May 14, 2009

Stephen Atkinson
Planning Division
Community and Economic Development
City of Tacoma
747 Market Street
Tacoma, WA 98402

Dear Mr. Atkinson,

We are University of Washington Tacoma students who conducted a salmon habitat assessment along Marine View Dr, in between the mouth of the Hylebos waterway and the Crow's Nest Marina, as part of our *Conservation Biology in Practice* course. We studied and observed the nearshore habitat quality, particularly for chinook salmon. In the course of this study, we have learned a lot about the mechanisms involved in preservation and restoration, and in looking at the current draft of the Shoreline Restoration Plan, we have some suggestions for the improvement in the effectiveness of the proposed plan.

We feel that it would be best to reevaluate the current application of the "no net loss" policy in section 3.2. We feel that restoration should not meet at or slightly below the degraded current baseline, but rather strive for a higher quality of shoreline.

In order to accomplish this goal, we think it's advisable to implement stricter rules and regulations, resulting in harsher penalties for offenders and violators. More community oriented policies would allow the coastal environment to be as natural possible. For example, shared versus private docks would decrease the coverage of, and therefore the negative impacts of, overwater structures.

To assure the public's acceptance of and cooperation in restoration of privately owned lands, a better attempt at public outreach is necessary. People should be better informed of the environmental, economical, and social impacts caused by degradation of their nearby waterways.

Along Marine View Drive, we have noticed some of these problems. To solve these, we have come up with a short list of activities that would no doubt be beneficial to include in the Shoreline Restoration Plan. They are listed as:

- Garbage collection along the shore
- Old piling/bulkhead removal
- Establish further coastal regulations for shoreline construction
    - Less over water structures, riprap, and bulkheads
- Invasive species removal with more native species planted in their place
    - More riparian vegetation
    - Eelgrass
    - Kelp beds

- Remove bottom wood debris
- Sampling for water quality and sediment contamination

We are willing to provide you with the results of our salmon habitat assessment and various field observations in order to assist in your restoration efforts. The data we have collected includes the evaluation information from the east and west sides of Commencement Bay. Possible data types that need expanded upon over time for environmental health indicators are dissolved oxygen, temperature, water column quality, and sediment contamination.

We hope that these suggestions prove valuable to you in the drafting of this plan, and that we soon may enjoy a more environmentally friendly and stable Commencement Bay.

Sincerely,

Shawn Buck, Zach Griswold, Jamie Gruber, and Travis Irving
Environmental Science and Studies students
University of Washington Tacoma

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Stephen Atkinson
Planning Division
Community and Economic Development
City of Tacoma
747 Market Street
Tacoma, WA 98402

Dear Mr. Atkinson,

Recently, our *Conservation Biology in Practice* class at University of Washington Tacoma conducted a salmon habitat assessment of Commencement Bay. The class was divided into two groups that surveyed the shoreline on the East and West sides of the bay. Our group worked on the east side. On each side, we surveyed three different assessment units. During the assessment we evaluated several aspects of the shore, specifically focusing on hydrology, shoreline modification, water quality, chemistry, biology, geology, geomorphology and wood. We found that the shoreline habitat varied in quality at each of the locations, as well as in restoration potential.

After reviewing the Shoreline Restoration Plan, we found some of the highlighted goals of the plan to be in line with our restoration proposals. However, we feel that the goals should be more streamlined and applicable to specific habitat locations and characteristics. For example, the general goal of "improving water quality" could be separated into several goals that have specific measurable outcomes and proposed actions, such as the removal of creosote pilings.

In addition to the removal of pilings, there are several other restoration opportunities that should be prioritized. These include the removal of riprap bulkheads that line nearly all of Commencement Bay. The assessment unit that encompasses Puget Creek should be a priority of riprap removal because of the turnaround potential for restoring this habitat to levels that would sustain salmon runs. In areas where it is structurally feasible, these revetments could be replaced with soft armoring that would have far less impact on the riparian edge of the intertidal zone. This would be the first step in restoring viable and healthy habitat for salmon and other species, as it could be re-vegetated with native species and other sources of large woody debris. The large wood could be brought in and permanently anchored for the purpose of providing shelter for young salmon and offer a habitat for a number of other species that comprise the ecosystem. Also, the assemblage of restoration groups would help foster community involvement and educational opportunities. The formation of these groups may result in a faster turnaround of problematic areas and be an advantageous addition for the stakeholders already committed to the overall health of the bay.

We look forward to the further discussion of restoration ideas that can be implemented soon for the betterment of the quality of life in and around Puget Sound.

Sincerely,

Staci Johnson, Katherine Patterson, Canyon Little, and Shristi Prakash
Environmental Science and Studies students
University of Washington Tacoma