Green-Duwamish and Central Puget Sound Watershed (WRIA 9) Salmon Habitat Project Proposals

2005 Grant Cycle
State Salmon Recovery Funding Board

September 2005
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1.0 Overview

The following SRFB process and timeline were adopted by the WRIA 9 Steering Committee at the May 26 meeting. As detailed in the section “SRFB Guidance for Round 6” below, the main focus this year for projects in recovery plan regions is fit of project list to strategy. Consequently, it was decided to include for submittal to SRFB only projects included in the Plan, and this message was conveyed to project applicants.

Because project applicants took advantage of opportunities to revise projects following feedback, these revisions and the process are presented chronologically in sections 2 and 3 below to give the background on how projects evolved and were reviewed.

1.1 Review and Evaluation Process (adopted at 5/26 Steering Committee Meeting)

Salmon Recovery Funding Board Round 6
Project Evaluation and Ranking Process for WRIA 9

General approach:
With the completion of the Draft Salmon Habitat Plan, this year WRIA 9 will be able to use this as the basis for strategy and guidance. In addition, the Plan includes a list of projects that have already been scored for technical merit and undergone feasibility and effectiveness screening.

The focus for this year is to make the SRFB project selection and evaluation process utilize and parallel the recent and on-going work in developing the Plan.

SRFB Guidance for Round 6:
The biggest change in the SRFB process for this year is that for those watersheds that are within a regional planning area, the local watershed-based salmon habitat plans (or chapters of the Shared Strategy Recovery Plan in our case) are to be used as “strategies”. The SRFB will not be evaluating “specificity and focus” of watershed plans because that is being done, in essence, by the Puget Sound Technical Recovery Team. SRFB will review:

- Individual projects to identify “projects of concern” – those determined to have low benefit to salmon, a low likelihood of being successful, or having costs that outweigh the anticipated benefits of the project
- Fit of prioritized list to the watershed habitat plan
- Relationship of list to regional recovery plan

Project Selection and Evaluation:
To be lock step consistent with the SRFB, as well as to be consistent with the WRIA 9 Salmon Habitat Plan and the extensive project evaluations that have occurred, it is proposed to submit projects to SRFB this year that are included in the Plan (and hence have undergone review by the Science Panel and the Feasibility & Effectiveness screen).

A notice was sent out April 1, 2005 to potential project sponsors to inform them of this possible approach and to ask them to identify any projects of the Habitat Plan that they may be interested in proposing for SRFB funding.

As in past years, we propose convening a group of WRIA 9 participants to evaluate project proposals for their consistency with SRFB criteria (not duplicate the work of the Science Panel and the Feasibility and Effectiveness Screen) and to help refine projects to maximize funding potential. This short-term group will also be asked to make a recommendation on the ranked priority of project proposals to the Steering Committee.
Due to the need to make sure our focus remains on the Habitat Plan at all our scheduled Steering Committee meetings this year, we propose that the Steering Committee hold a *special meeting on September 15* to determine the ranked list of projects to submit to the SRFB for funding.

**Key Dates:**
- **June 29** – Project sponsors’ pre-applications due
- **August 15** – Project sponsors’ final applications due
- **August 15 – September 15** – Project evaluation and prioritized list developed and endorsed
- **September 30** – Project applications submitted to SRFB

