

# Commercial Net Pen Salmon Farming in Washington State



# Icicle Seafoods at a glance

**Icicle is a leading harvester, producer and processor of diversified seafood products in North America.**

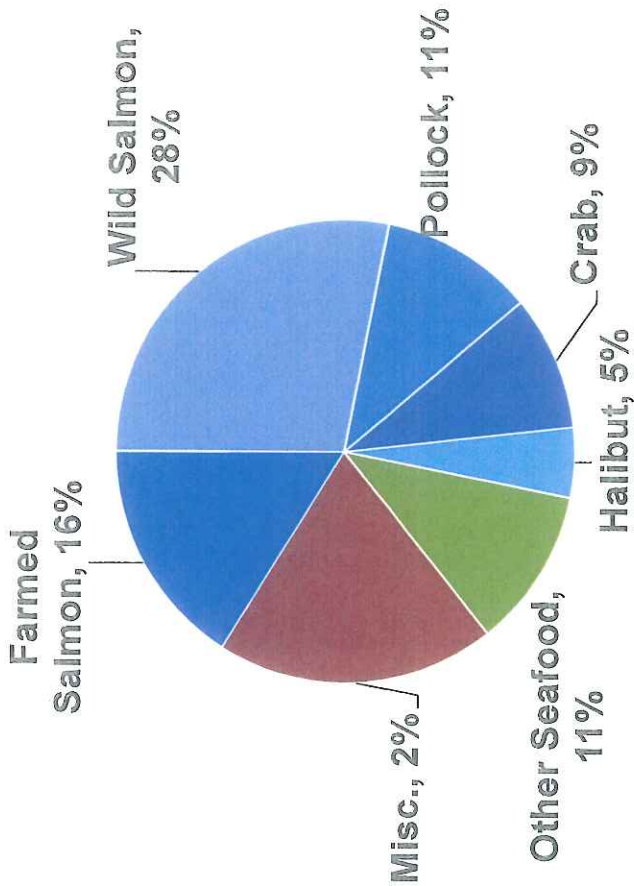
60,000 tons of wild salmon processed and marketed annually mostly in Alaska.

75,000 tons of pollock, crab, halibut, sablefish and cod harvested and marketed each year.

20,000 tons of Atlantic salmon, coho salmon and trout farmed in the U.S. and Chile

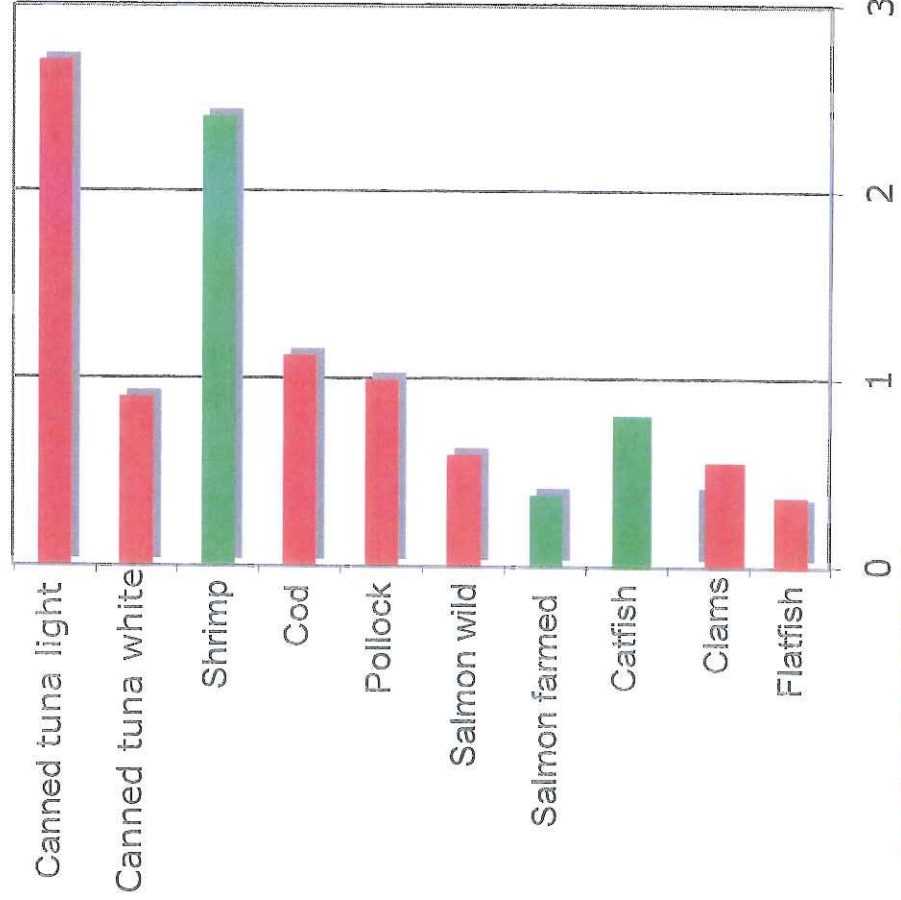
**Products are sold throughout the world to a variety of customers including industrial processors, wholesalers, food service companies and retailers**

