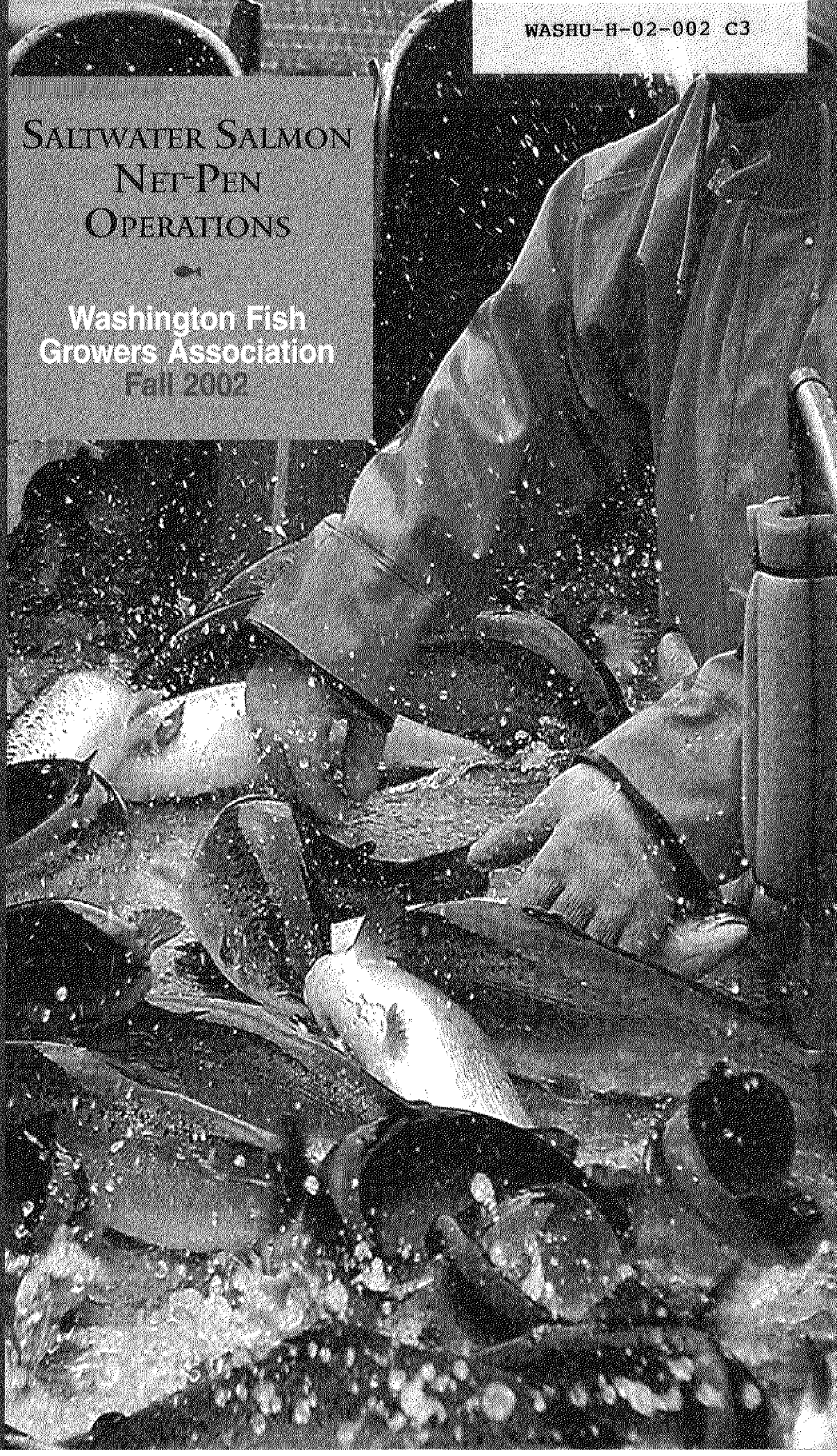
Saltwater Salmon Net-Pen Operations

Washington Fish Growers Association

Fall 2002



Introduction

For over 20 years, Washington state's saltwater salmon farming industry has produced a wholesome, high quality product, respecting demands for consistent, year-round, reasonably priced product from consumers around the country. In small rural communities closer to home, the industry has been a major source of employment, even as jobs in other natural resource sectors have declined.

From the beginning, salmon farmers have been committed to responsible practices that respect the marine environment. This Code of Conduct outlines practices that will ensure effective husbandry that complies with existing regulations and respects and conserves Washington's marine ecosystem.

