

County of Humboldt  
Planning Commission  
825 Fifth Street  
Board of Supervisors Chambers  
Eureka, California

Re: Planning Commission Hearing | Thursday, July 28, 2022 | Agenda item G.1.:  
Nordic Aquafarms California, LLC; Coastal Development Permit and Special Permit  
Record Number PLN-2020-16698 (filed 10-05-20)  
Assessor's Parcel Number (APN): 401-112-021  
Samoa area

Position: Support

I am writing on behalf of the California Aquaculture Association (CAA)<sup>i</sup>, a producer-supported association representing finfish, shellfish, and algae growers and seafood related businesses throughout California.

CAA would like to express its support for Nordic Aquafarms' Coastal Development Permit and Special Permit for their Samoa Peninsula Land-based Aquaculture Project (the Project).

The Food and Agriculture Organization's State of the World Fisheries report estimates that 93% of wild fish stocks worldwide are fished at maximum sustainable levels<sup>ii</sup>. Wild fisheries are managed well in California, but there are only so many fish that the ocean can sustainably produce. And with the world population projected to increase from the current 7.7 billion (2019) to 9.7 billion by 2050<sup>iii</sup>, the demand for consumable proteins, including finfish, will only increase in the decades to come. Aquaculture is needed to supplement this demand.

Additionally, the COVID-19 pandemic has made it clear the need to increase food security in the United States. The U.S. imports 80% to 90% of its seafood<sup>iv</sup>, approximately 50% of which is produced by way of aquaculture<sup>v</sup>. Consumers in this country are eating farmed fish already, it's just not coming from our own farmers. We need to be producing more seafood domestically, and Nordic Aquafarms' Project will do just that.

Also, aquaculture is the most efficient and sustainable method of protein production; far superior to chicken, pork, or cattle.<sup>vi</sup> The feed conversion ratio for finfish aquaculture is very low, averaging approximately 1.15:1 (approximately 1.15 lbs of feed used to produce 1 lb of flesh).<sup>vii</sup> Additionally, the use of wild fish protein and oil in aquaculture feed has been decreasing because of an increased use of plant-based feed substitutes. The "fish in, fish out" (FiFo) ratio, the amount of wild fish needed in feed to produce a pound of farmed fish, when averaged across species, is equal to or less than 0.5:1 (approximately 0.5 lbs of wild fish used to produce 1 lb of farmed fish) for current worldwide aquaculture production.<sup>viii</sup>

Biosecurity is a top concern and priority of all who share our natural resources, and Nordic Aquafarms' Project addresses these concerns directly. As outlined in the Project's Escape Prevention, Containment Management, and Contingency Plan<sup>ix</sup>, Nordic Aquafarms will employ a Closed Containment Systems (CCS), which significantly minimizes the possibility of fish escapement by system design. CAA agrees that Nordic Aquafarms has, as stated in their Project proposal, 'gone beyond most standards that require risk-based engineering, design, dimensioning, and construction to virtually arrive at an escape-proof facility and farm site'.

The continued development of our state's aquaculture industry will be vital to meet the growing demand for seafood in California and throughout the United States. Nordic Aquafarms' Project will create jobs and provide economic opportunities that are currently being lost to other states and countries.

Nordic Aquafarms is furthering the much-needed development of large-scale finfish production and, as such, CAA fully supports their Project.

If you have any questions or would like to speak more about this, please contact me at [info@caaquaculture.org](mailto:info@caaquaculture.org) or 916-246-6349.

Thank you,



Michael Lee, Executive Director

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<sup>i</sup> The California Aquaculture Association (CAA) is a producer-supported association representing finfish, shellfish, and algae growers and seafood related businesses throughout California since 1983. The CAA promotes commercial production of plants and animals in aquatic systems to satisfy the needs of consumers for wholesome products that are produced by sustainable means conserving California's land and water resources.

<sup>ii</sup> FAO, State of World Fisheries, p. 40.

<sup>iii</sup> United Nations, Department of Economic and Social Affairs, World Population Prospects 2019, p.1.

<sup>iv</sup> NMFS, Office of Science and Technology, Fisheries of the United States, 2017 Report, Current Fishery Statistics No. 2017, September 2018, p. 114.

<sup>v</sup> Hauke L. Kite-Powell, Michael C. Rubino, and Bruce Morehead, "The Future of U.S. Seafood Supply," *Aquaculture Economics & Management*, vol. 17, no. 3 (August 2013), p. 229.

<sup>vi</sup> Global Aquaculture Alliance, *Why It Matters*, <http://aquaculturealliance.org/what-we-do/why-it-matters/>

<sup>vii</sup> Trine Ytrestoyl, Turid Synnove Aas, and Torbjorn Asgard, "Utilization of Feed Resources in Production of Atlantic Salmon," *Aquaculture*, vol. 448 (2015), pp. 365-374.

<sup>viii</sup> NOAA Fisheries, Office of Aquaculture, *Feeds for Aquaculture*.

<sup>ix</sup> Page 40, <https://humboldt.gov.org/DocumentCenter/View/102296/20-Project-Description-PDF>