

# Raymond RaLonde

To: Washington Department of Fisheries

From: Raymond RaLonde, Professor Emeritus, University of Alaska, School of Fisheries and Ocean Sciences

Re: Comments on Cooke Aquaculture Steelhead Farm Proposal

Born and raised in Portland, Oregon, my fisheries educational background began by receiving a Bachelor of Fisheries from Oregon State University in 1969, and a masters from the University of Idaho, Master of Science-Fish Resources, 1989. My fisheries experience consists of three years in Iran as a Peace Corps Volunteer conducting research for managing the fisheries of the Caspian Sea, one year with Metlakatla, Alaska native community training personnel and assisting with construction of their first salmon hatchery, ten years at Sheldon Jackson College in Sitka, Alaska as an Assistance Professor training fish culturist for Alaska's growing Private Non-profit Salmon Enhancement Program, two years as a fisheries habitat biologist for the Oregon Salmon Trout Enhancement Program (STEP) where I directed habitat rehabilitation, managed an extensive hatch box program, and then finishing my career with 25 year years as a Full Professor of Fisheries for the University of Alaska School of Fisheries and Ocean Sciences where I was involved in research, teaching, and public service in the areas of salmon and shellfish aquaculture and public outreach

In Alaska, wild stocks of salmon and steelhead are abundant and wide spread. Alaska also has an extensive private non-profit hatchery program producing juvenile salmon that are pen-reared in remote commercial fishing locations prior to release to improve juvenile survival upon release, direct the salmon homing migration to commercial fishing waters, managing and controlling the fishery, and improve harvest quality. In this process of "salmon ranching", we have learned much about pen construction, deployment, and management of pen rearing that is relevant to steelhead farming.

Opposition to fish farming to protect wild runs is almost dilutional. What wild runs? Decades of successful production and stocking steelhead throughout the Pacific Northwest, hatchery enhancement has been so successful that finding a true wild salmon or steelhead is unlikely. As a STEP biologist in Oregon I participated in the wide spread 2-year project to locate wild steelhead by collection scales for circuli pattern analysis, but with no success.

My experience has convinced me that net pen to rearing of fish, has proven to be effective in habitat maintenance and protection of water quality when best practices are used in site selection, rearing pen designs, culture techniques, and environmental monitoring.

The potential for dumping excess fish feed into marine waters is managed by farmers using underwater video and audio surveillance to optimize feed consumption. After all, fish feed is a significant business expense and overfeeding is equivalent throwing money overboard.

Cooke Aquaculture Pacific complies with practicing environmental standards, culture practices, and Washington State regulations for culturing Atlantic Salmon, not native to the State of Washington, and I see no compelling argument that should prevent the farming our own native steelhead.

This breadth of experience has given me convincing evidence that environmentally responsible fish farming is necessary to supply the demand for high quality, healthy fish for our economically

and demographically diverse society. Harvest from wild fisheries is simply not able to meet the demand.

In summary, I suggest that Washington spend more effort and funding to fix the real problem of habitat destruction by rehabilitating instream and riparian habitats for juvenile salmon and steelhead trout

Thank you for allowing me to make comments on this project