## Revenue by segment

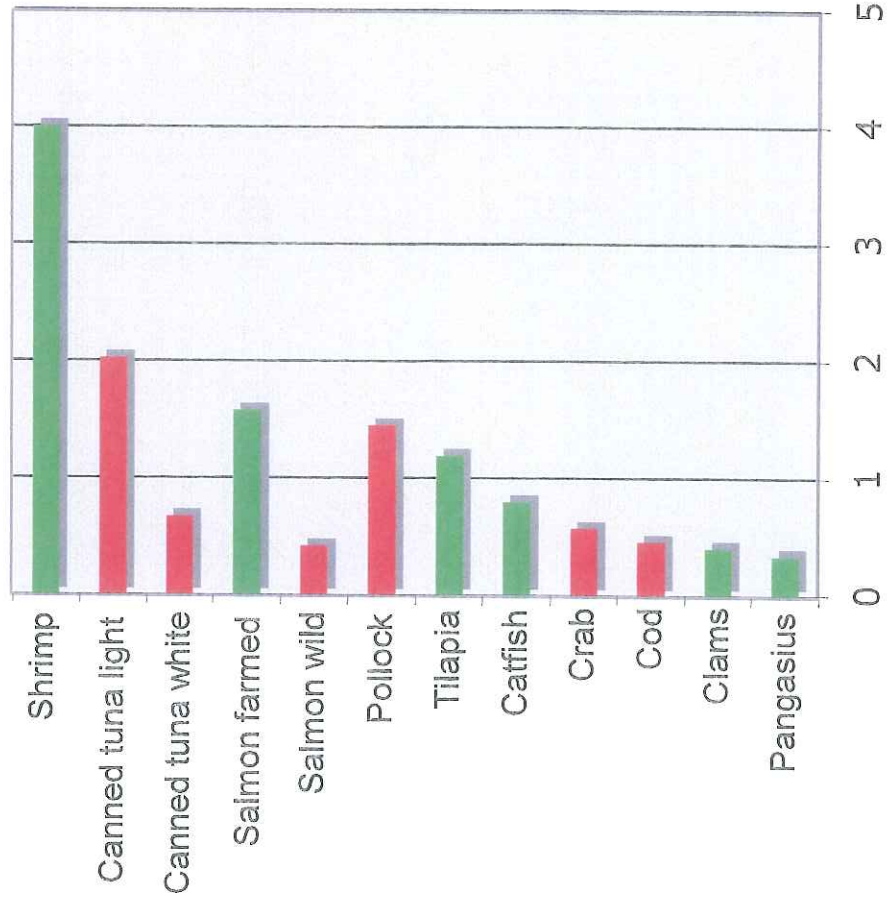


# Changing U.S. seafood consumption

1991: