Restoration Plan
Town of Concrete Shoreline Restoration Plan

Prepared for:

Town of Concrete
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Grant No. G1000082

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January 28, 2013
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Introduction

This restoration plan has been prepared consistent with the requirements of the Washington State Department of Ecology shoreline management guidelines (WAC 173-26-201(2)(f)). The guidelines require restoration plans to address the six subjects outlined below. The plan is intended to provide an overall improvement in shoreline/riparian functions over time when compared to the existing baseline conditions established under the Shoreline Inventory and Characterization (December 2011).

1. Identification of Degraded Areas, Impaired Ecological Functions, and Sites With Potential for Ecological Restoration

The Town’s shorelines are located along the Skagit and Baker Rivers and are riparian in character. Therefore shoreline ecological functions relate directly to the commonly recognized riparian functions described in the Shoreline Inventory and Characterization. Riparian functions include water quality, bank stabilization, shade and temperature, microclimate, wildlife habitat, instream habitat, productivity, storage and conveyance. Impairment of these functions results largely from human disturbance along the river banks and is linked closely to removal of native plant communities and replacement of vegetated riparian corridors with impervious surfaces. Utility, mining and processing, transportation and commercial development have contributed to impairment of shoreline functions within the shoreline areas of the Town. Discussion relating to impairment of shoreline functions is framed in the context of the riparian functions outlined under subsections 3.3 and 3.4 of the Shoreline Inventory and Characterization.

1.1 Assessment by Planning Segment

Five planning segments were identified and assessed in the Town of Concrete Shoreline Inventory and Characterization. The planning segments were identified based on distinct geographic boundaries, similar shoreline characteristics, land use patterns and comprehensive plan and zoning designations.

1.1.1 Segment 1 - The Lake Shannon Segment is located north (upstream) of the Lower Baker River Dam and extends north to the City’s municipal boundary. Lake Shannon is a reservoir created by the Lower Baker River Dam. While the reservoir is characterized as a lake it is an impoundment of the Baker River. The Lake Shannon Segment constitutes approximately 880 linear feet of shoreline and a shoreline jurisdictional area of approximately 17.77 acres. The shoreline is lacustrine in character. The lake level rises and falls seasonally and in conjunction with rainfall/snow melt events and through operation of the Baker River Dams. Comprehensive plan and zoning designations are public lands/open space. The only significant development is associated with the Lower Baker Dam including the log boom and surface fish collector.

1.1.2 Segment 2 - The Baker River Canyon Segment is located south (downstream) of the Lower Baker Dam and extends south to and including the Thompson Bridge. The right (west) bank of the segment is riverine and relatively natural in character while the left
(east bank) includes the Lower Baker powerhouse and powerhouse access road. The Baker River Canyon Segment constitutes approximately 2,860 linear feet of shoreline and a jurisdictional area of approximately 43 acres. Comprehensive plan and zoning designations are public lands/open space along the right bank and public lands/open space and industrial along the left bank.

1.1.3 Segment 3 - The Baker River Channel Segment is located south (downstream of the Thompson Bridge and extends southward past the SR-20 Bridge. The left (east) bank continues on to the confluence with the Skagit River while the right (west) bank ends at the City’s municipal boundary approximately 350 feet north of the confluence. The segment is riverine in character and is maintained in a channelized condition. Both banks are armored with rock. Impervious access roads are present near the top of both banks. The area along the left bank from the Thompson Bridge south to SR-20 is utilized by Puget Sound Energy in conjunction with Baker River Hydropower development. Shoreline jurisdiction within this segment includes areas of designated floodway and contiguous floodplain. The Baker River Channel Segment consists of approximately 2,420 linear feet of shoreline and a jurisdictional area of approximately 36.7 acres. Comprehensive plan and zoning designations consist of public lands along the right bank and industrial along the left bank.

1.1.4 Segment 4 - The Upper Skagit River Segment extends from the Baker/Skagit confluence upstream (east) to the City’s eastern municipal boundary. The shoreline itself is riverine and relatively natural in character, however, portions of the floodway and contiguous floodplain have been subject to residential and commercial development. The segment includes the two existing public shoreline access areas in the City. The access sites are owned by the Washington State Department of Transportation Fish and Wildlife, and Shoreline jurisdiction within this segment includes areas of designated floodway and contiguous floodplain. The segment consists of 1100 linear feet of shoreline and 16.7 acres. Comprehensive plan and zonings designations are public lands, commercial, light industrial, and residential.

