

4th Annual Heceta Head Coastal Conference

"Oregon's Ocean: Changes & Consequences"

Florence Events Center ~ October 24-25, 2008

SUMMARY of CONFERENCE PROCEEDINGS

Panel III. "The Consequences of the Salmon Closure"

Nancy Fitzpatrick, Administrator, Oregon Salmon Commission

The Effect on Fishermen. As independent business owners, salmon fishermen are impacted by season closures. State and federal managers establish seasons and quotas annually with typical Oregon seasons from March through October.

2008 is not the first year with closures. Extremely low Klamath Fall Chinook abundance was the primary stock impacting the curtailed seasons for 2005 and 2006. Typical landings of 3-4 million pounds (value \$7-10 million) was reduced to around .5 million (\$2.75 million).

This fishery income pays the regular household expenses, as well as associated boat expenses (boat payments, moorage, dock electricity, gear, repairs, equipment, boat upkeep, fuel, required safety equipment). Without fishing, fishermen are not buying gear, safety equipment, or performing annual maintenance. Therefore the related fisheries businesses are seeing fewer customers thus affecting the entire coastal communities.

Governor Kulongoski declared an emergency in 2006 and 2008, and approved direct financial assistance to the fleet. The Oregon Watershed Enhancement Board funded work opportunities for displaced fishermen for salmon habitat restoration projects and Project CROOS paid fishermen to collect scale samples and fin clips to determine genetic stock identification.

The Department of Community Colleges and Workforce Development and the Department of Human Services funded the Port Outreach Specialist Project to contract with six Outreach workers who worked with fishermen, their families, crew members and fishing communities impacted by the disasters connecting them to local and state services.

Accordingly, Oregon fishermen received federal disaster assistance that allowed them to pay their family and boat-related expenses.

Glen H. Spain, N.W. Regional Director, Pacific Coast Federation of Fishermen's Association

The Effect on Fishermen. The widespread salmon fisheries closures of 2008 (and likely 2009) are the inevitable result of the fact that 80% or more of Oregon ocean-harvested salmon come from outside Oregon, with most coming from the California Central Valley where in 2008 these salmon runs completely collapsed.

Oregon's salmon dependency is exacerbated because Oregon has not taken good care of its own native coastal river stocks, most of which are also seriously depressed and many of which are now ESA-listed to prevent their extinction.

Oregon is the ocean cross-roads of many salmon runs. Because weakened stocks from elsewhere intermingle

with Oregon-origin stocks as sea, "weak stock management" requirements will close down Oregon's ocean salmon fisheries whenever any salmon run in any one of these out-of-state river systems collapses. Thus Oregon has an abiding economic interest in helping to restore salmon runs in all three states, not just in Oregon. Salmon problems in other states do not stop at state boundaries -- they are Oregon's problems as well.

The Impacts on Oregon's salmon-dependent coastal communities from these periodic salmon closures include:

- (1) reducing the productive capacity of the whole salmon industry;
- (2) collapsing local port infrastructure and loss of markets to farmed salmon, which can negatively effect the industry for many years;
- (3) driving fishing jobs and families out of fishing communities permanently;
- (4) exacerbating the aging of the fleet as fewer young fishermen are recruited; and most importantly,
- (5) eliminating the most vocal and most politically effective advocates for salmon restoration -- fishing families and their communities.

Hans T. Radke, Natural Resource Economist

The Effect on the Economy. Since the year 2000, Oregon has had about 600 active salmon troll permits issued out of a total of 1,200. Salmon commercial troll fishing has generated less than \$10 million annually in total personal income to coastal Oregon communities. The economic impact of state and federal payments in 2007 and 2008 is estimated to generate about \$35 - \$50 million in each of these years.

The ocean salmon fishery is generally a mixed stock fishery. There will always be a salmon species or stock listed as threatened or endangered, which will lead to continued closures unless a better system of stock identification and harvest management is developed.

By way of summary, regulators of the salmon fishery are issuing too many permits. Disaster payments generated about four times as much income as harvests. Furthermore, the future of ocean salmon trolling is not very good unless changes in identification of stocks and in-time management practices are adopted.

Lecture: "Extreme Storms, El Ninos, and the Sea Level Rise Due to Changing Climate"

Dr. Jonathan Allan, Coastal Geomorphologist, Oregon Department of Geology & Mineral Industries

The Oregon coast is characterized by about 300 miles of shoreline. The bulk of the shore (~72%) is comprised of sandy beaches (both dune-backed and bluff-backed) that are bounded by resistant headlands. The headlands form pocket beach littoral cells, whereby sand is moved about within the cells with little to no exchange occurring between adjacent cells.

Since the beaches of Oregon are characterized by limited sediment sources, they are particularly susceptible to the effects of major storms that develop and track across the North Pacific. These storms are in response to climate events such as El Niño's, and in the long-term to the effects of climate change and sea level rise.

With the development of the Oregon coast having begun in earnest in the 1960s, developers have been allowed to locate expensive properties and infrastructure atop high dunes overlooking the ocean, along the edge of coastal bluffs and on sandy spits. In many cases the development of the Oregon coast has occurred without a sound knowledge of the processes that drive coastal change. Many of these homes are now located in hazardous situations requiring expensive engineering to safeguard them.

There are many factors that influence the stability and instability of Pacific Northwest beaches. The most important of these include high ocean waves, increases in mean sea level due to El Niño climate effects,

storm surges, and "hotspot erosion" due to oblique wave approach that removes large amounts of sand from the southern ends of the littoral cells. Of these, it is the combination of large ocean waves, coupled with high water levels, that contribute to the most significant erosion problems. The result is as much as 15 to 45 m. (45 – 150 ft) of dune retreat during a single storm or from storms-in-series.

Such responses are likely to be compounded in the future with the recent discovery that North Pacific waves have increased in height since the 1970s, while storm frequency has been increasing since at least the 1940s. Factoring in a sea level rise of 0.2 to 0.8 m (0.7 to 2.6 ft) by year 2100, the expectation is for even more coastal erosion and inundation that will severely challenge coastal communities and society in the future.