

Comments on Western Port Angeles Harbor Draft Damage Assessment and Restoration Plan (DARP)

- 1. The DARP makes a convincing case that Alternative A – Trustee-managed Restoration Program is the most cost-effective way to proceed.** Formation of the Trustee Council fits within standard guidance for NRDA. The Trustee Council members have demonstrated their capability of repairing a site impacted by wood mill activities in Discovery Bay. Trustee Council members have demonstrated their capability of improving salmon spawning in Elwha watershed. These systems are much less urbanized than Western Port Angeles Harbor, so the choice of projects will be modified, but the Council Members have demonstrated that they can put together and manage good teams. The weakness of the Trustee Council structure is the absence of Port Angeles city or Clallam County planning participation. Much of the discussion presumes watershed areas far beyond the jurisdiction of Council Members, which will likely impede the success of some of the proposed ideas discussed in the DARP.
- 2. Given that repairing the NRDA damage would be hard to demonstrate and that the Trustee Council has proven capabilities in improving resources relevant to Western Port Angeles Harbor, the most effective public compensation for lost natural resources would be to select from a list of capabilities of the Trustee Council Members.** Presumably, this approach was taken by the Council in determining its negotiating stance with the parties in its development of a cost proposal. In its Proposed Estimate of Natural Resource Damages in Port Angeles Harbor (<https://apps.ecology.wa.gov/publications/documents/1609142.pdf>) a national modeling strategy was used to calculate DSAYs and damage. The uncertainties in such model estimates are admittedly quite large as demonstrated by the use of a slightly different model from the St. Lawrence River that produced an impact estimate that differed by a factor of three. While sediment habitat degradation by wood debris and the presence of selected metals and organic contaminants above SMS criteria appear to be the critical stressors” (Table 6-1), very little sediment toxicity is seen with amphipods or polychaetes. No biological or ecological data were presented to demonstrate measurable damage to western harbor marine life. As a result, targeted activities to repair “damage” that would allow measurable improvements are unlikely because the baseline has not been quantified. NRDA legislation allows the Trustee Council Members to pursue to restore, replace, or acquire the equivalent of those natural resources injured (e.g. Port Gardner, https://casedocuments.darrp.noaa.gov/northwest/port_gardner/pdf/PortGardner-Final-DARP-ED2016.pdf).
- 3. The seven restoration goals developed by the Nearshore Project (Cereghino et al., 2012) that serve as the principles for the project are well-founded, but their value given the constrained funding stream must be considered.** For instance, to apply Goal 3 of “restoring physical processes” to improve the sediment budget necessary for providing hundreds of millions of tons to the shore with the uncertainty of coastal process response to sea level rise seems far beyond what this DARP could accomplish.
- 4. The damages to Western Port Angeles Harbor reported by DOE indicate that “marine vegetation and benthos are the receptor groups most at risk from current environmental conditions (p. 80 in in Port Angeles Harbor Port Angeles Harbor Sediment Characterization**

Study <https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Cleanup-sites/Puget-Sound/Port-Angeles-Harbor>) thus suggesting that highest priority be put on projects in Area A. These shallow subtidal habitats along the inner edge of Ediz Hook offer other benefits that increase the probability of successful DARP projects—park ownership that could ease permitting and public acceptance, ease of equipment access from land and sea, and the presence of “rare or vulnerable species” (Nearshore Project Goal 6). Importantly, Area A is likely to be the easiest location to accomplish projects in a timely fashion. While DSAY impacts are mostly driven by wood covering the bottom, activities to remove or cover that material would probably have more impacts than simply letting it recover naturally. Placing boulders for rocky habitat or seeding eelgrass in shallow areas are proven, implementable projects.

5. **Areas C and D should have the lowest priority for projects.** The stretch along the waterfront is marked by a number of overwhelming risk factors (active railroad/bike trail, future nearshore development, future watershed development) as developed by the Nearshore Project that preclude cost-effective successes. In addition, the jurisdictional governance issues faced by the Council Members also ranks this area low. As the Rayonnier project proceeds, there may be some joint actions available but their long delay makes them low priorities.
6. **Area B, particularly the lagoon, affords a number of risks and possible benefits.** Property maps on the web suggest it is entirely owned by the paper plant and receives treated wastewater. The creekmouth and nearby shoreline is heavily industrialized, but this issue can be overcome. In California, my agency built a horizontal levee wetlands system to address water quality, bird habitat, and sea level rise on a similar industrialized site in San Francisco Bay (<https://oroloma.org/horizontal-levee-is-thriving/>) for about \$1 million per acre. The design and construction took about a year: the permitting and negotiation with neighbors took 2 years. The spiritual and cultural value of the Tse-whit-zen site, the uniqueness of the lagoon as a local habitat, and its accessibility make lagoon projects an attractive option, but only if the Council Members can easily solve the ownership and permitting issues. There are certainly wetland opportunities at the site.
7. **The public would also be best served by the Trustee Council formally limiting administrative overhead for the overall project (e.g., 10% and nothing for the Federal and State partners) and pursuing a rapid response.** A tight administrative commitment would demonstrate the Council’s commitment to the cost-effectiveness of Alternative A and also create an incentive for speedy decision-making. With NRDA’s inflation factor a ten year delay reduces program value by one-third. The Council should propose their draft projects this summer. An excess of process has costs to the public benefits.

My stakeholder role. I am a frequent Peninsula tourist and recent retiree hoping to relocate. My expertise is mostly wetlands (WHOI Ph.D.), sediments (Boston Harbor Clean-up chief scientist), water quality (SFEI GM and NEAq VP), and coastal management (founding EPA staffer for three NE NEPs and EPA consultant to John Armstrong when he started PSEP at EPA10).

Sincerely,

Michael Stewart Connor, Ph.D.