1.1.5 Segment 5 - The Lower Skagit River Segment is located approximately .5 miles downstream from the Baker/Skagit confluence. The shoreline is riverine in character and exists in a natural condition that provides a full suite of riparian functions including a side channel which may be a remnant of the Little Baker River. Shoreline jurisdiction within this segment includes areas of designated floodway and contiguous floodplain. The segment includes a shoreline area of 1540 linear feet and an area of 23.3 acres. There is no development within the shoreline area. The comprehensive plan and zonings designation is open space.

The five planning segments are compared on the following table. The segments are delineated on an aerial photograph following the table. The complete inventory is available for review at the Concrete Town Hall.
<table>
<thead>
<tr>
<th>Segment</th>
<th>Size</th>
<th>Condition</th>
<th>Comp/Zoning</th>
<th>Land Use</th>
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<tr>
<td>1. Lk. Shannon</td>
<td>880-ft 17.7-acres</td>
<td>Lake (Reservoir)</td>
<td>Open Space</td>
<td>Hydropower Open Space</td>
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<tr>
<td>2. Baker Canyon</td>
<td>2,860-ft 43-acres</td>
<td>River Natural/Altered</td>
<td>Open space Residential Industrial</td>
<td>Open Space Residential (2) Hydropower</td>
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<tr>
<td>3. Baker Channel</td>
<td>2,420-ft 36.7-acres</td>
<td>River Channelized Armored Impervious road surfaces</td>
<td>Public lands Industrial Comm/Lt.Ind.</td>
<td>Public Lands Hydropower Unimproved public access</td>
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<tr>
<td>4. Upper Skagit</td>
<td>1,100-ft 16.7-acres</td>
<td>River Natural shoreline Developed floodway-Floodplain</td>
<td>Public lands Residential Commercial Light Industrial</td>
<td>Public lands (river access) Residential (1) Commercial Light Industrial</td>
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<tr>
<td>5. Lower Skagit</td>
<td>1,540-ft 23.3-acres</td>
<td>River Natural Shoreline</td>
<td>Open space</td>
<td>Open space</td>
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<tr>
<td><strong>Area Totals:</strong></td>
<td><strong>8,800-ft 122.4-acres</strong></td>
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**Shoreline Planning Segments**

1. Lake Shannon
2. Baker River Canyon
3. Baker River Channel
4. Upper Skagit
5. Lower Skagit
1.2 Causes of Shoreline/Riparian Impairment
A single shoreline use (hydropower) dominates the majority of the Town’s shorelines. Hydropower and other historic and existing land uses have contributed to the impairment of shoreline/riparian ecological functions within the town’s shoreline areas.

1.2.1 Hydropower – Hydropower development has resulted in significant impairment to riparian functions along the Baker and Skagit Rivers. Although operators (Puget Sound Energy, Seattle City Light) have worked diligently to minimize impacts on fish, dams have reduced the magnitude of peak flows in the Skagit River by an estimated 50%. Reduction of peak flows impairs sediment and water transport processes, as well as the development and maintenance of off channel habitats, woody debris recruitment and other riparian functions (Watershed Company, May 2007). PSE received a 50-year operating license from the Federal Energy Regulatory Commission (FERC No. 2150) on October 17, 2008.

1.2.2 Timber Harvest/Forest Products – Timber harvest conducted over the past 150 years has also had the effect of impairing riparian functions. Large woody debris recruitment, shade, bank stability, water quality, microclimate and wildlife habitat have been impacted by the removal of mature forests along the Baker and Skagit Rivers. In some cases the forest canopy has been replaced with developed impervious surfaces which accelerate stormwater runoff rates increasing peak flows, and resulting in the problems of flooding, erosion and sedimentation. In addition shingle mills were established in shoreline areas and utilized excavated and dredged channels such as the Little Baker River as transportation corridors.

