**Crescent Harbor Creek Restoration Design & Permit**

Skagit River System Cooperative

May 15, 2013

**Responses to SRFB Review Panel Comments:**

1. *Please provide a copy of the report and design drawings of the 2008 feasibility study by EDAW and explain specifically how its findings will be used to support the present proposal.*

The relevant portions of the 2008 Navy feasibility study have been uploaded to PRISM. Through preliminary investigations of historic channel alignment, current site conditions, site hydrology, potential cultural impacts, and by providing a reasonable conceptual design, we feel as though the feasibility report represents a solid basis on which to begin work related to refinement of the project design. Using the conceptual design developed during the feasibility as a general roadmap, our approach will be to collect more detailed topographic and vegetation data, allowing the precise alignment of the new channel to be determined and a plan for construction sequencing and permitted to be developed.

1. *A breakdown of the 1.5 FTE of “salaries and benefits” showing how in-house staff resources are planned for the various work tasks (e.g. topographic surveying, vegetation planning, etc.).*

|  |  |  |
| --- | --- | --- |
| **Title** | **FTE** | **Tasks** |
| Restoration Director | 0.1 | Overall project coordination and oversight. |
| Restoration Ecologist | 0.5 | Topographic data collection, CAD Design, Design and Alternatives Development, Reporting |
| GIS and Data Specialist | 0.2 | GIS support for report Preparation |
| Botanist | 0.2 | Vegetation Surveys, Design Development |
| Natural Resource Technician | 0.4 | Survey Assistance |
| Finance Director | 0.1 | Billling and Contracts |
| Accountant | 0.1 | Billling and Contracts |
|  |  |  |
| **Total** | **1.5** |  |

1. *Discussion of the situation of the 303(d) listing for D.O. and fecal coliform, and how the proposed restoration design will improve water quality.*

Ecology currently lists the site on the 303(d) listing for D.O. and fecal coliform. According to the listing, the stream has not been resurveyed in the last 9-10 years. To our knowledge, no remediation efforts have occurred in the watershed, and a subjective look at the airphoto record since listing shows an increase in development within the watershed. By removing the stream from its current incised ditch, the project will lengthen the stream channel, thus reducing gradient and stream velocity. This, combined with greater access to floodplains and higher quality wetlands (particularly during storm and high water events) are expected to improve water quality through increased infiltration time for pollutants and vegetative uptake, which is expected to decrease nutrient loading, reducing fecal coliforms and increasing dissolved oxygen capacity .

1. *Discussion of “reference conditions” on the island and how they will be used to inform the design. The review panel suggests that the watershed draining into Lake Hancock and the relatively pristine creek conditions upstream/west of the Meerkerk Rhododendron Garden property might provide useful data on vegetation and stream morphology reference conditions.*

Reference streams such as those mentioned offer excellent opportunities to study channel morphology and vegetation conditions at sites that are much less impacted than our proposed restoration site. Although we will utilize the shadow of the historic channel as guidance for the alignment of the restored channel to the greatest extent possible, reference streams can offer insights into natural channel cross section, floodplain connectivity, channel substrate, meander rate, and vegetation community composition, among other things. We intend to utilize such streams where warranted by assessing channel dimensions and vegetation communities that can help to inform our grading and planting plans. A lidar assessment of floodplain morphology and watershed size can be used to determine channel migration rates, allowing assessment of risks to site infrastructure and adjoining properties. Our proposal has been updated.

1. *Please include a task for wetland reconnaissance and impact assessment in the scope of work, since the new channel alignment will impact some area of wetland. It is likely that the USACE wil view the project as self-mitigating for wetland impacts, since the existing dredged channel will be filled, but the project will need to go through the proper steps to assure this.*

Although we failed to mention this in our preliminary proposal, a wetland delineation was conducted as part of the 2008 feasibility project. We intend to use the wetlands mapped in the report as our basis for assessing the wetland impacts of our design. Our proposal has been updated accordingly.

1. *Please also adjust the proposed cost match budget to cover 15% of the total project cost, as required in Manual 18. Alternatively, this project could qualify for a no-match grant if it meets the criteria in Manual 18.*

This project qualifies for a no-match grant. However, PRISM still appears to show a match requirement. Although no match is required, Navy in-kind match is expected to account for nearly 13% of project costs.

**Responses to questions following presentation of the project to the WRAC:**

1. *Why doesn’t this project address restoration within the upper stream reaches? Will the project still offer benefits without upper watershed restoration?*

This project is currently focused on the lower Crescent Harbor Creek watershed because it is on a property with a single willing landowner, and for which a detailed feasibility assessment has already been completed. It offers tremendous benefits in terms of connectivity to the adjacent Crescent Harbor Salt Marsh restoration project, and is demonstrably impaired from its historic condition. An improvement to habitat conditions in the lower portion of the stream will have immediate benefits for ESA-listed juvenile Chinook salmon as well as coho and other native species. In these respects, this is a project that has a very high likelihood of success and will offer benefits as a standalone project. However, we recognize that improvements to upstream conditions would increase the effectiveness of the project. Because restoration in the upper watershed involves multiple landowners, it may be a more challenging prospect to accomplish.

We suggest that restoration in the lower portion of Crescent Harbor Creek could help to build momentum for other restoration efforts further upstream, so a focused outreach effort taking place in tandem with restoration design work could help to lay the groundwork for future restoration while still allowing this highly feasibly project in the lower watershed to move forward. To this end, we have updated our budget to include a small outreach component targeted at beginning this conversation with landowners in the upper portions of the Crescent Harbor Creek Watershed. SRSC may partner with volunteers or interested organizations for this work.