Under the auspices of the Washington Fish Growers Association, saltwater growers have prepared this Code of Conduct, building on the following respected guidelines for aquaculture practice:

- The Food and Agriculture Organization of the United Nations Code of Conduct for Responsible Fisheries (FAO 1995).
- Technical Guidelines for Responsible Fisheries No. 5: Aquaculture Development (FAO 1997).

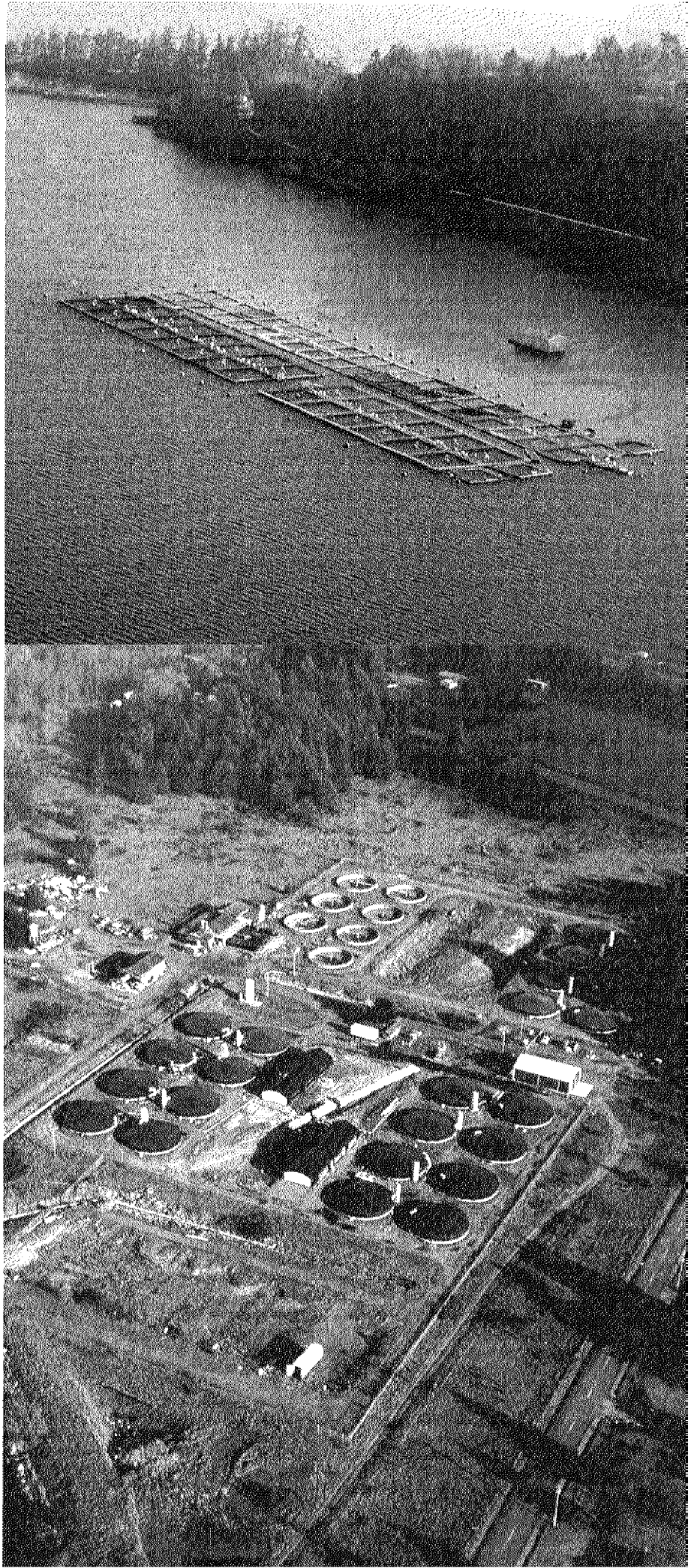
The Code is tailored to the specific conditions relevant to the saltwater salmon farming industry in Washington state.

Nature and Scope

This Code will have general application to all saltwater net-pen aquaculture operations in Washington waters. The saltwater salmon growers have also developed a Code of Practice that more specifically catalogs practices, procedures and regulations affecting day-to-day operations in the industry.

