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National Ocean Policy Study
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Aloha Ladies and Gentlemen,

I am greatly honored to have been asked to provide testimony and share my personal experience regarding offshore aquaculture. The responsibility of this Committee is an important one, as is the legislation regarding our oceans. As you navigate through the input regarding this issue, I have faith that the Nation's best interest will prevail.

I was born and raised in Hawaii, on the Island of Oahu. My first employment opportunity concerning marine life and the ocean began at the age of 15 when I started training dolphins for the United States Navy out of the Kane'ohe Marine Corp Base. Training mammals for the Navy allowed me to travel to many parts of the country and I was exposed to vast and diverse ocean conditions. In 1991, I became a contractor for the United States Defense Intelligence Agency, and although I did travel a good amount, this opportunity allowed me to do commercial fishing whenever at home. Throughout the 1990's, I became interested in research projects regarding marine environments and fisheries, and as a result, created a business to support research by providing ocean vessels, equipment, and manpower. This led to my involvement with the Hawaii Offshore Aquaculture Research Project (HOARP), which conducted research into the feasibility of open ocean aquaculture. My experience with, and the success of, this research project opened up my eyes to the realization that we can farm our seafood and do it in an environmentally sustainable manner while protecting our wild fish stocks. It was apparent then, just as it is today that the longevity of commercial fishing in my area will be short lived.

With the success of the HOARP project, it became apparent that commercial success of open ocean aquaculture in Hawaii would require changes to State laws and legislation. John Corbin with the Aquaculture Development Program (ADP) in Hawaii, along with a coalition of players and pioneers in the industry, were instrumental with the implementation of Chapter 190D, Hawaii Revised Statutes, addressing ocean and submerged land leasing that ultimately allowed utilization of Hawaii's ocean resources for research and sustainable development of open ocean aquaculture. In essence, this Hawaii statute is very similar to the Administration's bill regarding offshore aquaculture in federal waters. Many of the concerns being raised now are similar to concerns that were raised back in 1999 in Hawaii. Amendments made to Chapter 190D allowed our

company, Cates International Inc., to become the first business in the United States to be issued an open ocean lease for mariculture. Being the first was not easy, nor should it have been, and I continue to feel a personal responsibility for how this new industry develops both in Hawaii and in the U.S. We have much to offer, and I personally share experiences and learning lessons with the public as often as the opportunity presents itself.

There are many lessons to be learned from processes developed for the aquaculture industry in Hawaii. A fundamental lesson is that open ocean fish farming does work, and that it can be done without causing significant effects upon the environment. In fact, environmental changes associated with habitat creation have been seen as an environmental benefit. The Environmental Assessment (EA) process in place has proven to be adequate and successfully addresses concerns posed by the community. Our strict EA process forces potential companies to engage and meet with their communities and make themselves available to be questioned and challenged. While there are currently two successful companies operating in Hawaiian waters, there have been multiple attempts by potential companies to obtain leases, however, they were not able to satisfy regulatory standards due to inadequate planning and knowledge and their applications were therefore denied. This is testament that our community's expectations are high and that their concerns are being legitimately addressed. Another important aspect of the EA process is having a lead agency, such as the Aquaculture Development Program, which is essential in helping to create a straight-forward system to assist companies and investors. In addition, a federal agency such as NOAA is vital in having the authority to issue such leases. A compilation of State, Federal, and Community resources is a fundamental and important marriage in the creation of an EA process that works.

During our EA process, many concerns were raised. Some were valid and some were not, many were scare tactics fueled by misinformation, however, all were addressed. In Hawaii, we have made great strides in educating our communities and public about our industry, and continue to do so. This commitment will be ongoing on our part.

Environmental issues are a huge concern in our industry and there are safeguards in place. Hawaii legislation mandates that only indigenous fish be stocked in any offshore cage. It is my opinion that this is an important and sensible safeguard, but if a particular species could be grown without the possibility of causing harm to the wild sector, I think this should be looked at on a case by case basis. For example, if a certain species was proven to be sterile prior to being grown in an open ocean fish farm, thus eliminating the possibility for reproduction, this could be a consideration. Currently however, farming species native to the area is the safest approach to this issue.

Regarding the issue of disease, open ocean fish farming must face these issues just as traditional land based farms. Like all farming, we are always on the lookout for disease; we check for disease prior to putting the fingerlings into the offshore cages and diseases endemic to the environment will have to be managed at the farm level through careful monitoring of the fish stock and perhaps through crop rotation, limitation of crop density, or by pre-approved vaccinated stock just as is done in any farm where animal husbandry

is practiced. My experience with disease however is limited. We have been in business for 7 years and harvest upwards of 8000 pounds of fish per week, and we have not had issues with disease.

