Guest Column on Industrial Fish Farming
By Anne Mosness
The Bellingham Herald
August 14, 2001

Industrial fish farming causes many more problems than described in recent articles about sea lice and escaped non-native Atlantic salmon showing up in West Coast and Alaska streams.

Farmed salmon, like farmed shrimp, are offered to the public as bountiful gifts of nature. Yet, under the waterline and out of sight, concentrated fish feces and pollution, disease and parasite transmissions, usage of chemicals and pesticides make industrial fish farms biological time-bombs.

The explosive growth of the fish farm industry has outpaced regulatory oversight and some agencies and industries seem intent on replacing wild salmon with farmed in streams and the marketplace. National Marine Fisheries Service is actively proposing placing open netpens in the US EEZ, the "ExclusiveEconomic Zone", 3-200 miles offshore. Mesh sided netpens have been notoriously incapable of confining fish, with recorded escapes of over 440,000 salmon in one year in Puget Sound and ongoing escapes from fish farm operations in BC and Washington.

The US Food and Drug Administration is close to approving genetically engineered salmon. They grow faster and in colder water than natural salmon, and could conceivably be raised off the coast of Alaska, despite that stateâ€™s prohibition of fish farms in state waters. Gene altered fish are larger, which provides reproductive dominance, yet are genetically weaker. Leading scientists have predicted that interbreeding will lead to the extinction of wild salmon. Maryland has already passed a moratorium restricting GE fish from entering the marine environment. The Whatcom Democratic Women's Club unanimously passed a resolution at their May lunch meeting also calling for a moratorium on GE fish in open netpens, and for future fish farms to be in closed containment systems.

Fish farming is regulated within the Food and Drug Administration (FDA) by the Center for Veterinary Medicine (CVM). There are health risks from chemicals used in controlling diseases and parasites in netpens. The CVM has approved the use of oxytetracycline, ormetoprim and sulfamerazine in fish farms, and also have a category of "Investigational New Animal Drugs" which allows antibiotics and other drugs to be used under certain conditions, even if they are not specifically approved for use on finfish. Some drugs listed for conditional use are: amoxicillin, chloramine-T, copper sulfate, cypermethrin, erythromycin, formalin, human chorionic gonadotropin, 17-methyltestosterone, MS-222, Ovaprim and potassium permanganate.

Sea lice, fungi on fish eggs, barnacles and seaweed growing on netpens require pesticides, antifoulants and algaecides. Children are more susceptible to chemicals, particularly those that affect the nervous system. Exposure to many chemicals at critical times of development at levels believed to be safe for adults could result in permanent brain and nervous system damage in children. Some of these pesticides are also suspected endocrine disrupters, causing defective reproductive systems in humans and animals and decreased sperm counts.

Drug usage can inadvertently breed "superbugs" - bacteria that are resistant to antibiotics. An escaped Atlantic salmon found in British Columbia contained bacteria resistant to 11 common medications, including penicillin, erythromycin, and ampicillin.

Farmed fish are fed pellets made of ground up smaller fish, and since it takes 3-5 pound of mackerel, herring, sardines, anchovies and other fish to make one pound of farmed salmon. Colorants are added to the fish feed, otherwise the salmon flesh would be unappetizing gray. Since carnivorous species of salmon are more easily raised in pens, when they escape they are predators on eggs and young of wild fish. Competition for territory occurs and Atlantic salmon are competitive with wild fish, particularly steelhead.

Local fishing families have been economically devastated by subsidized farmed

salmon flooding the marketplace. Recreational and commercial fishers, conservationists, family food producers, health food proponents, educators, scientists and the media can call for more scrutiny of industrial fish farming.

Salmon is a wondrous food, sustainably harvested, and delicious year around because of flash freezing techniques. The public can easily differentiate and must insist that farmed fish be identified and added colorants listed when displayed in retail cases and on restaurant menus.

Genetically engineered fish can never be allowed to mingle with wild. For the health of the environment, survival of wild salmon and protection of our children from chemicals and pesticides, farmed salmon cannot be raised in public waterways. The farmed fish industry has benefited by socializing their costs and privatizing the profits and with that kind of accounting, we all lose.

Mosness is a former commercial salmon fisher, and is the West Coast Coordinator of the Go Wild Consumer Education Campaign