

DAVID Y. IGE  
Governor

JOSH GREEN  
Lt. Governor



PHYLLIS SHIMABUKURO-GEISER  
Chairperson, Board of Agriculture

GLENN K. MURANAKA  
Deputy to the Chairperson

State of Hawaii  
**DEPARTMENT OF AGRICULTURE**  
1428 South King Street  
Honolulu, Hawaii 96814-2512  
Phone: (808) 973-9600 FAX: (808) 973-9613

**TESTIMONY OF PHYLLIS SHIMABUKURO-GEISER  
CHAIRPERSON, BOARD OF AGRICULTURE**

**BEFORE THE HOUSE COMMITTEE ON AGRICULTURE**

**MARCH 15, 2019  
9:00 A.M.  
CONFERENCE ROOM 312**

**SENATE BILL NO. 753 SD2  
RELATING TO AQUACULTURE**

Chairperson Creagan and Members of the Committee:

Thank you for the opportunity to present testimony on Senate Bill 753 SD2. This bill appropriates funding for operational expenses to revitalize the aquaculture development program and to expand the industry statewide. The Department of Agriculture supports this bill provided it does not impact the Department's priorities listed in the Executive Budget.

The passage of SB 753 will be useful in supporting the expansion of the aquaculture industry in Hawaii. Aquaculture is poised to make a significant contribution to the Governor's goal of doubling food production, as it is the most efficient method of protein production. Dedicated funds will allow for investment in foundational infrastructure and research, including helping farmers use research-based knowledge, which will have long-term benefits for the entire industry. The Department would like to see this funding maintained in the department's budget past 2020 to ensure industry development can be supported in a consistent and reliable manner.

Thank you for the opportunity to testify on this measure.





THE SENATE  
THE THIRTIETH LEGISLATURE  
REGULAR SESSION OF 2019

COMMITTEE ON AGRICULTURE

Representative Richard P. Creagan, Chair

Representative Lynn DeCoite, Vice Chair

DATE: Friday March 15, 2019  
TIME: 9:00 AM.  
PLACE: Conference Room 312  
State Capitol  
415 South Beretania Street

Re: SB 753 SD2 Relating to Aquaculture

Dear Chair Creagan, Vice Chair DeCoite, and Committee Members:

The Hawaii Aquaculture & Aquaponics Association (HAAA) **strongly supports the intent of SB 753 SD2**, to appropriate funds to revitalize the Aquaculture Development Program (ADP) and to expand the aquaculture industry statewide.

The HAAA has worked closely with the State Legislature and State and County governments to provide industry advocacy and support since 1975. The 2017 aquaculture industry farm gate value of \$76.4 million now places the industry third in diversified agriculture's contribution to the economy. Support is needed to achieve greater benefits to the Hawaii economy, provide healthy seafood for local markets and export, generate good jobs, complement tourism and maintain rural communities. Hawaii is recognized as a national leader in aquaculture research, planning and development. An important reason has been the proactive policy and financial support from the State government that made aquaculture a priority in the State's portfolio of economic development initiatives. Implementation was in large part through the establishment of ADP, as the industry advocate within State government. However, with declining support, ADP lost its critical advocacy role to assist industry's economic development. By 2018, ADP had been downsized and made a Branch under the Animal Industry Division of the Department of Agriculture (DOA), and the new mission emphasized product marketing rather than broad spectrum industry development.

ADP needs to be elevated to Division status within DOA to provide the high-level visibility and stature needed to work across Departments on a variety of issues. Encouraging commercial aquaculture is consistent with long-term State goals to enhance food security, encourage

sustainable industries, diversify the economy, and support rural development. We recommend reestablishment of aquaculture and aquaponics as State priorities and components of all economic development strategies and policies to reflect this strong commitment. We recommend reestablishment of ADP to be an effective aquaculture industry facilitator and to be an advocate within State government for statewide sustainable development. Staffing and budget should be provided commensurate with the statewide responsibility of growing new aquaculture businesses to advance the goals described above, at a funding level of \$500,000 above the current level of funding.

We note that SB 753 as written is rather vague as to the use of the proposed funding. We therefore respectfully request your consideration of the following amendments to SB 753 SD2:

SECTION 2. There is appropriated out of the general revenues of the State of Hawaii the additional sum of \$500,000 or so much thereof as may be necessary for fiscal year 2019-2020 and the same sum or so much thereof as may be necessary for fiscal year 2020-2021 for the revitalization of the aquaculture development program[.], as the lead agency for industry development within State government. Priorities for expenditure of these funds are strengthening staff expertise and capabilities in industry assistance for: information collection and dissemination, species and site selection, facilitation of permit acquisition, product and technical services marketing, and cost-sharing of targeted research and extension services with the University of Hawaii.

