municipal operations.

The City has adopted Ecology's 2005 *Stormwater Management Manual for Western Washington*, as the NPDES Phase II permit requires. The DOE Manual references the *Low Impact Development: Technical Guidance Manual for Puget Sound* as a viable source of appropriate low impact techniques for drainage control. The City should consider exploring broader code revisions that would encourage, or in some cases possibly require, Low Impact Development techniques in the shoreline area as detailed in the *Low Impact Development: Technical Guidance Manual for Puget Sound*.

8.0 REPORT REFERENCES AND BIBLIOGRAPHY

City of Gold Bar. 2005. City of Gold Bar Comprehensive Plan. Adopted January 18, 2005. Amended 2009.

City of Gold Bar. 2005. City of Gold Bar Critical Areas Ordinance Update – Ordinance No. 593. Adopted March 15, 2005.

Otak, Inc. and AHBL, Inc. 2011, revised in 2012. *Shoreline Analysis Report – Including Shoreline Inventory and Characterization for City of Gold Bar’s Shorelines: Skykomish River, Wallace River, and May Creek*. Prepared for City of Gold Bar.

Puget Sound Partnership. 2008, updated May 27, 2009. Puget Sound Action Agenda: Protecting and Restoring the Puget Sound Ecosystem by 2020.

Snohomish Basin Salmon Recovery Forum. June 2005. Snohomish River Basin Salmon Conservation Plan. Snohomish County Department of Public Works, Surface Water Management Division. Everett, WA.

9.0 LIST OF ACRONYMS AND ABBREVIATIONS

CAO.....	Critical Areas Ordinance
City.....	City of Gold Bar
C.F.S.....	Cubic Feet per Second
Ecology.....	Washington State Department of Ecology
GBCC.....	Gold Bar City Code
GMA.....	Growth Management Act
NFWF.....	National Fish and Wildlife Federation
NPDES.....	National Pollutant Discharge Elimination System
NRCS.....	National Resources Conservation Service
Partnership.....	Puget Sound Partnership
RCW.....	Revised Code of Washington
SMA.....	Shoreline Management Act
SMP.....	Shoreline Master Program
WAC.....	Washington Administrative Code
WDFW.....	Washington State Department of Fish and Wildlife
WDNR.....	Washington State Department of Natural Resources
WRIA.....	Water Resource Inventory Area