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DLNR Land Division  
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Dear Ms. Hegger,

I had hoped to be able to speak at the public hearing in Kona on May 27. Unfortunately I will be out of town at that time. I am therefore submitting this written testimony.

I'm writing in support of the application of Kona Blue Water Farms to establish an open ocean fish farm on the Kona coast near Keahole airport. I have two major reasons for wishing for the success of their endeavor: I believe that the long-term health of the ocean environment, both here in Hawaii and world-wide, is critically dependent on the development of open ocean aquaculture; and I believe that Hawaii is uniquely positioned to profit greatly from this inevitable development. I will say more about these points, but first I want to say that I have followed with interest for several years the public discussions surrounding this proposal. I have noted various environmental concerns, and I have been impressed by the thoroughness with which these concerns have been addressed in the Environmental Assessment report which I've downloaded from the Kona Blue Water Farms web site.

Let me discuss now the health of the world's oceans, or perhaps I should say, the declining health, and the role aquaculture must play in reversing the decline. I'm a lifelong sport fisherman so I have a particular interest in this, but anyone who has been reading the news over the past half-century must be dismayed as, one after another, so many of the world's most productive fisheries have collapsed utterly. The Grand Banks cod fishery, arguably the world's most productive fishing ground for at least half a millennium, has, since World War II, been fished to virtual extinction, and the great New England fishing fleets are no more. A similar fate is overtaking fishermen along western North America, with the exception of Alaska. Hawaii has seen dramatic drops in the productivity of bottom fishing, and I have recently seen an estimate that worldwide, pelagic fishes are being taken at two and half time sustainable rates.

The world's human population continues to grow at the same time fish stocks everywhere plummet. The demand for protein from the ocean will only increase, and already wild fish stocks cannot meet the demand. The pressure on these stocks threatens to destroy not only the fish species themselves, but the ecologies which surround them, for which the Grand Banks example can be taken as an object lesson.

But I believe that fifty years from now there will still be a wild ocean. This will come to pass not because fishermen have seen the light, but because open ocean aquaculture will have replaced fishing as the primary source of ocean protein. This, it appears to me, is an economic certainty, an inevitable consequence of increasing demand and the impossibility of finding adequate wild supplies at a reasonable cost. As aquaculture expands, demand for wild fish will decline. Eventually an economic balance will be struck between fishing and aquaculture; fishing will only make sense when wild fish are present in sufficient numbers that they can be caught nearly as cheaply as their tame brothers can be farmed.

The world is on the cusp of an era of explosive growth in aquaculture. The economic opportunity offered to Hawaii by this fact is almost too obvious to need description. Hawaii is uniquely positioned to serve both Asia, where the demand for fish is traditional and enormous, and the North American market, where in recent decades fish consumption has increased almost in lock step with waning stocks. Aquaculture is destined to play a large role in Hawaii's future. I believe that if it wishes to realize fully the potential benefits of aquaculture, the state government must support the efforts exemplified by Kona Blue Water Farms, which is developing not only a business, but also a technology which may well form the foundation of an entire Hawaiian industry. It is very important to recognize that the technology for tropical open ocean aquaculture *will* be developed somewhere; if Hawaii is the place where the development occurs, it will enjoy an advantage comparable to that seen by California following the creation of the microelectronics industry there in the 1960's.

It seems to me the specific virtues of the Kona Blue Water Farms proposal are these: The company has a strong scientific foundation; its principals are ocean scientists with impressive research records. The proposal has been thought through and presented in remarkable detail. The proposed farm site has been chosen with great care to minimize impact on the local environment and on ocean usage. The principals have met and consulted with numerous local groups and with interested individuals, and have responded to concerns directly and seriously, as evidenced by the details of their Environmental Assessment report. No substantial objection to the establishment of the proposed farm has survived the careful arguments presented there.

It appears to me, therefore, that the Kona coast, the State of Hawaii, and in the long run perhaps the entire ocean environment stand only to gain if the application is granted.

Thank you for your attention.

Sincerely,

Richard Stauduhar, PhD

cc: Peter Young, Chairman, DLNR  
Neil Anthony Sims, Kona Blue Water Farms