1.2.3 Mining - Mineral extraction and processing facilities have impacted shoreline areas through mining activities associated with aggregate extraction, asphalt and cement production. Areas along the shoreline of the Lower Baker River have been utilized in conjunction with aggregate processing, stockpiling and storage.

1.2.4 Transportation Facilities - A number of public and private transportation facilities are located along the shorelines of Concrete. The Baker River is crossed by two bridges within the City’s municipal boundaries. The SR-20 Bridge crosses the Baker River approximately 0.25 miles upstream from the confluence with the Skagit River. The Thompson Bridge is located an additional 0.25 miles upstream connecting East Main Street along the left (East) bank of the Baker River with Main Street on the right (west bank). Unimproved river access roads are also located near the left and right banks of the Baker River linking City roads and SR-20 with the shoreline of the Baker to its confluence with the Skagit River. Transportation infrastructure along the City’s river shorelines confine channel migration and may require maintenance activities such as bank armoring which further degrades riparian functions. In addition concrete supporting piers are located in-stream at both the Peterson and Thompson bridges.

1.2.5 Other Causes of Impairment – While the discussion above focuses on specific causes of impairment it should be recognized that any activities which result in removal of native plant communities and replacement with impervious surfaces impact...
shoreline/riparian functions. Commercial, residential and recreational development within the Town’s shorelines has also contributed to impairment of ecological functions.

1.3 Assessment of Shoreline/Riparian Function Impairment by Planning Segment
The following table summarizes impairment of riparian functions by planning segment. Numerical values are attributed to the level of impairment of the function, with 1 representing a high level of impairment and 5 a low level. A full suite of riparian functions, based on a three strata native plant community and intact mature forest canopy, functioning at the highest level would score 40 points.

Table 2: Comparison of Riparian Function Impairment by Planning Segment

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1.3.1 While Planning Segment 1 consists of the reservoir above the Lower Baker Dam known as Lake Shannon, riparian functions within the segment rank relatively high with a total score of 24 points. The contributing basin is managed, in large, as federal forest and park lands. Many of the tributaries to the lake include forested riparian corridors that promote water quality and productivity. The shoreline of the lake itself is bordered by a mixed forest. Although sand bars are present during low lake levels, the banks are relatively stable. Because the lake bottom was logged prior to construction of the Lower Baker Dam there is an abundance of in-lake habitat suitable for a variety of fish species. The lake plays a valuable storage function during storm events by holding floodwaters before release to the Skagit River and its associated floodplain.

1.3.2 Planning Segments 2 and 3 received scores of 18 points indicating the highest degree of riparian function impairment. Although the segments received identical total overall scores they differ significantly. Segment 2 extends from the Lower Baker Dam to and including the Thompson Bridge. The left (east) banks of Segment 2 and Segment 3 to the SR-20 Bridge are dominated by hydropower related facilities operated by Puget Sound Energy. Management of the segment for hydropower contributes to low to moderate scores for all riparian functions.

1.3.3 Segment 3 extends from the Thomson Bridge to a point approximately 0.25 miles south of the SR-20 (Lowell Peterson) Bridge. The right bank of segment 3 consists of an area utilized historically for aggregate extraction, processing and stockpiling. The primary distinction between the left and right banks is that the left bank extends downstream to the confluence with the Skagit River, while the right bank ends at the boundary between the municipality and unincorporated Skagit County. The left bank is managed for a mix of land uses including open space and public lands. Public access along both banks of the Baker River below the SR-20 Bridge is provided via impervious access roads which contribute to the impairment of ecological functions in Segment 3.
1.3.4 Planning Segment 4 received a total score of 21 points. Riparian functions are provided by a three strata native plant community that includes a mixed forest canopy. The riparian plant community broadens from the City boundary in the east to the mouth of the Baker River in the west. Shoreline jurisdiction in the segment extends landward from the OHWM and includes the FEMA designated floodway and 200 feet of the contiguous floodplain. While native vegetation is present contiguous to the OHWM, commercial, transportation and residential development impairs riparian water quality, microclimate, wildlife habitat, and conveyance and storage functions within the adjacent floodway and floodplain.