### 1.2 Timeline (adopted at 5/26 Steering Committee Meeting)

**WRIA 9 Salmon Recovery Funding Board (SRFB) Timeline**  
**Sixth Round (2005)**

<table>
<thead>
<tr>
<th>Date</th>
<th>SRFB</th>
<th>WRIA 9 Lead Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAY 2005</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/9</td>
<td>SRFB guidelines released</td>
<td></td>
</tr>
<tr>
<td>5/26</td>
<td><em>Steering Committee Meeting</em> – announce timeline and process for Round 6</td>
<td>Convene Short-Term Project Evaluation Group</td>
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<td><strong>JUNE</strong></td>
<td></td>
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<tr>
<td>6/1</td>
<td>“Request for Proposals” sent out to prospective project sponsors with WRIA 9 guidance</td>
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<tr>
<td></td>
<td>✔️ 6/29 <strong>Project Sponsor pre-application deadline to WRIA 9</strong></td>
<td></td>
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<tr>
<td><strong>JULY</strong></td>
<td></td>
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<tr>
<td>7/14</td>
<td><em>Steering Committee Meeting</em> – Brief review of project proposals</td>
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<tr>
<td>7/5 – 8/11</td>
<td>Field trips to project sites (including SRFB Technical Advisors)</td>
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</tr>
<tr>
<td>July/Aug</td>
<td>SRFB provides comments on projects and notes projects of concern</td>
<td></td>
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<tr>
<td></td>
<td>✔️ 8/15 <strong>Project Sponsor final application deadline to WRIA 9</strong></td>
<td></td>
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<tr>
<td><strong>AUG</strong></td>
<td></td>
<td></td>
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<tr>
<td>8/16 – 9/9</td>
<td>Project Evaluation Group – evaluate project proposals and recommend ranked list to Steering Committee</td>
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</tr>
<tr>
<td><strong>SEPT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9/15</td>
<td><em>Special Steering Committee Meeting</em> – finalize prioritized list of projects to submit to SRFB</td>
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</tr>
<tr>
<td>✔️ 9/30</td>
<td>✔️ <strong>SRFB deadline</strong> Submit WRIA 9 application materials with final project proposals to SRFB</td>
<td></td>
</tr>
<tr>
<td><strong>OCT</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Project Evaluation Group

A Project Evaluation Group was convened to review and score projects, with the following participants:

- Kirk Lakey, Washington Department of Fish and Wildlife
- Lorin Reinelt, King County
- Gordon Thomson, WRIA 9
- Don Robinette, City of Federal Way
- Joanne Poleyes, Department of Ecology

This group first met on June 16th and decided to use the SRFB criteria to assess projects.

### Pre-applications

The following pre-applications were submitted to WRIA 9, and were all included in the July 25 site visit:

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Sponsor</th>
<th>SRFB $ Request</th>
<th>Match $</th>
<th>Total Project Cost</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>Big Spring Acquisition Phase II</td>
<td>King County</td>
<td>$170,000</td>
<td>$30,000</td>
<td>$200,000</td>
<td>Middle Green Subwatershed tributary of Newaukum Cr. near Enumclaw</td>
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<tr>
<td>Acquisition of 32 acres of headwaters of Big Spring Creek, to complete acquisitions from Round 2 SRFB.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Ellis Creek Salt Marsh Restoration and Acquisition</td>
<td>King County</td>
<td>$217,622</td>
<td>$50,000</td>
<td>$267,622</td>
<td>Nearshore Subwatershed Vashon Island, east side</td>
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<tr>
<td>Restore and reconnect 0.22 acres to the 0.8 acres salt marsh at the mouth of Ellis Creek. Involves removing a dirt fill access road, and acquiring the 3 acres of property the road serves.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mill Creek Confluence/Green River Restoration</td>
<td>City of Kent/Mid-Sound Fisheries</td>
<td>$655,000</td>
<td>$703,400</td>
<td>$1,358,400</td>
<td>Lower Green Subwatershed city of Kent</td>
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</table>
Rehabilitate instream, riparian, and off-channel floodplain habitat within and near the confluence of Mill Creek and the Green River.

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Sponsor</th>
<th>SRFB Request</th>
<th>Match</th>
<th>Total Project Cost</th>
<th>Location</th>
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<td>Chinook Passage Barrier Inventory</td>
<td>Mid-Sound Fisheries</td>
<td>$50,900</td>
<td>$8,678</td>
<td>$59,578</td>
<td>(not site specific)</td>
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<td>Fenster Levee Setback &amp; Floodplain Restoration</td>
<td>City of Auburn</td>
<td>$629,991</td>
<td>$120,000</td>
<td>$749,991</td>
<td>Middle Green Subwatershed near Auburn</td>
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<tr>
<td>Beaconsfield Nearshore Acquisition</td>
<td>Cascade Land Conservancy</td>
<td>$300,000</td>
<td>$100,000</td>
<td>$400,000</td>
<td>Nearshore Subwatershed Normandy Park</td>
</tr>
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</table>

Provide a comprehensive inventory of fish passage structures in the top 10 Chinook sub-basins identified in Windward Environmental's 2005 report, identify structures that are barriers to fish migration, determine the extent of habitat loss due to the structure, and provide a means of prioritizing the replacement of impassable structures.

