RED ALERT

EPA considering permit to allow **environmentally-dangerous fish farm off** of Sarasota County's red-tide plagued shores.

Introduction

The EPA is considering a permit for an experimental commercial fish farm 45 miles west of the Sarasota county coastline. Marine-based industrial fish farming has not previously been allowed off of the waters of the U.S. mainland because of the known adverse ecological impacts of the practice. Indeed, open water fish farming has been banned by several countries that previously permitted it because of its deleterious environmental impacts.

It is difficult to understand why the federal government would even begin to entertain the idea of allowing this practice off the continental United States, let alone in a body of water that has experienced increasing frequency and duration of ruinous "Harmful Algae Blooms" (HAB). **Catastrophic economic and environmental harm has already resulted from recent red tide blooms**, and it would be sheer folly to feed the algae more of the nitrogen it needs to exact its deadly toll. Yet, that is precisely what this proposed fish farm would do.

Nitrogen + Phosphorous = Red Tide

- Scientific evidence is mounting that nutrients are a contributory factor to the increasing global occurrence of toxic algal blooms[1]. Nutrient pollution is one of America's most widespread, costly and challenging environmental problems... too much nitrogen and phosphorus in the water causes algae to grow faster than ecosystems can handle[2].

- Research from Dr. Larry Brand[3] shows that when the Gulf-coast's naturally-rich phosphorus holdings join with the human-influenced nitrogen runoff from Lake Okeechobee via the Caloosahatchee River, conditions are ripe for a major HAB[4].

- Nutrient addition to the Gulf (in this case, by concentrating 20,000 eating and growing penned fish in one location) is of concern because it would add more nitrogen to the water, thus contributing to harmful algal blooms (HABs)[5]

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[1] Scotland's Secret? Aquaculture, nutrient pollution, Sept 2000 Dr. Malcolm MacGarvin (https://www.wwf.org.uk/sites/default/files/2000-01/secret.pdf), page 2.
[2] https://www.epa.gov/nutrientpollution/issue

[3] Dr. Larry E. Brand, professor of marine biology of Miami Rosentiel School of Marine and Atmospheric Science.

[4] "Scientist Refutes Red Tide Dogma", The Bradenton Times (https://thebradentontimes.com/scientist-refutes-red-tide-dogma-p20669-158.htm).

[5] EPA Environmental Assessment for Velella Epsilon (VE) Offshore Aquaculture Project, page 16.

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About Proposed Experimental Fishery

- The Velella Epsilon project is a "net-pen" aquatic animal production facility that … will culture a single cohort of approximately 20,000 fish which will be reared for approximately 12 months.[6]

- Once the Velella Epsilon has demonstrated the technology and benefits of offshore aquaculture to the local communities, then [Kampachi Farms] will engage them in the discussions about how this industry might move forward. [7]

- Production farms are 10x larger than the planned Velella Epsilon experiment: 200,000 fish and over.[8]

- The proposed facility would be the first aquaculture facility to operate and discharge in federal waters of the eastern Gulf and, thus, the significance of any impacts to the environment from such a facility is not known.[9]

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[6] Draft Fact Sheet for NPDES Permit FL0A00001, page 1

[7] http://www.kampachifarm.com/blog/2017/11/2/velella-epsilon-pioneering-offshore-aquaculture-in-the-gulf-of-mexico

[8] "Scottish Salmon Farm Facts", https://www.bbc.com/news/uk-scotland-48266480 , (9.5 million fish died which was approximately 20% of all fish farmed in 226 sites for an average production farm size of approx. 210,000 fish). Also pg. 10, "Dangers of Industrial Ocean Fish Farming" (https://foe.org/reso…/dangers-industrial-ocean-fish-farming/) which used 200,000 as standard size for production farm.

[9] EPA Environmental Assessment for Velella Epsilon (VE) Offshore Aquaculture Project, page 7.

