

Peter Becker

To: Director, Washington State Department of Ecology

Subject: Net Pens for fish/fish holding/fish rearing in the Inland waters of Washington State: in particular; Steelhead Trout in net pens in Port Angeles Harbor

Dear Sirs:

Much misinformation exists about:

1. The long, successful role of net pens for fish/fish holding/fish rearing in the inland waters of Washington State
2. The historical presence over the last 150 years of net pens
3. The absolute requirement for net pens
4. Fish pens, fish veterinary science, and disease control
5. The international treaties that require many of the 150 hatcheries in Washington State.

1. Net pens for fish have existed in Port Angeles going back to the existence of fish traps and fish-wheels which were present up until 1937. At that time, due to the excessive take of salmon by the fish trap and fish wheel owners, treaties designed to limit the excessive were signed by Governor Clarence D. Martin and the fish traps and holding pens disappear. As usual the cause was commercial fisheries abuses.

To help restore West Coast Salmon fisheries in the 1970's through the 1990's period, net pens were again employed in numerous bays and coves in Admiralty Inlet and Puget Sound by tribal, private and social groups, from Trout Unlimited and fishing clubs to the Sea Scouts. In the Delayed Release Programs for Pacific Salmon originated by WD Director Milo Moore decades earlier, smolts were often irregularly hand fed with varying results, but were released with no veterinary oversight. Lack of sufficient oversight by Washington State Department of Fisheries certainly was problematic..

2. In then 1970's, the development of Atlantic Salmon rearing facilities at Manchester, WA were established for restoration of East Coast Atlantic Salmon (endangered by habitat destruction on East coast rivers dating back 200 years, as well as over fishing by commercial fishing interest).

Dr. Conrad Mahnken worked with Norwegian interests, and net pen rearing holding of the many recovered separate East Coast river stocks were accomplished with no problems. No danger was anticipated as numerous attempts failed to establish Atlantic Salmon on the west coast dated back to Spencer Baird, Livingston Stone, David Star Jordan and US Bureau of Commercial Fisheries in

the post Civil War ->1950's period.

2. Cont'd. The Atlantic Salmon Restoration project was in Washington State because the State had a long history of fish hatchery development and employment for salmon stock restoration and maintenance. This history dated back to the 1880's when the first Sockeye hatchery was built on the Skagit River to offset the loss of fish due to dam construction blocking the upstream access on the Skagit River, all the way into British Columbia, for massive returning runs of Skagit River Sockeye.

The Washington State Constitution written in 1851 forbade "...the construction of dams without fish ladders...". In the 1880's the State chose hatcheries instead

of fish ladders for the Skagit River Dam. The State Commissioner of Fisheries, Mr. A. C. Little, made sure the Skagit Hatcheries was quickly acquired by the U.S. Bureau of Commercial Fisheries, as it appeared the operators were not going to maintain the Skagit hatchery.

A major reason for today's problems remains that the Washington State Department of Fisheries and the US Bureau of Commercial Fisheries, under Livingston Stone and David Star Jordan, did not believe, and assumed that West Coast Salmonids did not return to a "Native Stream", but simply went to the nearest river to spawn. This belief, and resulting practice, persisted until about 1930 in Washington Department of Fisheries, despite several articles by British Columbian Fisheries in the Proceedings of The Royal Society in England detailing fin clipping experiments showing fidelity of salmonid returns to a native watershed. After the 1930s the philosophy was "Salmon without Rivers" (See: J. Lichatowich, Island Press, 1999)

3. The US imports greater than 65% of its seafood and produces ~35% (Gephart, Halley and Branch, PNAS, May 2019). However, it processes most of the production of the Alaskan Prince William Sound Aquaculture Association in China, as it exceeds the capacity of Alaskans to process it all. Prince William Sound Aquaculture Association produces 43 percent of the Prince William Sound salmon harvest (~34 million Pink Salmo; 3 million Chum; 250 thousand Coho and 1.4 million Sockeye through modern aquaculture). Even in Alaska, there is an absolute requirement to take the commercial pressure off of heavily regulated wild capture fisheries with aquaculture production of fish for food. Many of the "Wild Capture Fisheries" are also heavily supplemented by hatcheries (e.g. the famous "Copper River Sockeye Fishery" (aquaculture style egg boxes and hatchery smolt releases))

4. The very essence of fisheries aquaculture in Washington State has been, and remains, fish pens and farms safety, fish veterinary science, and disease control.