1.3.5 Planning Segment 5 ranked the highest of the segments for riparian functions scoring a total of 32 points. The segment exhibits diverse topography ranging from floodway/floodplain to a steep but stable (> 30%) slope. Alder and cottonwood transitioning to a dominance of cedar and fir along the upland slope dominate the floodway/floodplain portion. The segment also includes a side channel which provides for conveyance and storage of floodwaters as well as off channel habitat which provides refugia for juvenile salmonids during flood events. The side channel appears to be the mouth of the little Baker River which, because of its high potential for salmon habitat restoration, has been the subject of study for many years. Overall segment 5 is a relatively undisturbed shoreline which has retained its natural character.

1.4 Placing Impairment of Shoreline/Riparian Functions in Historic Context
Impairment of shoreline functions can be demonstrated based on the current state of aquatic resource science. It is important to recognize, however, that impairment requires an understanding of the historic context in which development and its associated impacts occurred and the societal benefits derived from the activities which resulted in impairment. For example, while hydropower development has resulted in significant impacts to fisheries resources, it has also provided our communities with relatively low cost electric power. Similarly, resource extraction activities associated with forest products, minerals and aggregate provided the economic basis for establishment of a viable frontier community.

1.5 Identification of Restoration Sites
Given the ecological significance of the confluence area of the Baker and Skagit Rivers and the existing level of shoreline/riparian function impairment, the lower portion of Segment 3 (below SR-20) has been identified as the area that would most benefit from restoration activities. Restoration along the right bank may be linked with contiguous Skagit County initiatives that could link the restored areas within the Town and County to the natural shoreline area identified as Segment 5. Such a linkage could, over time, provide for an uninterrupted forest canopy extending from the SR-20 Bridge on the Baker River southwest approximately 1 mile to the Dalles Bridge on the Skagit River.

Preliminary discussions with the Town of Concrete Planning Commission identified several potential restoration projects in Segment 3, most notably the Little Baker River. The site is located in the City of Concrete and in unincorporated Skagit County A
restoration project was pursued jointly by the Skagit Fisheries Enhancement Group, local, state and federal agencies and discontinued in 2010 for lack of federal funds.

In addition to the lower portion of Segment 3, Segment 4, upstream of the Baker Skagit Confluence, has also been identified as a location that will benefit from restoration. The Washington State Department of Transportation is removing an existing dilapidated stairway that provides shoreline access from a parking area along SR-20 to the Skagit River. The stairway is being removed because it has been determined a hazard and consequently a liability to the State. Impaired conditions are depicted in photographs as an attachment to this plan. (Attachment A: Photo log of Impaired Riparian Features)

2. Establishment of Overall Goals and Priorities for Restoration of Degraded Areas and Impaired Ecological Functions

Goal:
Through cooperative action, restore shoreline/riparian functions while providing shoreline access and low impact recreational opportunities consistent with a restoration plan developed in accordance with WAC 173-16-201(2)(f).

Priorities:
1. Reduce impervious surfaces in the area immediately adjacent to rivers by substituting pervious pedestrian trails for impervious vehicular access road and parking area.
2. Control invasive species, maintain existing native vegetation and install appropriate native plant species capable of providing riparian functions over the long term.
3. Provide for monitoring and maintenance of restoration actions to assure success over the long term including provisions for replacement plantings as needed.
4. Improve shoreline/river access and recreational opportunities by identifying and developing an appropriately sited boat launch, picnic camping and other recreational facilities.
5. Enter into intergovernmental/interagency/landowner agreements to provide for shoreline/river access and other recreational improvement and for maintenance of facilities over the long term.

Preliminary Steps:
1. Review existing site conditions with potential stakeholders including property owners, funding entities, agency representatives, technical advisors and other potential participants.
2. Identify practicable measures which will help restore degraded shoreline/riparian ecological functions documented in lower Baker/Skagit reach identified as Planning Segments 3 and 4 in the Shoreline Inventory.
3. Consider incorporating shoreline/river access and recreational improvements in areas that do not compromise restoration of shoreline/riparian ecological functions.

4. Develop a restoration strategy which includes the participation of Skagit County, private property owners and the Department of Natural Resources along the right (west) bank of the Lower Baker/Skagit Confluence.