Tuna, shrimp and cod

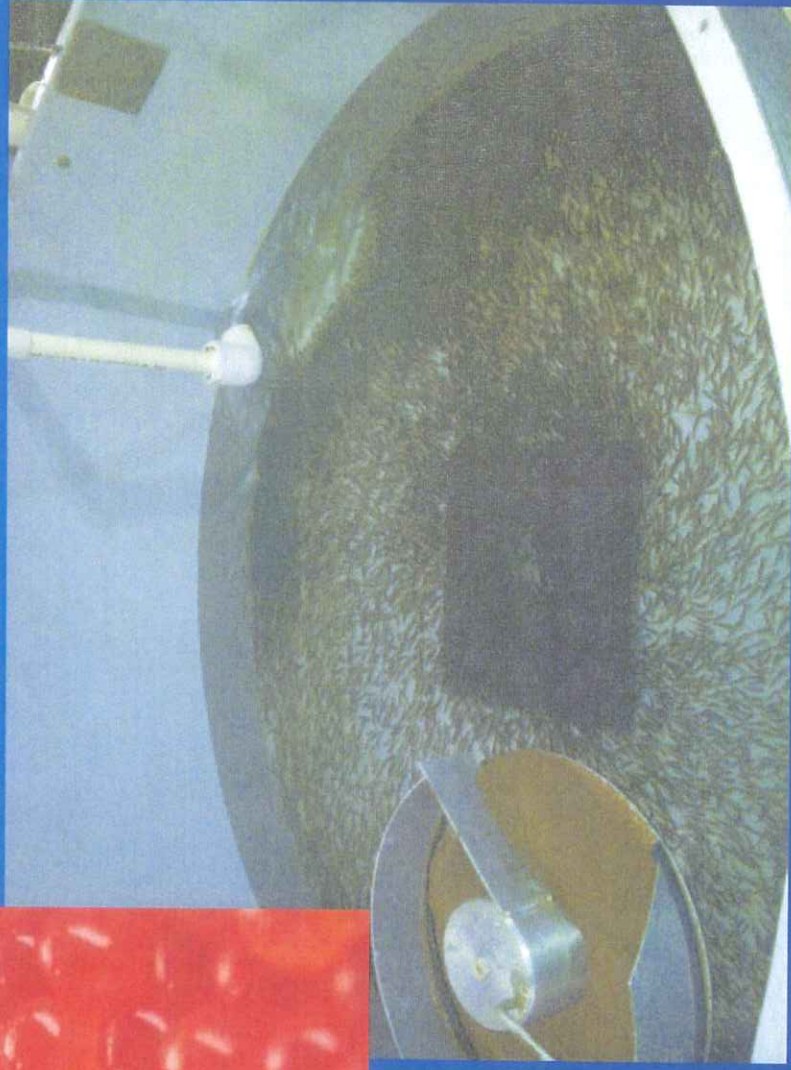
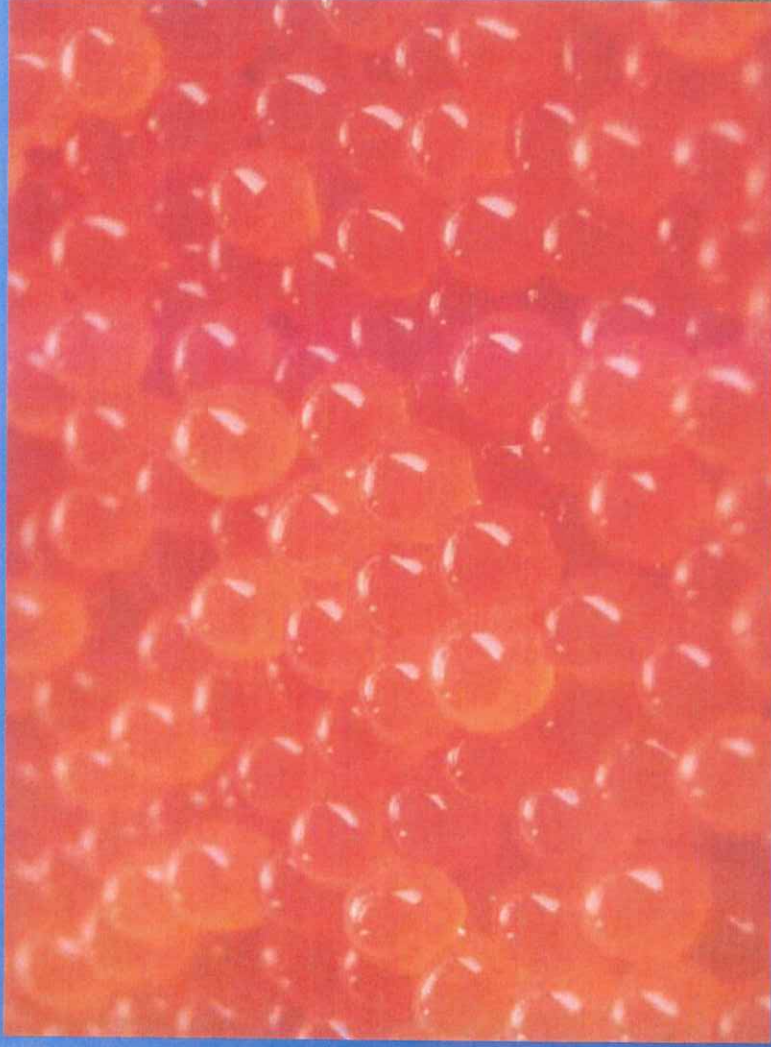