The HAAA Board of Directors has carefully prepared the attached White Paper titled *Restoring Aquaculture Industry Advocacy in Hawaii State Government* to further expand on this important economic development opportunity. **We would be happy to discuss the information in this White Paper and provide additional information in support of SB 753 SD2.**

Thank you for the opportunity to testify in support of this important measure.

Sincerely,  
Ronald P. Weidenbach  
HAAA President on behalf of the Board of Directors



January 28, 2019

## **Restoring Aquaculture Industry Advocacy in Hawaii State Government**

### **Executive Summary**

This White Paper presents the need for action to attain the significant benefits of restoring aquaculture development and advocacy as an economic development priority for Hawaii. The Hawaii Aquaculture and Aquaponics Association (HAAA) has worked closely with the State Legislature and State and County governments to provide industry advocacy and support since 1975. The 2017 aquaculture industry farm gate value of \$76.4 million dollars now places the industry third in diversified agriculture's contribution to the economy. Support is needed to achieve greater benefits to the Hawaii economy, provide healthy seafood for local markets and export, generate good jobs, complement tourism and maintain rural communities. Hawaii is recognized as a national leader in aquaculture research, planning and development. An important reason has been the proactive policy and financial support from the State government that made aquaculture a priority in the State's portfolio of economic development initiatives. Implementation was in large part through the establishment of an Aquaculture Development Program (ADP), as the industry advocate within State government. However, with declined support, ADP lost its critical advocacy role to assist industry's economic development focus. By 2018, ADP had been downsized and made a section under the Animal Industry Division of DOA and the new mission emphasized product marketing rather than broad spectrum industry development.

ADP needs to be restored to the program in the Chairpersons' Office, Department of Agriculture (DOA) to provide the high-level visibility and stature to work across Departments on a variety of issues. Encouraging commercial aquaculture is consistent with long-term State goals to enhance food security, encourage sustainable industries, diversify the economy, and support rural development. We recommend reestablishment of aquaculture and aquaponics as State priorities and components of all economic development strategies and policies to reflect this strong commitment. We recommend reestablishment of the Aquaculture Development Program to be an effective aquaculture industry facilitator and advocate within State government for statewide sustainable development and provide staffing and budget commensurate with the statewide responsibility of growing new aquaculture businesses to advance the foals described above. The HAAA Board of Directors would be pleased to provide discuss aquaculture information, and details related to implementation of these goals.

### **1.0 Background, Aquaculture's Role in the Economy**



The Hawaii Aquaculture and Aquaponics Association (HAAA) and its predecessor organizations have provided industry advocacy and support since 1975. Over the years, HAAA has worked closely with the State Legislature, State and County governments, the University of Hawaii (UH) and private partners like the Oceanic Institute (OI), on a shared mission to foster the sustainable statewide expansion of commercial aquaculture and more recently aquaponics. We understand that further development and expanding the diversity of species and technologies can achieve greater benefits to the Hawaii economy, provide healthy seafood for the local market and export, generate good jobs, complement tourism and help maintain rural spaces, life styles and communities.

**Past success is underscored by the 2017 aquaculture industry farm gate value of \$76.4 million dollars, that places the industry as high as 3<sup>rd</sup> in Diversified Agriculture's contribution to the economy, behind seed crops and livestock.** To highlight a few bright spots: the diversity of species grown at the Natural Energy Laboratory of Hawaii Authority (NELHA), establishment of the Pacific Aquaculture and Coastal Resources Center in Hilo, internationally impactful marine shrimp and fish research at UH and OI, establishment of the Center for Tropical and Subtropical Aquaculture that serves Hawaii and the U.S. Flag Islands, the emergence of aquaponics, a resurgence of interest in restoring ancient Hawaiian fishponds, and the recent State funding for an Aquaculture Business Incubator at NELHA to foster entrepreneurship **(HAAA would be happy to provide more industry details and organize facility visits).**

## **2.0 Status of Government Support**

Recently, the Board of Directors (BOD) of HAAA reviewed current industry support available from State government and UH and compared it to previous years, circa 2000 to the present. We note there has been virtually no growth in industry value since 2014. In recent years, the State has made significant investments in aquaculture research, planning and infrastructure, recognizing the growing global need for aquatic protein and the opportunities for sale of seafood products, technology and technical services, as well as offering educational opportunities.

State funds also leveraged large amounts of Federal and private research funding that have widespread benefit to the economy. The islands sub-tropical climate, geographic isolation, and natural resources provide production advantages to certain types of aquaculture. The BOD review concluded that tangible State support of development has been reduced significantly in recent years, particularly with respect to direct, hands on assistance to existing and prospective business investment.