As this Committee and the Federal Government try to create a regulatory body for permitting, it is my belief that if the Federal Government needs to follow a path similar to that of Hawaii, the permitting process will likewise eliminate the potential for “bad actors”. I am confident in the process and oversight of offshore fish farming in Hawaii; there is currently an adequate system of checks and balances. We are a self-regulated as well as a State and Federally regulated industry, and I am concerned that any further regulation will deter investment into offshore fish farming by making the permitting process too cumbersome and slow. Presently, the permit process has proven to weed out weak companies and the EPA and other agencies that currently regulate our industry are sufficient. I am 100% owner of Cates International Inc., and purposely put my family name in the company’s title because I believe in and endorse all that we do completely. My community can be assured that I will not allow my operations in any way to harm the environment. I am also confident that as other new companies are permitted that they will have to follow the same regulations that I do. We as an industry do not want this to be an easy process; we want to ensure that adequate standards and regulations are in place to protect all we have invested and I am fully confident that the current regulations in place are sufficient.

Today, offshore leasing for reasons other than aquaculture, such as alternative energy and ports, is foreseeable and there are concerns that these leases may unfairly disadvantage or damage aquaculture operations. However, aquaculture as an industry has the right to expect that permits issued to other operations will not jeopardize its own operation or cause environmental damage. In fact, aquaculture would presume that permits would not be given to any operation that would impact the environment in such a way as to cause harm to aquaculture stock. Issues, therefore, could be directed to use of space. However, the Exclusive Economic Zone, or EEZ, is almost the same square miles as is the land area in the continental U.S. so a conflict with other structures over use of space seems improbable. According to calculations done recently by Dr. John Forester for NOAA, “Looking much further ahead, an industry producing two mmt [million metric tons] per year (NOAA’s projected additional deficit by 2025) would require about 10,000 acres of surface space for cages and 350,000 acres for placement of multiple anchors. These areas represent about 0.003% and 0.01% of the U.S. EEZ respectively and only 0.2% and 6.8% of the 11.9 million acres that are already allocated to marine sanctuaries. As noted earlier, two mmt of seafood per year produced by aquaculture represents about \$5 billion of imports and 150,000 direct and indirect jobs based on today’s metrics.”

Issues with mobile users of leased space, such as ships and fishermen, seem at first glance to be more of an issue. However, if such aquaculture operations are not permitted in or near shipping lanes or commercial fishing grounds this concern is alleviated. Also, operations should have to meet all of the lighting and safety standards and have proper navigation aids for standard ocean safety practices. We must keep in mind that these aquaculture operations, though they may seem large in scale, are actually miniscule when

put in an ocean environment. For example, in Norway their fish farming industry exceeds over \$1 billion a year, but the foot print of all of the sea cages combined for this industry is smaller than most runways at our large airports. The open ocean is immense and fishing vessels will have ample room to go around such areas. Likewise, we have many marine protected areas and large bodies of water that fishermen are prohibited from entering, such as sanctuaries, and there is no problem there.

As this committee considers legislation regarding open ocean fish farming, it is important to note what current research needs are, and what they will be. It will not make sense to pass such legislation unless we are willing to invest in this new industry, thus relieving pressure both on our wild stocks and on the trade deficit. The current level of funding available for research in offshore fish farming, to my knowledge, is less than \$5 million per year, and I strongly believe that we will need a level of around \$50 million per year to adequately satisfy needs on a national level. There is a sufficient level of funding for commercial venues to build new fishing vessels, but inadequate levels available for aquaculture ventures. This shortcoming needs to be addressed and fairly balanced.

At the same time, I strongly believe that the aquaculture industry should also be investing in research as well as other areas that we will directly benefit from. I feel some of the areas that industry should be responsible for are:

- Harvesting techniques which will be species and site specific
- Vessels used for daily operations
- Operational gear
- Marketing

However, there is a long list of areas that I feel our Government could and should play a role in assisting the offshore industry in research and development. I have often been told that the three rules to a good business are location, location, and location. This is also applies towards offshore fish farming; however, in reference to open ocean fish farming, I would argue hatchery, hatchery, hatchery. Nationally, we are not leaders when it comes to hatchery technology or species development and this area is vital! A successful fish farm is dependant upon a successful hatchery. I have found that other areas in need are development and testing of feedstock alternatives, deep water mooring systems, disease prevention, and research into new fish species.