3. Identification of Existing and Ongoing Projects, Partners and Funding Sources

3.1 Known Projects and Programs
There are no known existing or ongoing projects and programs currently being implemented relative the impaired shoreline areas identified in this plan. Similarly there are no secured funding sources. In short, the Town cannot reasonably assure that restoration activities proposed for impaired shoreline areas will be implemented. While uncertainty exists, the town has taken preliminary steps to identify a working group that possesses knowledge of existing and ongoing programs and funding sources as well as technical expertise in the restoration of riparian functions.

3.2 Potential Project Partners
A preliminary group of stakeholders met with the Town Planning Commission in study session at the regularly scheduled monthly meeting held on October 2, 2012. Project goals and funding strategies were discussed for the lower Baker River confluence area. An expanded group of stakeholders who includes property owners, agency representatives, and restoration ecologists met on site on January 15, 2013. The group reviewed existing site conditions in Segments 3 and 4 as well as contiguous shoreline areas in Skagit County. Impaired areas were assessed and potential restoration activities discussed. A roster of potential stakeholders and partners for future restoration activities is listed in Table 3 below:

Table 3: *Preliminary Partner/Stakeholder Roster

<table>
<thead>
<tr>
<th>Name</th>
<th>Representing</th>
<th>Phone</th>
<th>e-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jeff McMeekin</td>
<td>Puget Sound Energy</td>
<td>(425) 462-3824</td>
<td><a href="mailto:Jeff.McMeekin@PSE.com">Jeff.McMeekin@PSE.com</a></td>
</tr>
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<tr>
<td>Phil Kincare</td>
<td>U.S Forest Service</td>
<td>(360) 854-2631</td>
<td><a href="mailto:pkincare@fs.fed.us">pkincare@fs.fed.us</a></td>
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<tr>
<td>George Theodoratus</td>
<td>Property Owner</td>
<td>(360) 391-1470</td>
<td><a href="mailto:loistheo@gmail.com">loistheo@gmail.com</a></td>
</tr>
<tr>
<td>Betsy Stevenson</td>
<td>Skagit County Planning and Development Services</td>
<td>(360) 336-9310</td>
<td><a href="mailto:betsys@co.skagit.wa.us">betsys@co.skagit.wa.us</a></td>
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<td>Editor, Concrete Herald</td>
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<td><a href="mailto:editor@concrete-herald.com">editor@concrete-herald.com</a></td>
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<td>Dennis Clark</td>
<td>WA State Department of Natural Resources</td>
<td>(360) 854-2805</td>
<td><a href="mailto:Dennis.clark@dnr.wa.gov">Dennis.clark@dnr.wa.gov</a></td>
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<td>Jeroldine Hallberg</td>
<td>Town of Concrete Planner</td>
<td>(360) 853-8002</td>
<td><a href="mailto:jeroldine@concretewa.gov">jeroldine@concretewa.gov</a></td>
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<td>Brian Adams</td>
<td>Skagit County Parks and Recreation</td>
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</table>

* List will be expanded as additional stakeholders and interested parties are identified
In addition to the stakeholders listed in Table 3, other property owners including private and public entities will have a stake and interest in restoration proposals addressing the confluence area. In addition to the parking area and shoreline access stairway discussed under 1.5 Identification of Restoration Sites, the Washington State Department of Transportation also owns property along the left bank of the Baker River in Planning Segment 3. The Washington State Department of fish and Wildlife owns a parcel at the Confluence of the Baker/Skagit Rivers that includes a primitive boat launch area. Glacier Northwest Inc. also owns a parcel along the left bank of the lower Baker River in Planning Segment 3. An aerial photograph depicting potential restoration concepts, jurisdictional boundaries and property ownership is attached. (Attachment B: Conceptual Sketch Map for Shoreline Restoration Opportunities)

3.3 Potential Contributing Partners

It is unlikely that the Town can provide the necessary initiative to implement restoration activities at the scale required to remediate impaired functions at the confluence area. In order to pursue such actions it will be necessary to enlist the support of partners who possess the ability to secure funding and provide the technical know how to successfully complete such undertakings. Following is partial list of potential partners identified through the development of the Town’s Shoreline Master Program:

3.3.1 Puget Sound Energy (PSE) operates two hydroelectric power plants on the Baker River, one at Concrete. As part of its 2008 FERC relicensing agreement, Puget Sound Energy developed and funded an Aquatic Riparian Habitat Protection, Restoration, and Enhancement Plan (Puget Sound Energy 2010).

