

# Walton Dickhoff

• I write in support of Cooke Aquaculture's application to culture steelhead in net pens in Puget Sound. I am a retired Professor of Fisheries at University of Washington and retired Senior Scientist at NOAA Fisheries National Marine Fisheries Service. Most of my professional career involved research on salmon biology applied to sustaining Pacific salmon through improving public salmon hatcheries to reduce impacts on naturally reared fish as well as using conservation aquaculture to enhance populations of salmon listed under the Endangered Species Act. I have studied the development of commercial net-pen aquaculture in Puget Sound since its beginning and co-authored the paper: Environmental Performance of Marine Net-pen Aquaculture in the United States (Rust et al. 2014; Fisheries Vol. 9, No. 11, November 2014. <https://doi.org/10.1080/03632415.2014.966818>)

The methods and procedures that Cooke Aquaculture uses for steelhead rearing leave almost no risk to native salmon stocks. It is well established that rearing steelhead for only one generation in a hatchery reduces the majority of their fitness to survive in the wild. Cooke's steelhead stocks have been reared in captivity for tens of generations. Furthermore, the high rates of sterilization (99%+) using triploidy make it extremely unlikely that any escaped fish would survive to spawn in streams in the Salish Sea.

The risk of disease or parasite spread from cultured to wild fish is minimal. Steelhead that will be put into net pens are monitored for disease/infection before they are transferred. If an outbreak of disease occurs subsequently (due to infection from wild fish), the net pen fish are quickly harvested to reduce risk. Sea lice infections are only a problem in certain areas of the Salish Sea in Canada. I have reared tens of thousands of salmon in net pens for research in Puget Sound over 20 years and have not seen a single sea lice infection.

Concern about pollution from net pens is overstated considering current guidelines for siting. Adequate tidal exchange and depth requirements along with fallowing minimize impacts on water and seabed quality. Impacts of net pens on water quality are only detectable within 30 yards of the pens.

I fully support approval of Cooke's application. Net pen salmon culture is a safe and sustainable local source of quality seafood. Thank you for the opportunity for public comment.