I have been asked what the realistic expectations are that aquaculture can do for the U.S. regarding economic returns, food supply, and balance of trade. My response to this question is that I personally feel that if this legislation is implemented, we won't see an investment into salmon farming in the EEZ, but we will see an investment into new species, and most likely in the warmer water climates of the U.S. While a lot of opposition for this bill comes from Alaska fishermen, I seriously doubt that anyone would invest in the EEZ in Alaska. The environment there is very tough, and although it can be argued that it is tough anywhere in the U.S., it is doubly tough in Alaska. If it were to occur at all in Alaska, it will happen in State waters because of favorable working conditions. If the legislation encourages investment from the private sector, I predict a

slow start, approximately 2-4 years and we will possibly see several farms. But as we as an industry prove to ourselves and to others what our capabilities are and what the benefits that come along with it are, there will be significant growth. In Hawaii, we currently have invested nearly \$11 million between two farms, Cates International Inc. and Kona Blue Water, exclusively from the private sector, and I believe that we have the potential to be a \$100 million a year industry within the next 7 to 10 years. For the rest of the country, it really depends on two significant factors - first, whether or not upcoming legislation encourages investments without overburdening constraints, and second, whether or not the federal government seriously invests in research (e.g.. Hatchery development). To put this in perspective, in Hawaii, it is doubtful that we will venture into the EEZ in significant numbers due to the depth of water, but for the rest of the country, it will most likely have to occur in the EEZ due to the shallow water conditions near shore.

In 1999, many in Hawaii predicted open ocean fish farming would be an ecological disaster. These concerns led both State and Federal government agencies to research and investigate the negative impacts of fish farming on our site, and nearly six years later, no negative impact has been found. On the contrary, although no funding has been provided to research positive impacts, it is readily apparent that there has been much. Positive impact is evident in our production numbers; we have been able to raise over 1 million pounds of fish that would have otherwise been taken from the wild by commercial fisheries. This has been done in an area of approximately two acres which consisted of only a sandy bottom habitat (no fish were observed during site surveys prior to farm development). This area is now home to a vast and diversified ecosystem. In fact, some of the very individuals that raised environmental concerns now benefit directly from our site and routinely fish the area. Our community also benefit with fresh, local, farm raised fish available year round that is not affected by limited fishing seasons. We raise Hawaiian Moi, a fish once reserved for Hawaiian Ali'i or Royalty and a fish that was nearly extinct in the wild. It is now available to everyone at an affordable price. I have often been thanked by members of our elderly community, many of whom were raised eating this particular fish and can now enjoy eating it again.

Our local chefs and restaurants also benefit by having a fresh, locally grown product available year round. In Hawaii, the term "farmed raised" is positively used in advertising and marketing, and many of the top chefs and restaurants overwhelmingly endorse our company and product. As an employer and fish farmer, I have financially been able to increase the income of my employees nearly 70%, and we go home to our families every night. All of these reasons, in my opinion, are positive impact and have never been measured by opponents of aquaculture.

In conclusion, as this Committee evaluates whether to allow offshore aquaculture facilities to operate within the U.S. Exclusive Economic Zone, I am reminded of a lesson I learned very early in life. My father, who was also born in Hawaii, was very involved with Hawaiian canoe paddling and when I was a young child at the age of seven, he would take me out on the ocean with his canoe team. A well respected, strong Hawaiian man by the name of "Cappy" was teaching me how to steer a canoe, and I once asked

him how do you know where you are going once it gets dark. He said “If you don’t change course, you will end up where you are heading”. Simple words spoken by a true Hawaiian man. We as a Nation know where we are heading with respect to our fisheries; we are all aware of the enormous demand for seafood, and the pressure that places upon our wild stocks. NOAA and the National Marine Fisheries Service have done a good job in identifying what course we are on and have made good recommendations on what needs to be changed. It is now time to change direction and that responsibility lies with this Committee. Change is not easy - it never is, but I am confident that when presented with all of the information, this Committee will make the right decision and support this legislation for the benefit of all Americans and our oceans. The ocean and the EEZ is a public resource, and the American public deserves to have fresh fish that is affordable, both wild and farmed.

I sincerely thank all of you for taking the time to listen to my testimony and for inviting me to take part in this historic step in the world of aquaculture. I truly believe that this will put us all in a better place during a time that we as a society are consciously trying to live healthier, and I am thankful that I could play a small part in a monumental act that will benefit the generation of my young son, as well as those to come.

Mahalo,

John R. Cates, President
Cates International Inc.