3.3.2 United States Forest Service (USFS) Manages approximately 158 miles of the Skagit River and its tributaries, upstream of the pipeline crossing at Sedro Woolley as a federally designated “Wild and Scenic River” (WSR). The WSR designation identifies the Skagit River as “recreational” indicating that portions are accessible by road, may have some shoreline development and may have a history of impoundment or diversion. While the WSR designation is not a regulatory program the designation applies to approximately 58 miles of the Skagit River including the portions of the river within the municipal boundaries of Concrete. The Forest Service may provide technical assistance to landowners in avoiding adverse impacts, and has the authority for limited purchase of private lands in fee title or a scenic or access easement. The WSR designation and its associated programs are administered by the Mount Baker/Snoqualmie District of the U.S. Forest Service. (Skagit Wild and Scenic River Management Plan, 1983)

3.3.3 Washington State Department of Ecology (Ecology) staff act as a resource for technical support and regulatory assistance to the town as needed. Ecology plays a primary role in the development and review of critical area regulations relating to wetlands by providing technical assistance to local governments pursuant to the GMA. WDOE plays a particularly critical role in shoreline management by providing technical support and oversight in the development of local master programs and reviewing all projects that require a shoreline permit. The department maintains specific authority over

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Shoreline Conditional Use Permits and Shoreline Variances. It is anticipated that Ecology would play a technical role in the development of restoration plans for the confluence area.

3.3.4 Washington State Department of Natural Resources (DNR) owns and manages several properties within the Town, including aquatic lands along the right bank of the Baker River in Planning Segment 3. DNR has partnered with entities within Skagit County to facilitate aquatic and forest land conservation. As a property owner and land manager it is anticipated that DNR would play a significant role in the development of restoration plans for the confluence area.

3.3.5 Washington State Department of Transportation (WSDOT) owns and manages a scenic pull out and parking area which includes the stairway access to the Skagit River proposed for removal. Additionally WSDOT owns a parcel of land along the lower left bank of the Baker River in Planning Segment 3. Both properties are key to restoration plans for the confluence area.

3.3.6 Skagit County (County) manages shorelines contiguous to the Town’s municipal boundaries. The County is currently preparing a comprehensive shoreline master program update that is anticipated to be adopted later this year. The master program will establish shoreline environment designations, policies and regulations which will work in concert with the Town’s master program. It is anticipated that County Planning and Development Services and County Parks and Recreation would play a significant role in the development of restoration plans for the confluence area as well as any proposal for improved park and recreation facilities. Cooperative development and implementation of restoration and recreational improvements will depend to a significant degree on support from the County.

3.3.7 The Skagit Fisheries Enhancement (SFEG) is a nonprofit organization formed in 1990 to engage communities in habitat restoration and watershed stewardship in order to enhance salmon populations. Working in partnership with local landowners, conservation groups, government agencies and tribes, the SFEG sponsors and supports implementation of restoration projects. In addition to sponsoring restoration projects, the SFEG collects monitoring data on stream habitat, stream macro-invertebrates, spawning salmon, and vegetation.

3.3.8 Private landowners including Glacier Northwest Inc., Puget Sound Energy and George Theodoratus own parcels which represent a sizable portion of the confluence area. Careful negotiations with landowners should occur on an early and continuous basis throughout development of restoration plans to ascertain their willingness and level of support for restoration activities.

3.4 Potential Funding Sources
Potential partners are likely to pursue funding through federal or state grants, as well as local, private, or non-profit matching funds. Projects may be funded in multiple phases, with different funding sources appropriate for each phase. Following are several potential sources of restoration funding.
- Aquatic Lands Enhancement Account (ALEA): Provides funding to buy, protect, and restore aquatic lands habitat and to provide public access to the waterfront.