The Code is voluntary, except where state and federal regulations mandate practices and conduct. Washington has extensive regulations for net-pen operations with authority dispersed among several agencies including the state departments of Ecology, Fish and Wildlife, Natural Resources and Agriculture. In addition, local counties manage their respective shorelines and a number of federal agencies (NMFS, U.S. Army Corps of Engineers, U.S. Coast Guard, U.S. Fish & Wildlife Service and U.S. Environmental Protection Agency) have jurisdiction as well. A synopsis of this regulatory structure is included in the appendix of this document.

The Washington Fish Growers Association may revise the Code periodically as regulatory, judicial, operational, scientific and environmental developments warrant.



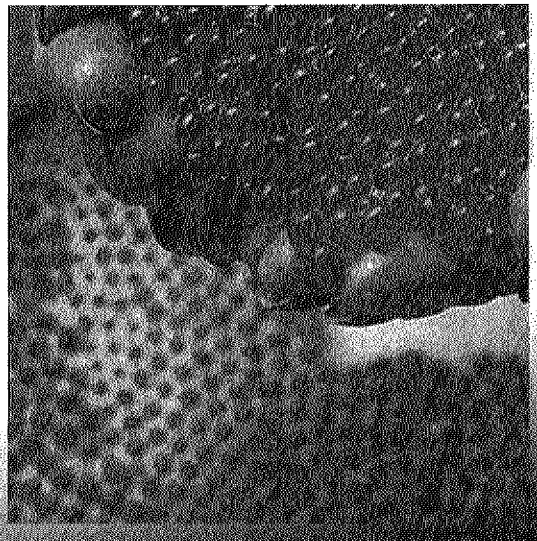
Salmon farms require exceptional water quality. A healthy environment means healthy fish for our farms to harvest. **Scott Ridgeway, fish technician, Rich Passage, Cypress Island Fish Farms**

This community has seen a downturn in the wild fishery and the timber industry over the years. Salmon aquaculture provides stable and well-paying jobs for folks here.
Randy Hodgin, site manager, Port Angeles, Cypress Island Fish Farms

Objectives

The objectives of the Code are:

- To provide standards of conduct for those individuals and companies involved in saltwater net-pen aquaculture in Washington.
- To provide consumers in Washington and elsewhere with an assurance that the saltwater net-pen industry is providing a wholesome product in an environmentally responsible manner.
- To confirm to the Washington Legislature, regulatory agencies and environmental organizations that the saltwater net-pen industry is committed to operating in an environmentally responsible manner.
- To confirm to government and the general public that aquaculture in Washington waters can be ecologically sustainable.
- To provide a template of environmental responsibility for other aquaculture sectors currently operating in US waters and for future operations in the Economic Exclusion Zone.



General Principles

Washington saltwater net-pen salmon growers will:

- Strive to protect and conserve marine ecosystems, using only those sites whose characteristics are compatible with long-term sustainable operations and with acceptable ecological effects.
- Comply with all applicable laws and regulations governing the growing and harvesting of finfish in saltwater areas within Washington.
- Take all reasonable measures to minimize impacts to the environment.
- Monitor any impacts in accordance with agency-mandated requirements.
- Grow and market seafood products in a manner that will maintain the health and nutritional value, quality and safety of those products for consumers.
- Facilitate the use of new technologies, where appropriate, to maintain and enhance protection of the marine environment.