Excavate and remove approximately 1,320 linear feet of the old Fenster revetment and form a low, revegated bench and gently sloping riverbank to provide overhanging cover, better accommodate floodwaters and attenuate floodwater velocities.

Acquire approximately 13.5 acres of shoreline parcels including 1/4 mile of shoreline in the Normandy Park area for future restoration projects, including bulkhead removal.

| Total SRFB request= | $2,023,513 |

### 2.1 Feedback to Project Sponsors on Pre-Applications

The process this year, with an extra pre-application step, was planned to maximize ability of applicants to revise projects following site visits and reviewer comments. The following comments pertain to the projects as they were originally proposed.

**Fenster Levee Setback and Floodplain Restoration**

The SRFB reviewers thought this appeared to be a very strong project, however the available graphics were difficult to understand. Improved graphics showing exactly what is proposed in this phase would be helpful.

Based on volunteer participation at an adjacent restoration site, there appears to be a great deal of community support for restoration in this part of the river.

The project area is situated at the downstream end of the Middle Green River where most of the natural Chinook spawning occurs. Therefore it appears well positioned to be accessible to large numbers of fry.
**Big Spring Creek Acquisition: Phase II**

SRFB reviewers observed that the project connects with other public ownership in the headwaters of Newaukum Creek. The property includes a substantial spring-fed stream that provides high quality water to the main channel. Good project.

**Mill Creek Confluence/Green River Restoration**

SRFB reviewers claimed that details on the overall vision for the site, specifically the future plans to reconnect the off channel to the mainstem Green River, need to be further developed because it can affect how the proposed channel is configured. The proponent mentioned possibly using a flap gate at the future reconnection to the Green River and that does not appear to be the best restoration approach, given that the gate would need continued monitoring.

The design includes using the excavated material to create a berm along the property margin bordering SR 167. Since the site historically had an orchard on it, soil chemistry would need to be tested, particularly for pesticides, prior to such re-use of the material. Investigate the feasibility of wasting spoils along the State Route ROW, given that this area has essentially no habitat value. This could open up a larger area for flood inundation.

Details on the overall vision for the site, specifically the future plans to reconnect the off channel to the mainstem Green River, need to be further developed because it can affect how the proposed channel is configured.

Mill Creek is a major tributary to the Green River and this is a good opportunity to improve juvenile rearing conditions in the area.

**Beaconsfield Nearshore Acquisition**

This was the only project designated as a “project of concern” by SRFB reviewers because of the possibility of adjacent land owners objecting to removal of the bulkheads following acquisition. SRFB reviewers stated that the middle acquisition area (Beaconsfield on the Sound) is for a bluff area that appears to be undevelopable because the top of bluff has separate ownership. While the area is an important feeder bluff opportunity, the primary benefit of the acquisition would be the removal of bulkheads that line much of the area. There is a significant risk that the proponent would be unable to remove the bulkheads because of adjacent landowner concerns. For this reason, the potential risks that removing the bulkheads poses to the houses at the top of the slope and on adjacent properties needs to be more fully understood.

SRFB reviewers also noted that the northern property is undeveloped and has a significant risk of development, but much of the land available is not shoreline property. Additional information on costs is needed.

**Ellis Creek Salt Marsh Restoration and Acquisition Project**

SRFB reviewers felt the budget for the restoration phase appears high, given that implementation is straight-forward. The total cost of the project is high, given that the project recovers 0.22 acres of salt marsh. The proponent is encouraged to explore opportunities to reduce the restoration-related project costs. The project contributes to the recovery of critical salt marsh habitat.