2010: Shrimp, tuna and salmon



Primarily farmed species

# Egg and smolt production



we grow smolts in freshwater  
at our Washington hatchery

# From smolt to adult salmon



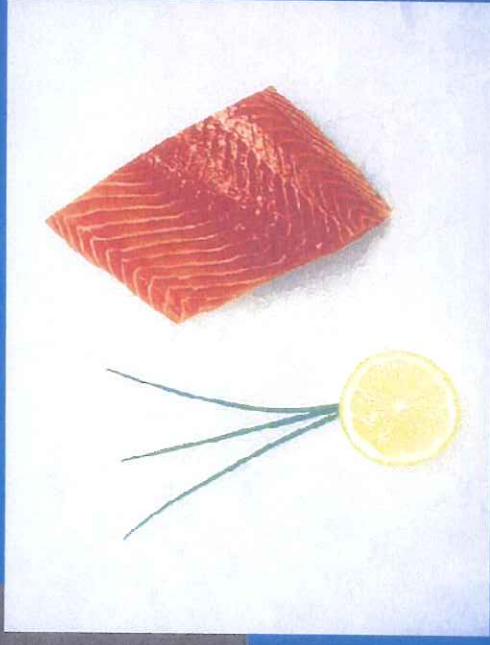
Our salmon grow from smolts  
to harvest in 18 months

# Ocean net pen farming



We pay careful attention to feeding efficiency, site security and fish health

# Harvest and processing



We supply fresh wholesome salmon to the US market 52 weeks per year

# Growth in global farmed salmon

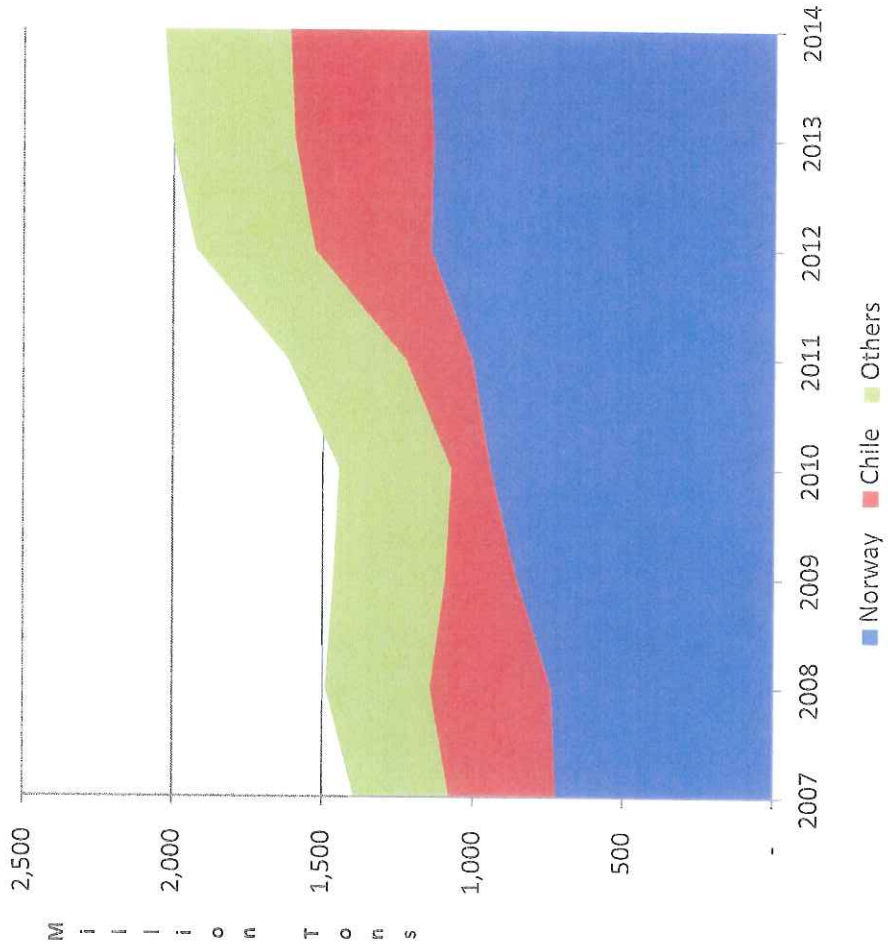
Global farmed salmon consumption has grown steadily for 30 years at 6% to 7% per year