Principles of Conduct

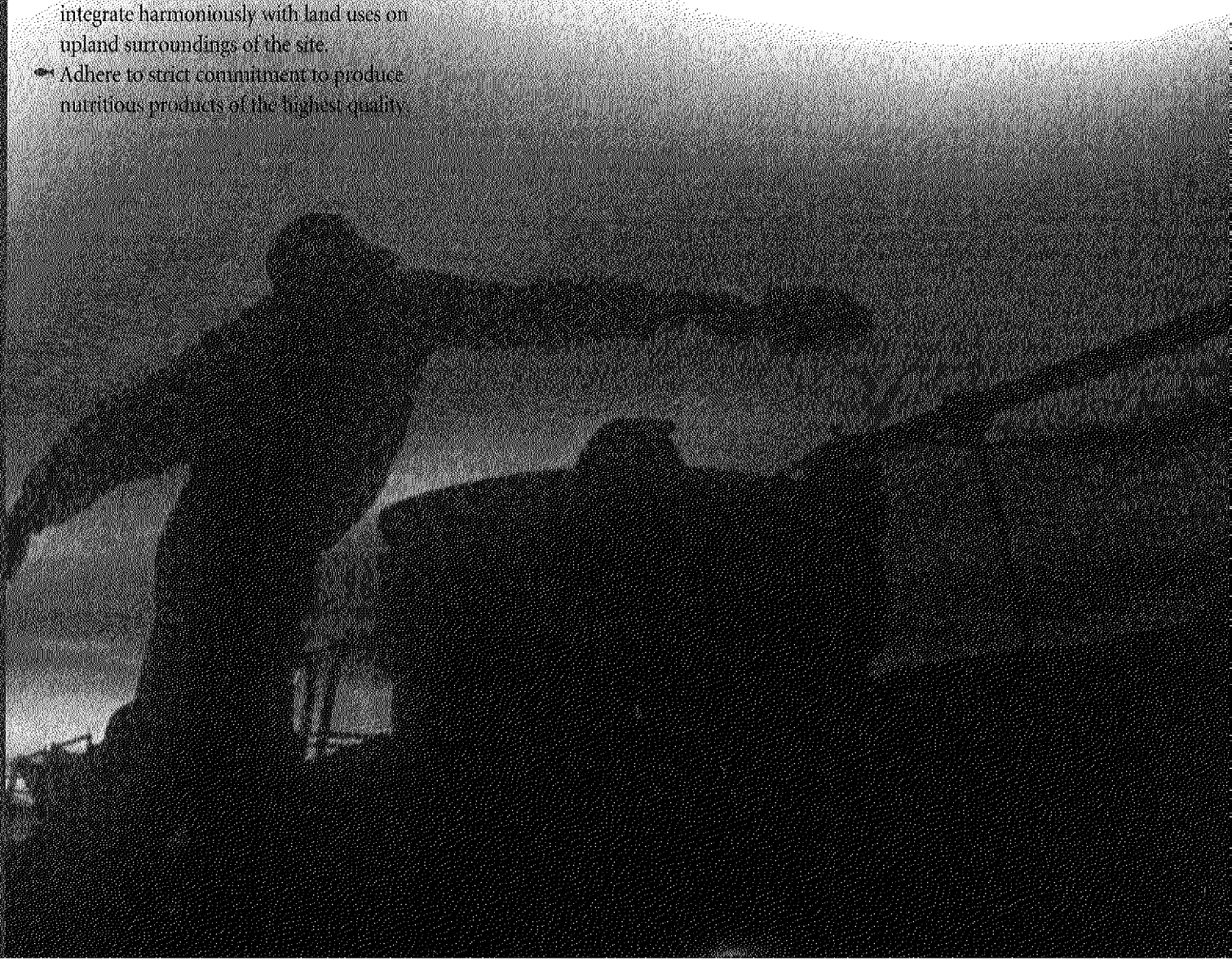
Saltwater fish farmers in Washington will strive to conduct operations that adhere to the following principles:

Welfare of Environment

- Employ appropriate feeding practices and stocking densities to reduce waste, assuring better water quality and minimal impacts on the benthic environment.
- Protect fish and fish pens from marine mammal and seabird predation, using legal, non-lethal methods as prescribed by NMFS and other agencies.
- Consider the needs of other users of waterways and promote methods to minimize user conflicts.
- Implement appropriate training of employees and others working in the industry to insure social and environmental compatibility and address safety concerns.
- Work to ensure that finfish operations integrate harmoniously with land uses on upland surroundings of the site.
- Adhere to strict commitment to produce nutritious products of the highest quality.

Welfare of Fish Stocks

- Keep handling of live fish to a minimum.
- Transport fish with adequate oxygen supply.
- Apply strict control measures when transporting fish to farms and between farms to eliminate escapement.
- Maintain stocking densities with respect to the following requirements: average live fish weight, behavioral needs and availability of adequate oxygen supply.
- Ensure that individual fish have adequate access to feed by using and distributing feeds with proper nutritional ingredients, appropriate to size and stocking density of fish.
- Employ quick and humane harvest methods, including the harvesting solely of fish with empty digestive systems.



- Optimize fish health:
  - Avoid unnecessary stress.
  - Conduct regular inspections.
  - Ensure that juvenile fish brought to farm are in good health and of known origin.
  - Use only licensed and approved therapeutic agents when required, administered by licensed veterinarians.
  - Maintain healthy fish stocks in the hatchery and saltwater sites.
  - Minimize risk of disease spread to marine ecosystems and wild species.
  - Remove dead or dying fish promptly from growing areas and dispose of carcasses in a legal, environmentally responsible manner.