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Chemical Discharge from Offshore Fishery

- Studies show that an industrial ocean fish farm operation of 20,000 fish would release fecal matter (aka: untreated sewage) equivalent of 6,300 people.[10]

- Despite the foreseeable discharges and pollution discussed above, [the] EPA fails to analyze the discharge of significant pollutants from the facility under the Ocean Discharge Criteria required for NPDES aquaculture permits, in violation of NEPA and the CWA.[11]

- **[The] EPA acknowledges that nitrogen discharge is a concern and that it could lead to a red-tide bloom** "The primary nutrients of interest in relation to open ocean aquaculture are nitrogen and phosphorus; both may cause excess growth of phytoplankton and lead to aesthetic and water quality problems."[12]

- The EPA [further] acknowledged that industrial ocean fish farms contributes to eutrophication of waterways, and that many states with fish farms have reported impairment to their waterways and low water quality due to excess nutrient overloading.[13]

- While the EPA suggests that contaminants would not be detectable beyond 30 meters from the net under normal currents, the report does not address the impact of tropical storms and hurricanes on currents[14].

- No EPA analysis was done regarding our unique phosphorous rich/algae sensitive ecosystem.[15]

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[10] "Dangers of Industrial Ocean Fish Farming" (https://foe.org/reso…/dangers-industrial-ocean-fish-farming/). Study was for farm size of 200,000 which had equivalent of 63,000 people., pg. 10

[11] Comments on Proposed Issuance of NPDES Permit to Kampachi Farms by Suncoast Waterkeeper, (https://drive.google.com/file/d/1iRgw_h-2-3AlOpwstlAU4X9e4IblaeEu/view?fbclid=IwAR0bhXr2uEbefdganE7zNF5XKmFdeXBCKtjMljKHvJe23sY2d27SV4qnET0), pg. 9

[12] EPA Environmental Assessment for Velella Epsilon (VE) Offshore Aquaculture Project, page 16.

[13] Dangers of Industrial Ocean Fish Farming" (https://foe.org/reso…/dangers-industrial-ocean-fish-farming/). Study was for farm size of 200,000 which had equivalent of 63,000 people., pg. 10

[14] EPA Environmental Assessment for Velella Epsilon (VE) Offshore Aquaculture Project, page 32.

[15] EPA Environmental Assessment for Velella Epsilon (VE) Offshore Aquaculture Project, no analysis within assessment.

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International Experience with Offshore Fisheries and Algae Blooms

- In the Scottish Highlands, evidence has accumulated, especially in the last few years, that increases in nutrients [from the offshore fisheries], and the distortion of nutrient ratios, result in an increased risk from toxic blooms, both in their frequency of occurrence and their geographic extent.[16]

- Denmark halts offshore commercial fisheries - The Danish Government has announced that it is to put a halt to the development of fish farming at sea in a bid to protect the environment. The move will see an end to the development of any new sea fish farms in the country as well as a curb in growth for existing farms. Levels of pollution associated with aquaculture have been the cause of significant criticism in the past. The resulting concentration of waste from the sector and its impact on the marine environment has been widely questioned.[17]

- China suffered its largest recorded algal event in July [2013], when a bloom of algae swelled to cover almost 30,000-square kilometers ... Tourism, fishing industries, property markets, local economies were all affected… eutrophication [excess nutrients] and increased utilization of coastal waters for aquaculture are likely to be a major driving force for algal blooms.[18]

- Because the improved awareness and identification of HAB ["Harmful Algae Blooms"] events [having] occurred alongside growth in aquaculture, a plausible hypothesis is that these developments have increased the frequency and intensity of HABs. [19]

Learn more at: https://www.facebook.com/Experimental-Fishery-Florida-Red-Tide-107017987485109

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[16] Scotland's Secret? Aquaculture, nutrient pollution, Sept 2000 Dr. Malcolm MacGarvin (https://www.wwf.org.uk/sites/default/files/2000-01/secret.pdf), page 2.

[17] https://www.european-views.com/2019/08/denmark-to-halt-development-of-sea-fish-farming-sector/

[18] https://www.chinadialogue.net/article/show/single/en/7271-Algal-blooms-fed-by-climate-change-farm-pollution-and-aquaculture

[19] http://www.globalhab.info/science/globalhab-new-topic/habs-and-aquaculture