**Chinook Passage Barrier Inventory**

SRFB reviewers recommended that efforts be undertaken prior to beginning the field work to understand what portions of the proposed project area have barrier data collected using the proposed WDFW
methods. This will help in understanding what the true data gaps are and how to limit duplication with past efforts.

SRFB reviewers also suggested that the field survey work be conducted by targeting the road crossings identified by the Phase I GIS analysis. This would reduce the field time as well as the coordination efforts necessary to gain site access approval from homeowners.

Because the Chinook Passage Barrier Inventory is not a project in the WRIA 9 Salmon Habitat Plan and does not have a strong tie to the strategy, the Lead Entity is proposing alternative funding source for this project and working with project sponsors.

2.2 Changes Made to Pre-Applications and Project List

Project sponsors made a number of changes based on reviewer comments, and those changes are summarized here.

**Mill Creek Confluence/Green River Restoration**
Took out connection between this side channel and the mainstem (see map).

**Beaconsfield Nearshore Acquisition**
Major change – the original proposal was acquisition of parcels in 3 separate locations. The project is now separated into two separate proposals:
- **Normandy Park Nearshore** - This proposal is to do acquisition only for protection purposes in the northern-most parcel.
- **Beaconsfield on the Sound Landowner Willingness and Restoration Feasibility Study**
  - This proposal is to do assessment as preliminary phase before acquisition and restoration.

**Ellis Creek Salt Marsh Restoration and Acquisition Project**
Reduction in total project costs from $267,622 to $229,438, mostly in decreased restoration costs. Main changes were in the planting plan and to use King County Roads crews for fill removal and waste disposal.

**Chinook Passage Barrier Inventory**
Added background research component to collect existing information (in response to reviewer feedback) and corresponding minor increase in request amount.
3.0 Review and Evaluation of Revised Project Proposals

The Project Evaluation Group met on August 25 and reviewed the revised project proposals (final applications) and assigned scores (see Table 3-1 on the next page). The group also discussed the merits of removing projects from the list with Mike Ramsey, SRFB liaison for WRIA 9, who was present at the meeting.

The Project Evaluation Group recommended that the Chinook Passage Barrier Inventory project be removed from the list, because of the possibility that a project without strong ties to strategy could result in the entire list of projects getting a lower score, as well as the likelihood of other, more appropriate funding sources for the assessment. The Watershed Forum will consider funding the project with regional King Conservation District funds.

In addition, the Project Evaluation Group recommended that the City of Kent and Mid Sound revise their application to do feasibility and 30% design project as a preliminary phase before restoration. The Group felt that a number of technical issues were still not satisfactorily resolved. The sponsors agreed to this suggested revision, and the Evaluation Group scored the revised project (feasibility and design only).
<table>
<thead>
<tr>
<th>Project Name</th>
<th>Project Type</th>
<th>Project Sponsor</th>
<th>Benefit to Salmon</th>
<th>Certainty of Success</th>
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<tr>
<td>Middle Green River Restoration, Fenster/Pautzke</td>
<td>Restoration</td>
<td>City of Auburn</td>
<td>H</td>
<td>H</td>
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<td>Mill Creek Confluence/Green River Restoration: Feasibility and Design</td>
<td>Assessment</td>
<td>City of Kent / Mid-Sound RFEG</td>
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<td>MH</td>
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<td>Beaconsfield on the Sound Landowner Willingness and Restoration Feasibility Study</td>
<td>Assessment</td>
<td>Cascade Land Conservancy</td>
<td>MH</td>
<td>MH</td>
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<tr>
<td>Ellis Creek Salt Marsh Restoration and Acquisition Project</td>
<td>Acquisition &amp; Restoration</td>
<td>King County</td>
<td>MH</td>
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<tr>
<td>Big Spring Creek Acquisition</td>
<td>Acquisition</td>
<td>King County</td>
<td>M</td>
<td>M</td>
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<tr>
<td>Normandy Park Nearshore Acquisition</td>
<td>Acquisition</td>
<td>Cascade Land Conservancy</td>
<td>M</td>
<td>MH</td>
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</table>

