

Rigs to Riches

Before Congress could evaluate the 2007 Offshore Aquaculture Bill, the U.S. Department of the Interior published a document suggesting that it intends to issue permits for offshore aquaculture operations on or near oil platforms, potentially circumventing the legislative process.

What is Offshore Aquaculture?

Offshore aquaculture is a method of intensive fish farming, which, if allowed, would occur in U.S. federal waters 3 to 200 miles from shore. In these “farms,” high-value fish such as cobia, halibut, and cod are grown in densely populated, submerged cages.

Two commercial offshore fish farms operate off the coast of Hawaii. In addition, the U.S. Department of Commerce and others fund experimental fish farms off the coasts of New Hampshire, Puerto Rico, and Texas.

Rigs-to-Reefs

Traditionally, when oil companies with rigs in federal waters complete drilling, they must remove their platforms within one year. However, some states have “rigs-to-reefs” programs that allow oil companies to leave the submerged component in the ocean to serve as an “artificial reef.” Rigs-to-reef programs are active in Texas, Florida, Mississippi, Alabama, and Louisiana.

Seeking to capitalize on potential savings, oil companies have eagerly participated in rigs-to-reefs programs. Ac-



Problems with Offshore Aquaculture

- **Depletes Wild Fish Populations:** Two to six pounds of wild fish, ground up into feed, are required to produce one pound of farmed fish. With more than 75 percent of the ocean fisheries fished to capacity or over-fished,¹ open ocean fish farming would only increase pressure on wild fish.
- **Chemical Use:** Aquaculture operations have used hormones, and they are legally allowed to use anti-fungals, pesticides, and toxic paint. All of these substances could threaten human health and the environment.
- **Contaminated Feed:** Fish feed contains ingredients that are contaminated with pesticides, such as PCBs, and heavy metals, such as mercury.
- **Fish Escape:** Cages can become damaged from predator attacks and severe weather, allowing farmed fish to escape. This threatens wild fish populations due to competition for resources and genetic mixing. In the late 1990s, storms destroyed an offshore aquaculture test cage that was adjacent to an energy platform in the Gulf of Mexico.
- **Pollution:** Uneaten fish feed, waste, and chemicals contaminate surrounding water and the ocean floor with organic matter and heavy metals.

According to Chevron representative Ayana McIntosh-Lee, it can cost up to \$5 million to remove platforms from federal waters², while, according to Granvil Treece, an aquaculture specialist at Texas Sea Grant, it costs only \$800,000 to convert the platform into an “artificial reef.”³

Additionally, when oil companies convert their platforms into artificial reefs, the company absolves itself of responsibility for future damage or liability.⁴

Oil and Fish Farms Do Not Mix

A 1996 study in the Gulf of Mexico by the U.S. Department of Interior's Minerals Management Service revealed that shrimp and fish caught near oil rigs in the region contained significantly higher mercury levels than those in less contaminated areas.⁵

However, other studies speak of the benefits of oil rigs to the surrounding environment. Murphy Oil Corp, for example, makes claims about the "positive impact platforms have had on the species diversity and fish populations in the Gulf."⁶

Oil Money Research

Unfortunately, much of the research that supports attaching fish farms to oil rigs has been funded by oil companies. For example, the California Artificial Reef Enhancement Program, a nonprofit research organization, is funded by the oil industry.⁷ Additionally, CARE's Executive Director, George Steinbach, is a retired Chevron engineer.⁸ CARE "promotes awareness and understanding of the potential value" of leaving oil platforms in the ocean, but has yet to publish research on pollutant levels in fish living near rigs.^{9,10}

Chevron is one of the leading contributors to Hubbs-Sea World Research Institute, and has specifically funded Hubbs research on rockfish aquaculture.¹¹ Over the past five years, Chevron has donated at least \$1 million per year to the program.^{12,13,14,15} Chevron is also a collaborator in the Sea Grant Gulf of Mexico Offshore Aquaculture Consortium, a federally funded group that conducts research in support of OOA.¹⁶

Conclusion

Although the oil industry may benefit from offshore aquaculture on and near oil and gas platforms, open ocean aquaculture poses significant environmental and consumer risks that cannot be overlooked. Therefore, the U.S. Department of the Interior should prohibit aquaculture companies from setting up farms on or near energy platforms.

Endnotes

- ¹ Tacon, Albert et al. "Use of Fishery Resources as Feed Inputs to Aquaculture Development: Trends and Policy Implications." FAO Fisheries Circular No. 1018, Food and Agriculture Organization of the United Nations, Rome, 2006.
- ² Langenhennig, Susan. "Gulf Sanctuary." *The Times Picayune*, June 29, 2003.
- ³ "Fish Farms Questioned," *The Daily Advertiser*, Apr. 5, 2005.
- ⁴ Dauterive, Les. "Rigs-to-Reefs Policy, Progress and Perspective." OCS Report MMS 2000-073, US Department of the Interior, Minerals Management Service, New Orleans, October 2000. p. 2.
- ⁵ Kennicutt, M. C., Green, R. H., Montagna, P., and Roscigno, P. F., 1996. "Gulf of Mexico Offshore Operations Monitoring Experiment (GOOMEX), Phase I: Sublethal responses to contaminant exposure – introduction and overview." *Canadian Journal of Fisheries, Aquatic Sciences*. 53: 2540-2553, cited in Raines, Ben. "Mercury contamination at some rigs on par with Superfund sites." *Mobile Register*, Apr. 14, 2002.
- ⁶ "Progress through excellence: Murphy Oil and the Environment." Murphy Oil Corporation, 2005.
- ⁷ Rice, Jenny Lee. "Fate of Rig's Reef Float to Surface." *The Grunion Gazette*, Nov. 27, 2003.
- ⁸ Rice, Jenny Lee. "Fate of Rig's Reef Float to Surface." *The Grunion Gazette*, Nov. 27, 2003.
- ⁹ "About CARE." California Artificial Reef Enhancement Program, 2007. Available at: www.calreefs.org/about/index.php?page=aboutmain
- ¹⁰ "New Research Topics." California Artificial Reef Enhancement Program, 2007. Available at: www.calreefs.org/research/index.php?page=newresearch
- ¹¹ "Research Area: Rebuilding Rockfish Populations." Hubbs SeaWorld Research Institute, 2007. Available at: www.hswri.org/research/researchProgram.cfm?realD=19
- ¹² "Contributing to a Better Future." In *Depth Solutions through Science*, Annual Report 2005-2006, Hubbs SeaWorld Research Institute, 2006. Available at: www.hswri.org/media/news.cfm
- ¹³ "Contributing to a Better Future." Annual Report 2005, Hubbs SeaWorld Research Institute, 2005. Available at: www.hswri.org/media/news.cfm
- ¹⁴ "Contributing to a Better Future," Annual Report 2003-2004, Hubbs SeaWorld Research Institute, 2004. Available at: www.hswri.org/media/news.cfm
- ¹⁵ "Contributors," Annual Report 2002, Hubbs SeaWorld Research Institute, 2002.
- ¹⁶ "Scientific Collaborators." Offshore Aquaculture Consortium, 2005. Available at: www.masgc.org/oac/collaborators.htm

For more information:

web: www.foodandwaterwatch.org
email: foodandwater@fwwatch.org
phone: (202) 797-6550

Copyright © October 2007 Food & Water Watch