Historically, Hawaii was recognized as a national leader in aquaculture research, planning and development, particularly in marine (salt water) aquaculture or mariculture. One important reason was the proactive expansion policy and significant financial support from the Legislature and State government, that made aquaculture a priority in the State's portfolio of economic development initiatives. Implementation was in large part through the establishment of an

Aquaculture Development Program (ADP), as the lead program and industry advocate within State government. However, support has shrunk significantly since 2000 and HAAA believes the Program has lost its economic development focus. ADP has had to drastically curtailed its critical advocacy role and capacity to assist industry by virtue of major changes in organization, staffing, and budget.

- **Change in Organizational Placement-** ADP at the beginning of the 21 st Century was a program in the Chairpersons' Office, Department of Agriculture (DOA) – essentially at Division level. Reporting to the Chair of DOA provided the high-level visibility and stature to work across Departments on a variety of issues, as well as represent the State at national and international forums.

By 2018, ADP had been downsized and made a Section under the Animal Industry Division, DOA (see Staffing discussion). In addition, the responsibilities of the Program were changed by adding support for the Livestock Industry (e.g., cattle and pigs) to its role and it was renamed Aquaculture and Livestock Support Services (ALSS). Importantly, the new placement and mission emphasized product marketing rather than broad spectrum industry development.

- **Reduction in Staff-** In 2000 ADP had a staff of seven. The seven positions were: Manager, Secretary, Aquaculture Specialist, Marketing Specialist, Aquaculture Veterinarian, and two veterinary technicians (Prior to 1997 the Program also had an Information Specialist and a Clerk Typist). This Staff handled: planning and policy; industry support services and direct assistance (i.e., finding sites, facilitating permits, providing information, marketing of products and technical services and disease prevention and management); and a small research and extension budget to match a yearly UH Sea Grant research and extension program.

Today the Program consists of a Manager, Aquaculture Specialist, and Economic Development Specialist. The Veterinarian and one technician remained in the Animal Industry Division supervised by the Division Head and focused on managing one important industry segment the disease-free shrimp certification program that helps private farms and OI export certified Specific Pathogen Free (SPF) shrimp broodstock to the mainland, South America and Southeast Asia. The unit no longer focuses on general disease diagnosis and prevention services to aquafarmers statewide. Amplifying the impact of this loss of ADP staff assistance was the loss of three key statewide technical extension positions in the UH Sea Grant Program, which were co-funded by ADP.

- **Reduced ADP Budget-** As with all State program budgets, after staff salaries are covered, there must be sufficient operating funds to provide for needed equipment, supplies, travel, etc. to do the work; accomplish the industry expansion mission. In 2000, ADP was in the DOA and consisted of 7 positions previously described. The overall annual budget was \$502, 050, including salaries and operating funds.

In 2018 there were 3 positions and an overall budget of \$437, 913, a reduction of \$64,137. The combined staff and funds reduction have severely reduced the scope of Program activities and its ability to work with its partners and leverage additional resources.

### **3.0 Why a New Aquaculture Focus**

#### **3.1 Fits Long-term State Goals**

Encouraging commercial land based and ocean farming is consistent with long-term State goals for the future, as defined by the Governor and the Legislature.

- **Enhance Food Security-** Hawaii imports around 90 % of its food overall and 70 % of the seafood consumed. The Governor wants to increase Island food production and self-sufficiency so that we would be less impacted by the interruption of imports. Considering Hawaii's per capita seafood consumption is nearly 3 times the U.S. mainland (46 lbs. per person), with a large and growing tourist market component, expanding commercial aquaculture makes sense as a component of a food security strategy.
- **Encourage Sustainable Industries-** Hawaii must continue to grow and diversify its economy and generate good jobs for its citizens. However, business development should fit with conservation of our natural resources and community desires for sustainable industries, that help preserve a quality environment and quality of life for future generations. Modern aquaculture technologies offer a variety of valuable fresh, brackish and saltwater species for culture and likewise a variety of land-based and ocean farming systems that have been demonstrated sustainable. While finding sites for farms can be challenging on land and in the ocean, suitable locations do exist on all islands.
- **Support Rural Development-** In economic development terms, Hawaii's urban centers offer the preponderance of jobs. Rural communities around the state have more limited options to grow and maintain needed commerce, e.g., various tourist destination models and agriculture farming by families and corporations. Aquaculture adds another farming option for job generation in rural areas that can preserve preferred life styles and open space.