**Scoring Key**

- **High**: 5 points
- **Medium-High**: 4 points
- **Medium**: 3 points
- **Medium-Low**: 2 points
- **Low**: 1 point

**Total**: $1,592,990
**Project Sponsor**
City of Auburn

**Estimated Costs and Matches**

<table>
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<th>Amount</th>
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<td><strong>Total</strong></td>
<td>$823,458</td>
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**Fit to Strategy**
Part of MG-18 in Table 8-2 of the WRIA 9 Salmon Habitat Plan

**Location**
River Miles 31.8 – 32.1, left bank of the Green River at the border of the Lower Green River and Middle Green River Subwatersheds (Figure 3-1 on page 13)

**Site Ownership**
City of Auburn, with adjacent property upstream owned by King County

**Project Goal**
The goal of this project is to restore in-stream, riparian, and off-channel floodplain fish and wildlife habitat along the Green River. This project is part of a multi-phase project that includes setback of the Pautzke Levee just downstream of this project site.

**Project Details**

- Set back ~700 linear feet of the old Fenster revetment to form a low, vegetated bench and gently sloping river bank to provide overhanging cover, better accommodate floodwaters and attenuate floodwater velocities.
- Restore and reconnect an existing low grassy swale, which appears to be a relict side channel, to several acres of high-quality densely forested off-channel habitat (Pautzke Slough), which will provide another passageway for juvenile salmonids to enter during floods.
- Install large woody debris (LWD) along the toe of the bank slope and on the vegetated bench to provide cover and hydrologic complexity
- Excavate grass pastures to elevations corresponding to the modified floodflow regimes on the Green River to rehabilitate floodplain connectivity.
- Plant deciduous and coniferous trees in the reconnected floodplain to restore high quality, shade-producing riparian habitat.
- Replace revetment with a raised earthen berm built over a buried rock toe that will provide flood and erosion protection for a nearby residential neighborhood. Vegetate berm to stabilize the slopes and prevent them from becoming infested by non-native plants.
- Signage will be installed at the site to increase public awareness about the value of large woody debris. A series of planting and habitat maintenance projects will be scheduled to involve volunteers and care for the site.

**WRIA 9 Project Evaluation Group Scores and Comments**

The project aims to improve adult and juvenile habitat and builds on habitat created by other projects near Highway 18. However, there is potential for deposition of sediment at mouth of swale reconnection that might limit access during low flows or cause stranding when flows recede. Project sponsors should consider inclusion of a triangle parcel at north end of boundary to maximize levee setback and habitat restoration area.

**Scores:**
Benefit to Salmon: 28
Certainty of Success: 29
Big Spring Creek Acquisition: Phase II

Project Sponsor
King County

Estimated Costs and Matches

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<thead>
<tr>
<th>Source</th>
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<td>Match</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$236,610</strong></td>
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Fit to Strategy
Part of MG-19 (Middle Green Acquisitions) in Table 8-2, part of project MG-7 on p. 7-39, and a Tier 2 Conservation Hypothesis (protecting cool, clean water source) in the WRIA 9 Salmon Habitat Plan.

Location
Middle Green River Subwatershed (Figure 3-1 on page 13)

Project Goal
Acquire 32.5 acres of headwaters of Big Spring Creek, an important cold water source for Newaukum Creek. This project is expected to improve water temperature between the springs and Newaukum Creek. Big Spring Creek is an important cold water source that contributes significantly to the fall minimum flows in lower Newaukum Creek where Chinook spawn and rear.

This acquisition proposal will complete the original Big Spring Creek Acquisition grant awarded in the 2nd SRFB round of funding. Funds on the original grant have been expended, and the County has yet to acquire some key parcels at the headwaters because of higher than expected acquisition costs. This proposal would complete the acquisition envisioned in the original grant.

Project Details
- The springs of Big Spring Creek provide 3 to 5 cubic feet per second of cold, clean water according to a 1998 University of Washington study.