- Washington's saltwater fish farmers ***will not use*** transgenic salmon (as defined by actual transfer of genes from one species to another species) in commercial production in Washington now or in the future.

Containment of Fish Stocks

- By law, finfish farmers in Washington must have a Washington Department of Fish and Wildlife-approved escape prevention plan that includes:
  - Identification of net-pen, anchor and netting technology to minimize fish escapes at the marine aquatic farming location.
  - Procedures to minimize escapes when rearing vessels, pens or cages are moved, repaired or manipulated, or during stocking or harvesting operations.
  - Procedures for routine training of employees and contractors in escape-prevention.
  - Procedures for routinely tracking the number of fish in each pen.
  - Procedures for reporting significant escapes, including an emergency contact list.
  - Procedures for attempted recapture of escaped fish.

Appendix

The Regulatory Structure for Saltwater Net-pen Operations in Washington

A. The Washington Department of Fish and Wildlife (WDFW) has regulatory authority restricted to disease control, escape prevention and mitigation and protection of wildlife in general.

1. The Finfish Import and Transfer Permit (*WAC 220-77-030*) ensures that diseases, pests and predators are not introduced or transferred. In addition, under a legal settlement, WDFW is required to kill and conduct biological examination of any Atlantic salmon encountered by agency staff.

2. *HB 1499*, passed during the 2001 Legislative Session, gives WDFW specific regulatory authority to prevent finfish escapes and mitigate escapes that may occur. Regulatory rules are now being promulgated and the principles in this Code reflect those draft rules.

WDFW, in association with Washington Department of Ecology (WDOE) and Department of Natural Resources (WDNR), provides guidance to state and local agencies siting farms to avoid adverse impacts on the environment. In association with the Department of Agriculture (WDA), it develops disease control regulations with regard to human health and safety.

B. WDOE has regulatory authority over discharges of pollutants into state waters for the protection, preservation and enhancement of the environment.

1. The National Pollutant Discharge Elimination System Permit *(40 Regulation CFR, Part 122.21)*, or NPDES, assures compliance with state and federal water quality laws.

2. The Water Discharge Permit *(RCW 90.48)* regulates discharges from finfish aquaculture operations and assures that they do not adversely affect water quality and standards.

C. WDNR has regulatory authority over state-owned aquatic lands, including all bedlands of Puget Sound under the Aquatic Lands Lease Program *(RCW 79.90-79.96)*, or ALL. All saltwater net-pen sites are leased from WDNR under payment rates proscribed by law.

D. WDA is responsible for assuring the safety of the state's food supply, providing protection from diseases and pests and facilitating movement of agriculture products in domestic and international markets. With WDFW, it jointly develops disease-control regulations with regard to human health and safety.

E. Local counties are lead agencies for applying the environmental policies of the state and the management of their respective shorelines.

1. The State Environmental Policy Act *(RCW 43.21C, WAC 197-11)*, or SEPA, assures consideration of social and environmental impacts of proposed actions.

2. The Shoreline Management Act *(RCW 90.58)*, or SMA, assures appropriate and orderly development of state shorelines, management of their uses, and preservation of their natural character.

F. A number of federal agencies (NMFS, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Coast Guard, and U.S. Environmental Protection Agency) have management and regulatory authority over the use of all waters by the public. The Section 10 Permit assures protection of public interest, including navigation, water safety and water quality.

G. NMFS administers the Endangered Species Act for anadromous salmonids. Jointly in collaboration with FWS and WDNR, NMFS permits the used of predator-control (non-lethal) methods for birds and mammals in accordance with permit restrictions.

H. The U.S. Food and Drug Administration (FDA) is responsible for the protection of consumers by enforcing the Federal Food, Drug and Cosmetic Act, and several related public laws. It is also responsible for the safety of feeds and drugs for pets and farm animals. Salmon farmers are restricted to the use and conditions of only veterinary medicines, drugs and feed ingredients, such as color additives, licensed by the FDA.

My family has been in this business for 15 years. It's important to us to deliver high-quality, good-valued fresh salmon product to consumers in the United States.
Lorenzo Wiese-Hansen, site manager, Anacortes, Cypress Island Fish Farms

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- The Net-pen Salmon Farming Industry in the Pacific Northwest (U.S. Dept. Commerce, NOAA Technical Memorandum NMFS-NWFSC-49).

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