U.S. production - in Maine and Washington - has stagnated at about 25 million lbs

90% of farmed salmon the US consumes is imported – mostly from Chile and Canada

Growing fish abroad increases costs for consumer and leaves jobs and economic benefits behind

Global Farmed Salmon Production





# Salmon farms in Puget Sound

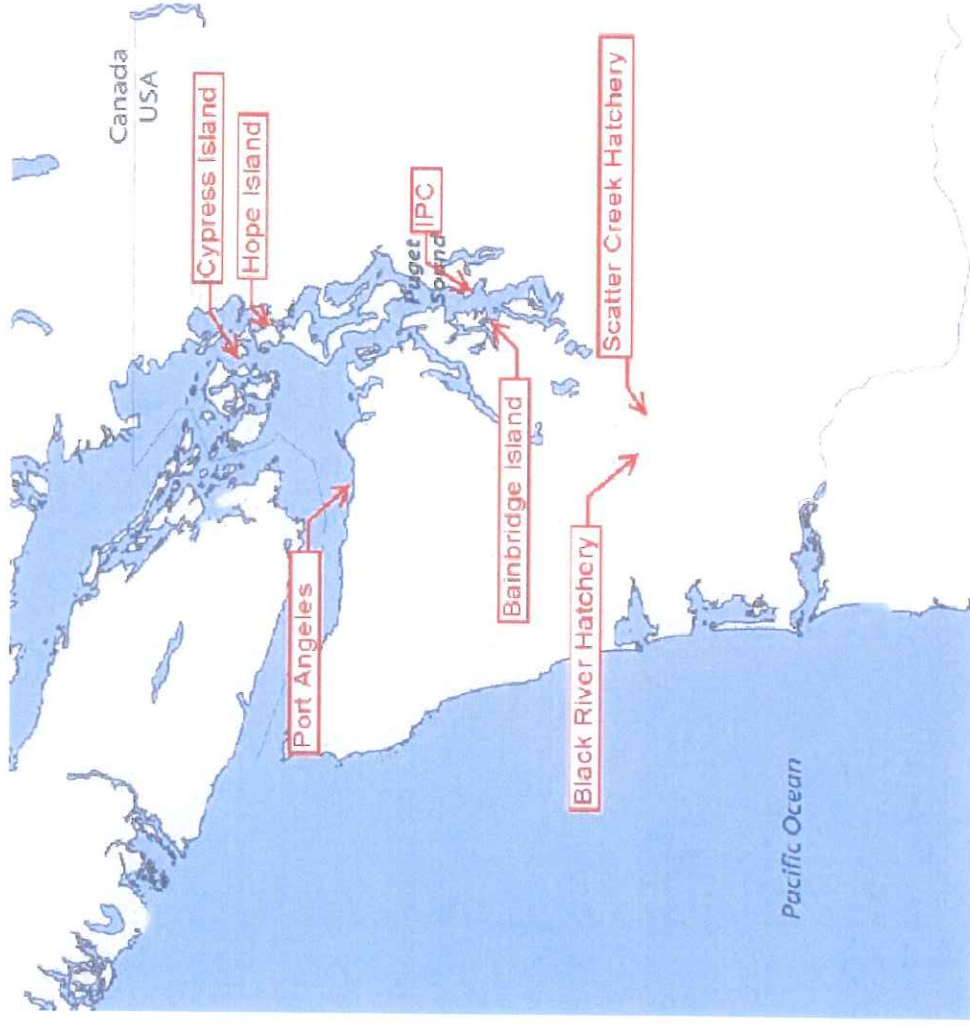
Atlantic salmon have been farmed safely and successfully in Puget Sound for more than 30 years