- Salmon Recovery Funding Board (SRFB): Provides funding to improve important habitat conditions or watershed processes to benefit salmon and bull trout. Projects must go through screening and selection process by local lead entities and must address goals and actions defined in regional recovery plans or lead entity strategies.

- Washington Wildlife and Recreation Program (WWRP): Provides funding to protect habitat for wildlife including habitat for endangered, threatened, or sensitive species. Provides funds to restore riparian vegetation.

- Aquatic Riparian Habitat Protection, Restoration and Enhancement Plan (ARHPRHP): The plan under PSE Settlement Agreement 505 establishes an initial budget of $8.6 million to conduct habitat protection, restoration, and enhancement, and includes a provision for an additional $1.6 million contingent on future dam development. The plan does not identify specific projects for funding, but instead it establishes standards and guidelines to “protect and enhance low-elevation bottomland ecosystems in the Skagit River basin, including the Baker River sub-basin. (The settlement agreement also includes similar provision for funding of recreational projects in the Lower Baker area)

4. Identify Additional Projects and Programs Needed to Achieve Local Restoration Goals

4.1 Steering Committee
Establish a steering committee consisting of Town Council and Planning Commission representatives, citizens and other stakeholders. The committee should consider supporting a phased approach to restoration activities linked with low impact shoreline access and recreation improvements in the confluence area. In concept a phased restoration/shoreline access plan could proceed in the following manner:

4.1.1 Phase 1: WSDOT Skagit River Shoreline Access - Work cooperatively with the Skagit Fisheries Enhancement Group and the WSDOT to apply for ALEA funding to replace the existing shoreline stairway to the Skagit River located adjacent to SR-20 and east of the Baker River Bridge. The stairway may be replaced with a shoreline trail possibly with a pervious surface. Invasive plant species should be removed and replaced with native trees and shrubs. Volunteers may be enlisted from the conservation community and sport fishing groups for trail construction and plant installation. New signage near the trailhead acknowledging the work of the volunteers would be a fitting
completion of the project. It may also be possible for maintenance of the trail and plantings to be accomplished by volunteers.

4.1.2 Phase 2: Left Bank Baker River Downstream of SR-20 - Work cooperatively with stakeholders to identify areas of existing road along top of left bank which may be abandoned and returned to a pervious natural surface. Consider utilizing higher ground (outside of FEMA designated Floodway) for vehicular access, parking and sanitary facilities. Substitute pedestrian shoreline access trails and points of shoreline access for continuous impervious road surfaces. Remove invasive species and install native trees and shrubs. Explore the possibility of improving existing launch site with WDFW. Develop conceptual plan and apply for WWRP funding.

4.1.3 Phase 3: Right Bank Baker/Skagit River Confluence – Work cooperatively with stakeholders and on an inter-jurisdictional basis with Skagit County to restore shoreline/riparian ecological functions along the right bank of the Baker River and contiguous properties to the south within Skagit County. Consider feasibility of re-establishing meander in lower Baker River. Substitute pedestrian shoreline access trails for impervious road surfaces. Remove invasive species and install native trees and shrubs. Consider linkages to off channel habitats such as the Little Baker River. Work with Skagit County Parks and Recreation to assess feasibility of recreational improvements including campgrounds to be located outside of the FEMA designated floodway. Assess eligibility for Aquatic Riparian Habitat Protection, Restoration and Enhancement Plan funding under PSE Settlement Agreement Article 505.

5. Identify Timelines and Benchmarks for Implementing Restoration Projects

5.1 Phased Approach
As outlined above in Section 4., a phased approach to restoration activities will require the guidance of a steering committee, commitment of partners and availability of funding. Timelines and benchmarks will be determined by the scope of the restoration project, application requirements for grants and awarding of funds.

5.1.1 (Short Term/2013) – Phase 1 is a project of relatively modest scope. The Skagit Fisheries Enhancement Group may assist with application for ALEA grant funds available early in 2013. If grant funds are awarded, trail construction, invasive species removal and installation of native plant materials may follow in relatively short order with much, if not all, work donated by volunteers. It should be noted that phase 1 activities are of a limited scope that is not likely to require a shoreline substantial development permit. Completion of phase 1 may provide a sense of accomplishment and momentum as restoration activities transition into the more ambitious scopes of phases of 2 and 3.