WRIA 9 Project Evaluation Group Scores and Comments
The cool source of spring water on the proposed acquisition site has benefit to downstream water quality, particularly in Newaukum Creek. The main Chinook benefit from this project is water quality and the protection of a forested wetland affecting lower Newaukum creek and the Middle Green River. Due to Critical Areas Ordinances, development in this area is limited but not impossible. This project may benefit from a public education component in terms of water quality protection and water conservation.

Scores:
Benefit to Salmon: 17
Certainty of Success: 27
Figure 3-1: Middle Green Projects Map
**Mill Creek Confluence/Green River Restoration:**

*Feasibility and Design*

**Project Sponsors**
City of Kent and Mid Puget Sound Fisheries Enhancement Group

**Estimated Costs and Matches**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tr>
<td>Salmon Recovery Funding Board</td>
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**Fit to Strategy**
LG-7 in Table 8-2 of the WRIA 9 Salmon Habitat Plan

**Location**
Lower Green River Subwatershed (Figure 3-1 on page 16)

**Project Goal**
The project request is for a feasibility study and 30% design of the Mill Creek Confluence/Green River Restoration Project - the creation of side channels and an overwintering pond to increase access to floodplain habitat for Chinook and other salmonids and to restore floodplain functions. The lower quarter mile of Mill Creek is deeply incised and no longer connected to its floodplain.

**Project Details**

- Develop a native riparian re-vegetation plan.
- Design large woody debris structures.
- Conduct hydraulics and soils studies to determine the feasibility of connecting the side-channel to the mainstem of the Green River and the potential for re-using excavated material on site. As the project site was an orchard prior to 1991, soil chemistry will be tested to ensure the soil can be re-used on site. This will also include investigating the feasibility of wasting spoils along the SR167 ROW which would provide a larger area for flood inundation.
- Conduct hydraulic and geotechnical analysis of the banks of Mill Creek and the Green River on this site and the feasibility of reshaping and restoring the banks to provide stability for the restoration of fish habitat through this reach.
- The design of the project along the Mill Creek and Green River banks will be included in a future project that involves creating a side channel and winter pond complex to restore the floodplain functions and removing invasive plants down to the bottom of the root zone.
**WRIA 9 Project Evaluation Group Scores and Comments**

The project location is below the Chinook spawning area within the Green River. Significant Chinook spawning opportunities in the Mill Creek system are currently none with limited opportunities in the future. The greatest potential of the project is to improve juvenile rearing habitat. The project needs a clear description of how this ties in with project on other side of river.

The project sponsors should clarify which phases and elements of the overall project are considered part of future restoration, and determine how to ensure that connection between back channel and mainstem is not filled in with sediment. If a connection is not proposed, how will the sponsors prevent fish stranding in the backwater and keep the inlet channel free of sediment accumulation?

Reviewers acknowledged that this is a complex project in an important, but problematic area, and the efforts that the City of Kent has already put into acquisition and work at this site.

**Scores:**
Benefit to Salmon: 24
Certainty of Success: 27
**Normandy Park Nearshore Acquisition**

**Project Sponsor**
Cascade Land Conservancy

**Estimated Costs and Matches**

<table>
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**Fit to Strategy**
Part of NS-17 (nearshore acquisitions) in Table 8-2 of the WRIA 9 Salmon Habitat Plan

**Location**
Marine Nearshore Subwatershed (Figure 3-3 on page 22)

**Project Goal**
Acquire approximately 8.7 acres of Puget Sound nearshore habitat to protect existing functioning salmon habitat.

**Project Details**
- The proposed area includes 8.7 acres of forested uplands and 300 feet of saltwater beach within the City of Normandy Park that are critical for sustaining nearshore and habitat forming processes essential for rearing, refuge, migration and transition to saltwater habitats.

**WRIA 9 Project Evaluation Group Scores and Comments**
This project provides marine rearing habitat for several stocks of salmonids including Chinook produced within the Puget Sound ESU. The proposal seems to be geared towards protecting parcels that have marginal potential to provide process based inputs. Also, the threat of development is uncertain.

