

The Hubbs-SeaWorld Aquaculture Project: A Raw Deal

Fact Sheet • April 2009

Background

The Hubbs-SeaWorld Research Institute — a non-profit research institute associated with the for-profit SeaWorld — is currently planning to develop the first commercial open ocean aquaculture project in federal waters, five miles off the coast of San Diego, California. Building on its fish farming enterprise in Baja California, Mexico, Hubbs-SeaWorld is proposing to grow 1,000 metric tons of striped sea bass to start, with the goal to produce 3,000 metric tons of fish annually by the fifth year of operation. This is more than three times the size of the only other existing commercial offshore aquaculture facility in the United States. Although this is pitched as a pilot research project, representatives of Hubbs-SeaWorld have explicitly boasted that the facility will ultimately be transferred to a for-profit business entity.¹ Hubbs-SeaWorld and the for-profit corporation would share revenue from the project.² From 1998 to 2007, Hubbs-SeaWorld Research Institute received more than \$700,000 from the Department of Commerce for open ocean aquaculture research.³ Now, after receiving public dollars to fund its preliminary work, Hubbs-SeaWorld plans to make money off of our public fish resources.

A number of state and federal agencies are reviewing the project to determine whether it should move forward. Right now there is simply not enough public information available for this to be approved. It is well documented that open water fish farms elsewhere have caused problems for the marine environment and economy of coastal communities.

Major Problems with the Hubbs-SeaWorld Project

Environmental Impacts

Numerous questions exist about the environmental impacts of the Hubbs-SeaWorld Project including:

Feed: The project proposal lacks specifics as to the source and quality of feed. About two to six pounds of wild fish are required to produce just one pound of some types of farmed fish.⁴ A recent article in the *San Francisco Chronicle* points out that the depletion of small prey species — in part caused by the demand for their use in aquaculture feed — is unsustainable and has serious consequences for the entire marine food chain.⁵ Hubbs-SeaWorld has not committed to using alternative feeds or limiting the amount of fishmeal and oil used in feed so as not to increase pressure on already stressed wild fish populations.

Escapes/Predation: Though promising a comprehensive “loss-control” plan in the future, Hubbs-SeaWorld has not detailed any concrete measures it will take to minimize or eliminate escapes of farmed fish into the



wild — which can harm the genetic fitness and diversity of wild fish.⁶ The project has not indicated it will monitor and report escaped fish. Nor does the project indicate that it will tag or track fish so that some of the risks posed by escaped fish can be traced.

There is also insufficient proof that the project will be able to deter predators and other wildlife from interactions with the cages. It is possible that sharks, whales, seals and other predators attracted by captive fish would become caught in the cages or their related gear.

Pollution: Research demonstrates that the effluent from fish farms can have negative impacts upon ocean ecology.⁷ Hubbs-SeaWorld recognizes that there could be a local negative impact on the seafloor environment due to excess fish feed and waste from the facility. Hubbs-

SeaWorld says it will monitor its pollution but has not thoroughly addressed how and at what point it will take action if pollution issues arise.

Social impacts

Hubbs-SeaWorld asserts that this project will generate employment, however, this project may actually lead to job loss, fewer recreational opportunities and a reduction of the tourism industry:

Diminished Recreational Opportunities: With concentrated fish waste, excess feed and any chemicals used in the farm flowing straight into ocean waters and an increased incidence of predators attracted to the cages, the surfing, boating and recreational fishing experiences in these waters could be compromised. The project proposal fails to analyze these impacts.

Rising Unemployment: The project plans on raising species of fish other than striped sea bass, including white sea bass and California halibut. The massive quantity of these fish that could be farmed under this project would likely flood the market — causing the current price to plummet. As a result, commercial fishermen could see their livelihoods washed away. A similar situation occurred in Alaska in the late 1990s when very rapid growth in farmed salmon production outstripped the growth in demand, glutted farmed salmon markets and severely depressed prices for farmed (and wild) salmon.⁸ When the number of fishermen dwindles, support businesses, like marine supply stores and dock facilities, also suffer, creating the potential for more job losses and worsening the economies of coastal communities. In the current economic climate, such impacts would be devastating.

Establishing a Dangerous Legal Precedent

The proposed project will be the first commercial fish farm located in federal waters, where no federal regulations exist to ensure the project will not harm the marine environment and local fishing communities.

Hubbs-SeaWorld has chosen to site the project just out of reach of California's law dealing with the problems posed by marine aquaculture facilities. Not only is this bad for Californians, it sets a dangerous precedent for nationwide expansion of industrialized fish farms in federal waters.

What You Can Do

There are multiple steps you can take to help stop development of open ocean aquaculture (OOA) in our waters:

Today: Visit Food & Water Watch's Web site to learn more about OOA and how communities have opposed this environmentally and socially destructive enterprise.

Tomorrow: Write a letter to the editor opposing OOA and the Hubbs-SeaWorld project, speak with your friends and family about the project and your vision for the public's oceans, and educate yourself about clean, green, safe



seafood options by downloading our seafood purchasing guide or recipe book.

The Future: Contact Sam at sschabacker@fwwatch.org to find out how you can get involved with local groups of citizens who are working to stop the Hubbs-SeaWorld project.

Endnotes

- 1 Kent, Donald. "Development of Marine Aquaculture. A National Imperative — A San Diego Opportunity." Presentation on Hubbs-SeaWorld Research Institute Aquaculture Project at Surfrider Member Meeting, La Jolla, CA. March 18, 2009.
- 2 Lee, Mike. "Institute proposing fish farm in federal waters; Project off San Diego still must clear hurdles." San Diego Union-Tribune. February 2, 2009.
- 3 "Recipients of the 2006 NOAA National Marine Aquaculture Initiative Grants." National Oceanic and Atmospheric Administration. September 2006; "The Saltonstall-Kennedy Grant Program: Fisheries Research and Development. Report 1998." Financial Services Division, National Oceanic and Atmospheric Administration. Aug. 1, 1998.
- 4 "Sustainable Marine Aquaculture: Fulfilling the Promise; Managing the Risks." Report of the Marine Aquaculture Task Force, Takoma Park, MD, Jan 2007, p. 93.
- 5 Kay, Jane. "Overfishing imperils ocean life, study says." San Francisco Chronicle. March 3, 2009.
- 6 McGinnity, P et al. 2003. Fitness reduction and potential extinction of wild populations of Atlantic salmon, *Salmo salar*, as a result of interactions with escaped farm salmon. *Proc Biol Sci.* 270 (1532), 2443-50.
- 7 Lee, Han W., et al. "Temporal changes in the polychaete infaunal community surrounding a Hawaiian mariculture operation." *Marine Ecology Progress Series*, 307:175-185, January 2006; Holmer, M. et al. "Sedimentation of organic matter from fish farms in oligotrophic Mediterranean assessed through bulk and stable isotope ($\delta^{13}\text{C}$ and $\delta^{15}\text{N}$) analyses." *Aquaculture*, 262: 268-280, 2007.
- 8 Knapp, Gunnar. "Challenges and Strategies for the Alaska Salmon Industry." Institute of Social and Economic Research, University of Alaska Anchorage. April 2002.

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