Icicle operates farms at Bainbridge Island, Cypress Island, Port Angeles and Hope Island

We harvest year-round and ship to customers in Seattle, San Francisco and Los Angeles

We employ 45 people at our net pens and 16 at our hatchery. Our fish-processing contractor employs another ~50 people

These jobs are permanent, full-time, year-round



# Room to grow in Puget Sound

The total area of Puget Sound and the 50 percent of the Strait of Juan de Fuca with U.S. waters is ~1.16 million acres

Our seawater lease holdings total 184 acres - less than a third of a square mile, .02% of the available surface area

Of that leased acreage, we use 21 acres for net pens

All U.S. imports of farmed salmon from Chile could be replaced with 340 additional acres of net pens



# Economic impacts of salmon farming

Flying a quarter-billion pounds of imported fish from Chile to the U.S. costs nearly \$89 million each year

We harvest more 2 million pounds from 3.7 acres of Port Angeles pens per year

Annual payroll is \$461,000 - \$57,000/year/person

Regional goods and services - \$740,000/year

Processing & packaging - \$1.7 million/year



Expanding US production to replace Chilean imports would add ~\$42 million in payroll, ~\$68 million for goods and services and ~\$160 million in processing – a huge potential benefit to our State economy

# Siting and permitting new farms

Siting and permitting a new salmon farm is a complex and time-consuming process

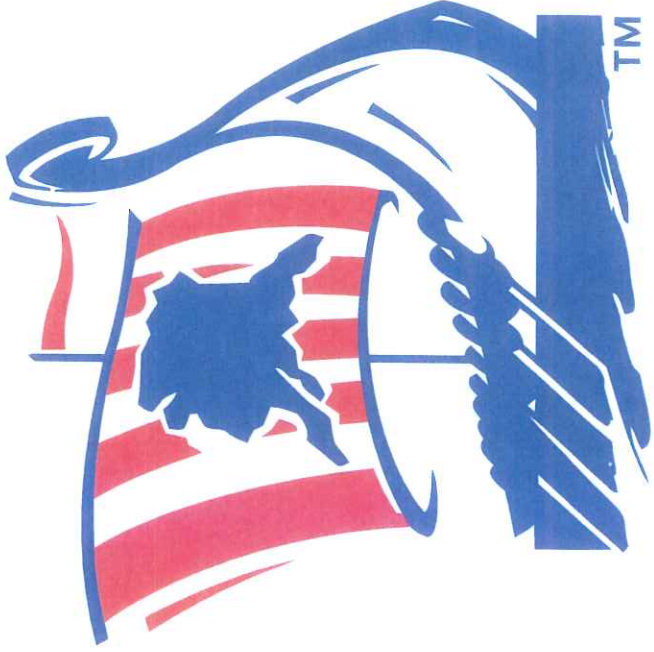
We are a truly water dependent use – our salmon and the jobs they create rely on access to productive marine sites

We need the approval of local, state and federal agencies, including the Washington Departments of Ecology and Fish and Wildlife, the U.S. Department of Fish and Wildlife, the Army Corps of Engineers and the Environmental Protection Agency.

In general, the state and federal government have favorable policies toward aquaculture.

Key barriers to permitting new farms are efforts by foreshore owners to prevent development, well-funded NGOs and uncertainty at the local level in terms of understanding the risks, impacts and benefits of net pen aquaculture

We need a comprehensive, coordinated approach to permitting and regulating aquaculture – one that is capable of weighing the risks and benefits of net pen aquaculture and making sound permitting decisions in a timely manner



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