*Scores:*
Benefit to Salmon: 19
Certainty of Success: 24
Beaconsfield on the Sound Landowner Willingness and Restoration Feasibility Study

Project Sponsor
Cascade Land Conservancy

Estimated Costs and Matches

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Fit to Strategy
Part of NS-11 in Table 8-2 of the WRIA 9 Salmon Habitat Plan

Location
Marine Nearshore Subwatershed (Figure 3-3 on page 22)

Project Goal
Ascertain feasibility of purchasing and restoring a portion of one of the last major privately-held undeveloped, but bulkheaded, feeder bluffs along the mainland marine shoreline.

Project Details

- Beaconsfield on the Sound is composed of 33 small approximately 1/10 acre, independently owned parcels along the marine nearshore of Puget Sound. The area consists of four acres of historic feeder bluffs, shallow habitat, tidelands, and over 1/4 mile of saltwater beach that are critical for sustaining nearshore and habitat forming processes essential for rearing, refuge, foraging, migration and transition to saltwater habitats for all anadromous salmonids.

- In its current state the feeder bluff has been disconnected from the nearshore by a bulkhead at the toe of slope that extends across 80% of the property. This bulkhead impedes sediment inputs into the nearshore system by preventing sediment erosion, drift, and accretion down drift. Disruption of these processes ultimately impacts forage fish habitat and salmonid habitat.

WRIA 9 Project Evaluation Group Scores and Comments
This project has potential to re-establish sediment processes along the marine nearshore by exposing the feeder bluff to erosion. There is also potential to increase population productivity and improve nearshore rearing. The threat of development is uncertain. The project sponsor should find out the projected rate of recession of the bluff/slope if the bulkhead is removed. In addition to standard geotechnical criteria (i.e. soil types, composition, structure, hydrology etc.) the analysis should address wind and wave erosion. Further, what is the potential liability to uphill...
and adjacent properties if bulkheads are removed? What are the benefits of acquisition if restoration/bulkhead removal is not feasible?

Scores:
Benefit to Salmon: 24
Certainty of Success: 26
Ellis Creek Salt Marsh Restoration and Acquisition Project

Project Sponsor
King County

Estimated Costs and Matches

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Fit to Strategy
NS-10 in Table 8-2 of the WRIA 9 Salmon Habitat Plan

Location
The Ellis Creek Salt Marsh is located within Central Puget Sound in Tramp Harbor on the east side of Vashon Island in the Marine Nearshore Subwatershed (Figure 3-3 on page 22)

Project Goal
Restore and reconnect 0.22 acres to the 0.8 acre salt marsh at the mouth of Ellis Creek to address the loss of Chinook salmon migratory rearing habitat in the marine nearshore. The project will also protect the forested uplands, stream, and riparian buffers through which both surface water and groundwater flow into the salt marsh.

Project Details
- Remove a dirt fill access road that bisects the salt marsh cutting off approximately 30% of the marsh from tidal influence and salmonid rearing benefits. The dirt road across the salt marsh provides access to about 3 acres of vacant mostly forested property of the Ellis Creek watershed. In order to remove the dirt access road the project needs to buy these properties.
- Remove non-native plants in the salt marsh vicinity and plant native salt marsh plants.
- The primary property owner has signed a landowner willingness form and the fairly straight forward project is envisioned to be completed in 2006. The acquired properties would be administered and stewarded by the King County Natural Lands program in partnership with the Vashon Island Land Trust and Island volunteers. The project has strong support on Vashon Island.

WRIA 9 Project Evaluation Group Scores and Comments
The project appears to benefit the greater ESU and all salmonid species. Due to Critical Areas restraints development in this area is limited but not impossible. The project provides benefits for population productivity and relatively high rate of certainty. The salt marsh expansion is relatively small in scale,
but the connection with the Ellis Creek freshwater input and associated tideflats enhances the potential benefits.

_Scores:_
Benefit to Salmon: 23
Certainty of Success: 26
Figure 3-3: Marine Nearshore Projects Map