

## Jean M. Avery

The NWIW refinery would be harmful to oceans and marine life -- both because of shipping and also because of the plastics produced.

### SHIPPING

The marine route from Kalama to China is more than 5,000 nautical miles (p. C-13). Added into the Second SEIS is a stunning map of the route: literally from one end of the earth to the other (p. 48). Huge tankers would transit down the Columbia River -- across the dangerous Columbia River Bar -- three to six times per month. After unloading, the vessels would return empty. This 10,000-mile round trip would use marine fuel, which impacts water quality and marine life. There are also risks of spills. None of this would be mitigated, because the SSEIS clearly states that there will be no mitigation outside of Washington state.

### PLASTICS

The Second SEIS states that the end uses of methanol would be 40% fuel and 60% olefins. Olefins can be used in plastics, resins, fibers, lubricants, and gels.

According to the Ocean Conservancy, plastics pollute oceans from the surface to the sea floor, affecting all forms of marine life -- from planktons to whales. Studies show that plastic has been found in sea turtles, sea birds, and even fish sampled from restaurants. In addition, there are harmful impacts to local economies if seafood or beaches are spoiled. The best solution is to prevent the plastic production at the source. Plastics are harmful to oceans, marine life, waterbirds, and beaches -- and yet, there is no planned mitigation by NWIW for such environmental damage.

### GLOBAL IMPACTS CANNOT BE MITIGATED

In summary, the NWIW refinery could have widespread deleterious effects on oceans globally. If the Dept. of Ecology approves this project, might Washington inadvertently be harming oceans far beyond its borders? This is certainly not consistent with Ecology's stated mission. In fact, such a globally impactful project is likely beyond the purview of one state's Dept. of Ecology.

Please deny the permit for this project.