5.1.2 (Mid to Long Term/2014-2017) - Phases 2 and 3 will require more intensive assistance in the preparation of plans and applications for funding possibly from sources including WWRP and PSE. Because of the expanded scope and cost associated with
restoration activities pre-project planning, preparation of detailed grading plans and utilization of heavy equipment may be required. Accordingly, grant application procedures will be more exacting and protracted. The enlistment of Skagit County in restoration activities associated with Phase 3 may include coordinated recreational improvements within both Town and County jurisdictions. The inclusion of structural shoreline access and recreational components may require a shoreline substantial development permit that could attenuate timelines.

6. Provide Mechanisms to Ensure Implementation and Effectiveness of Restoration Actions

6.1 Phase 1
As Phase 1 is implemented the following tasks should be completed:

- Care should be taken to assure that an appropriate trail design is prepared and reviewed by WSDOT
- Trail construction should rely primarily on hand tools including hand operated power tools
- Use of pervious material on the trail surface should be researched and utilized if possible
- If removal of invasive species is accompanied by application of herbicide, an appropriate aquatic friendly product should be utilized
- Follow-up maintenance controls should be anticipated to confirm removal of invasive species over time
- Plant installation should provide for monitoring and maintenance consistent with the requirements of the CARs and SMP
- Replacement of the existing sign should be coordinated with WSDOT, WDFW, USFS and other participating partners

6.2 Conclusion
It is clear that the ecological importance and impaired condition of the confluence area recommend it as a candidate for restoration activities. Growing interest in the area by conservation organizations and potential availability of restoration funds through the entities listed under subsection 3.4 suggest that it is but a matter of time until restorative actions are actually implemented. It should be recognized that conservation organizations will likely take the lead in planning and implementing these actions. The Town of Concrete however has a vital stake in this area. While the confluence area is undeniably significant as a restoration site it has been used for shoreline access and recreation for many years. Including appropriately designed and sited access and recreation improvements in the area can promote the dual mandates of the Shoreline Management Act by protecting shoreline ecological functions and providing shoreline access.
7. References


Personal Communications

Adams, Brian – Director, Skagit County Parks and Recreation: Planning Commission Meeting of October 2, 2012 and follow up e-mail correspondence.


Stevenson, Betsy – Senior Planner/Team Supervisor, Skagit County Planning and Development Services: Meetings regarding coordination with County wide SMP update process. March 2010 and field review of January 15, 2013.

Impaired Riparian Features at Identified Restoration Opportunity Sites.

Photo 1: (Segment 3) View south showing impervious shoreline access road along left bank of Baker River. Note absence of canopy along bank.

Photo 2: (Segment 3) View west showing stormwater discharging to Baker River from access road shown in Photo 1.

Photo 3: (Segment 3) View east showing vandalized portable toilet at boat launch near confluence of Baker/Skagit River.

Photo 4: (Segment 4) View south showing dilapidated stairway access to Skagit River to be removed by WSDOT.

Photo 5: (Segment 3) View southeast showing impervious access road along right bank of Baker River.

Photo 6 (Segment 3) View west showing access to permitted temporary rock storage area adjacent to right bank of Baker River.
Note: This map does not indicate a commitment by property owners to participate in restoration activities.
Abandon impervious roadways and restore natural pervious surfaces. Control invasion species and promote native trees and shrubs.

Relocate parking and sanitary facilities from FEMA floodway to higher ground.

Existing river access via stairs at DOT pocket park are dilapidated and proposed for removal. A foot path is being considered to replace the stair access.

Existing WDFW boat launch site needs maintenance for safe launching.

Work with EWebsite, Mason County PUD, and Private rail to enable Shoreline access and reduce vegetation, control impervious surfaces, and improvements such as pavement scales involving access to parking and boat launch.

Legend:
- Shoreline Jurisdiction
- Town Boundary

Town of Concrete Shoreline Restoration Plan
Preliminary Restoration Concepts

Date: January 28, 2013