

I want to submit the following comments on the Port Angeles Rayonier Mill Site:

- I endorse Option 5 (full removal) as the appropriate, long-term approach that provides for public safety, environmental health and lowest overall risk. Other alternatives do not result in long-term protection for human health and the natural environment.
- I understand that MTCA and other regulations are fairly prescriptive, however, I don't think your application of these regulations adequately takes these considerations into account:
 - *Likely costs of future additional remediation:* Further remedial actions and higher costs are likely for two reasons. First, our scientific understanding of the effects of toxic materials continues to grow and there is no reason to believe our knowledge won't continue to increase. Materials and levels that are acceptable now very likely won't be acceptable in the future. Second, the cost of remediating contaminated sites has increased significantly over time. In 1980, the initial Superfund program allocated \$1.6 billion for cleanup, averaging \$3.6 million per site. By 1990, the EPA estimated total cleanup costs at \$27 billion, averaging \$26 million per site. Recent estimates suggest that cleaning up all Superfund sites could exceed \$1 trillion, considering stringent standards and additional sites under various jurisdictions. These national trends are likely to apply to this site; there is no reason to think otherwise. Removing contamination during initial remediation avoids or minimizes this risk.
 - *More intensive and extensive public use of the site:* As you are aware, both the City of Port Angeles and Clallam County are updating their Comprehensive Plans in accordance with the Growth Management Act. By 2045 the City's and County's populations are projected to grow by 3,150 and 14,840, respectively. The City is proposing residential and recreational land use in the site area, and the County's increased population will further increase demand for recreational areas and shoreline access. Most importantly for the decision at hand these increases won't end in 20 years – they are most likely to continue well beyond that time. Remediation after the site has been developed would be much more difficult, disruptive, and costly than removing contamination during the initial remediation.
 - *Costs of additional measures to adapt to rising sea levels (climate change):* The proposed action acknowledges additional study and design is needed to adapt to changes in shoreline dynamics and sediment transport as sea levels rise. Unfortunately these changes now appear certain well into the next century. This means on-going adaptive measures

to ensure toxic materials are not released. If the materials are removed during the initial site remediation these future measures would be unnecessary.

- *Potential costs of protective measures:* The proposed preferred alternative includes ongoing monitoring and maintenance and so implicitly acknowledges that toxic materials remaining at the site would continue to pose a risk to human health and the natural environment. Many of the contaminants, such as metals, remain toxic for many decades and it does not appear the present value of monitoring and maintenance for the full duration of the risk is adequately incorporated into the evaluation. Obviously if the materials are removed these future costs are avoided.

In summary, while your analysis shows Option 5 appears expensive relative to its benefits, I believe a more realistic evaluation that recognizes likely and potential long-term costs of additional cleanup actions would show full removal is the most prudent and ultimately the least expensive alternative.

