## **Port Townsend AirWatchers**

It is welcome to finally have cleanup action in sight. However, in agreement with comments submitted by Dr. Peter deFur and others, the proposal offers cleanup alternatives come from standard operating practices of the past and have been shown to be less effective than methods that have been developed and developing over these most recent two decades and are ripe for use here.

In the last couple of decades much research and many trials have allowed for better methods that actually remediate the contaminated areas. Much work has been done, e.g., with fungi (even underwater varieties), and other bio-forms that don't merely accumulate but actually convert the contaminants. I highly encourage the agency to review literature and consult with those who have been developing these methods, including your area's own Batelle Institute and Dr. Paul Stamets at the region's Fungi Perfecti, for instance.

This site would be an ideal proving ground for methods that these and other researchers have been developing and testing, and I submit that whatever of those methods tried, it would likely be much cheaper and more effective.

Of the proposals that are offered:

• Excavation and removal merely moves the problem from one place to another, replicating the contamination in another ecosystem. As they say, in the environment there is no "away" in which to throw things.

• Cover and contain: the contamination is still there. An impermeable cap means that that layer has effectively been killed. It ignores that mobility between soil strata is part of natural soil health.

• Cover and "jump start the natural recovery process" with sand or gravel layers. This one is baffling. Given the litany of chemicals that have accumulated in the Western Port Angeles Harbor sediments, this is a centuries-long process, so "jump start" is a conceptual stretch.

• Check on natural deposition: by itself, equals "do nothing" which is unacceptable as it merely leaves the contaminated mess. Checking on the process regularly should be part of any cleanup process.

A method or methods that actually convert the toxins in situ without killing or removing the natural living living harbor, have ripened for present use and would be much more cost effective and beneficial to the health of the site as a whole. I submit a request that those methods be used instead.

Thank you for your consideration, Gretchen Brewer