Fish farms have required independent veterinary inspection for the last 20 years if not before.

4. Contd.

The use of fish disease specific vaccines for control of fish diseases worldwide has driven the use, and economics of the only allowed anti-biotic, oxytetracycline (commonly and universally used on

pets and humans), so far down that it has become uneconomic to use in feed under the mandated veterinarian's supervision (with any excess feed destroyed when the disease symptoms are gone) in Washington State.

Commercial hatcheries are far ahead of the Washington State Department of Fisheries in the respect of fish disease and health. Commercial hatcheries must operate at a profit to survive and satisfy customers with healthy, disease free stocks. The Washington State Department of Fisheries, Federal and Tribal hatcheries are required to show only they released numbers of fish to satisfy projected fish returns required by treaties.

The Port Angeles Net pen site has never lost a fish due to an escape from the pens in the many decades of its operation, including the incident in the 1970's when a runaway tanker backed down on the fish pens temporarily. That should be proof enough of its safety record and diligence of its several owners.

5. Fish farming is the business of food production, whether Ocean Ranching in Alaska by Prince William Sound Aquaculture Association, net pen rearing of proven safe Atlantic salmon at Port Angeles, Rich Passage and San Juan Island sites, or Steelhead trout in Yakima Tribal Net Pens in the Columbia River.

In Washington State, ocean ranching from 150 Washington State Department of Fisheries, Tribal hatcheries and 12 federal hatcheries raises fish for sport and commercial catch for food and takes pressure off of remaining wild stocks. In several cases these releases are required by international treaties. (Johnson, Graybill, Joseph and Rosenberg, 2010: Bridging National Borders in North America: Transnational and Comparative Histories). United Nations Food and Agriculture Organization recognized in 2017 greater than 34% of world fish stocks are overfished. Aquaculture food production provides relief for wild stocks.

Rearing farmed steelhead trout in the Port Angeles fish farm site will both raise food and reduce pressure on wild stocks as well as the rearing of Atlantic salmon did in the same site and with far LESS risk and pollution than posed by both historical fish trapping and fish pens, up to 1937, and random, uninspected or monitored Delayed Release Net pens of the 1970's through though 1990's.

Unspecified "wild Fish enhancement activities" will require that observed trends in global climate reverse and fall stream temperatures at the start of the spawning runs stay below

20 C, which they have not. The Fraser River to the north of us was above 20 C for days in 2018 during the Sockeye runs there, according to the Department of Fisheries and Oceans Canada, which is threatening to all salmonids, cold water species by definition, attempting to spawn in the Fraser....to the north of us!

Albert Einstein noted:

"We cawhich is exactly what the group opposing the transition to farmed steelhead in the Port Angeles

site is suggesting.

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BP/S Industries Inc.

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Past Chairman, Marine Technology Society, Puget Sound Chapter (1974-1984)

Past President, Washington Clam Growers Association, Inc. (1978-1984)

Past Treasurer, Olympia Oyster Growers Association, (1979-1984)

Past Chairman, Pacific Aquaculture Caucus Inc. 2004-2014

Past Chairman, Clallam County Marine economic Development Cluster 2000-2008

Past Chairman and Founder, Olympic Chapter, Trout Unlimited, (2004-2009)

Copy Editor "The History of Aquaculture" by Colin Nash, Wiley Blackwell (2011)

Past Chairman, "CoexistProject.US" (for Coastal Marine Spatial Planning) 2011-2013)

Author, "The History of Aquaculture in Washington: 1809-2021, In MS. (2020)n't solve problems by using the same kind of thinking we used when we created them."