### **3.2 A New National Aquaculture Initiative**

With the change in Administrations in Washington DC and a Congress interested in growing the economy and job generation, aquaculture development has gotten increased attention. Congress is very concerned that 90 % of U.S. seafood is imported, largely from Third World countries, and domestic seafood production must be increased. HAAA believes it is very timely for the State to strengthen its commitment to expanding the Island industry.

A number of recent actions by the Administration and Congress illustrate this new momentum. There have been significant increases in research funding for aquaculture in the National Sea Grant Program, Department of Commerce and the Regional Aquaculture Center Program, Department of Agriculture. The Office of Aquaculture in NOAA Fisheries has funding for a National Marine Aquaculture Initiatives for fish and shellfish and there is a new announcement for Saltonstall-Kennedy funding targeting aquaculture topics. The Department of Energy has a large research/demonstration grant program focused on growing seaweeds in the ocean for energy generation – a Hawaii company got one of the grants. These R&D efforts are being complemented by nationwide efforts to streamline the federal government regulatory process for commercial aquaculture.

The most exciting recent occurrence deals with the introduction in 2017 of the Advancing the Quality and Understanding of American Aquaculture Act (AQUAA), S 3138, by Senator Roger Wicker of Mississippi. The bill would among other things establish a lead agency for marine aquaculture in NOAA that could issue permits for siting commercial farms in U.S. Federal waters, the Exclusive Economic Zone, and assist state-level development. More important to Hawaii aquaculture interests, the bill authorizes \$350 million dollars over 5 years to implement the legislation. Suitable areas to farm in the EEZ would be identified and subject to a Programmatic Environmental Impact Statement and research would target high leverage technical bottlenecks and demonstration of applied technologies.

Hawaii with its experienced University and private sector marine aquaculture research community and infrastructure could greatly benefit from the bill. Particularly relevant is the state's track record in commercial, open ocean aquaculture - Hawaii currently has the only open ocean fish farm in the U.S. – and the growing opportunity to attract additional private investment, which is on the rise all around the world.

### **4.0 Conclusions and Recommendations**

HAAA agrees with the United Nations and strongly believes in clearly evident national and global trends that increases in seafood supply must come from aquaculture and the next frontier for development is the open ocean. The U.S. is beginning to embrace these ideas and recent actions by the Administration and Congress underscore that conclusion. The Hawaii aquaculture community can realize many future benefits from the increasing national commitment to freshwater and marine aquaculture and HAAA has two recommendations to position the state to realize these benefits:

- 1) **Re-establish aquaculture and aquaponics as State priorities and a component of all economic development strategies, policies and plans, so State and County governments, the University of Hawaii and private universities, the private investment and technology sectors, and the general public understand this strong commitment.**
- 2) **Rebuild the Aquaculture Development Program as an effective aquaculture industry facilitator and advocate within State government for statewide sustainable development. Give the Program Division status within DOA and provide staffing and a budget commensurate with the statewide responsibility of siting and growing new aquaculture businesses.**

**T  
h  
e**

**H  
A  
A  
A**

**B  
O  
D**

**w  
o  
u  
l  
d**

**b  
e**

**h  
a  
p  
p  
y**

**t  
o**

**d  
i  
s  
c  
u**



P.O. Box 253, Kunia, Hawai'i 96759  
Phone: (808) 848-2074; Fax: (808) 848-1921  
e-mail [info@hfbf.org](mailto:info@hfbf.org); [www.hfbf.org](http://www.hfbf.org)

March 15, 2019

HEARING BEFORE THE  
HOUSE COMMITTEE ON AGRICULTURE

**TESTIMONY ON SB 753, SD2**  
RELATING TO AQUACULTURE

Room 312  
9:00 AM

Aloha Chair Creagan, Vice Chair DeCoite, and Members of the Committee:

I am Brian Miyamoto, Executive Director of the Hawaii Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,900 farm family members statewide, and serves as Hawaii's voice of agriculture to protect, advocate and advance the social, economic and educational interests of our diverse agricultural community.

**The Hawaii Farm Bureau strongly supports SB 753, SD2**, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Hawaii had an innovative aquaculture development program (ADP) during the 1980s and 1990s, initially under DBED, then DLNR, and finally DOA. ADP assisted prospective farmers and investors in many ways, including technical assistance, help with site selection and permitting, and perhaps most importantly, providing a strong voice within government in support of aquaculture as a desirable and appropriate industry for Hawaii. ADP played a large part in creating an industry that, starting from almost zero in the 1970s, now generates more than \$70 million annually and is one of the largest sectors of Hawaii's diversified agriculture. Unfortunately, despite its success, ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have leveled off in recent years. In order to restore ADP's ability to help develop aquaculture as a beneficial and sustainable industry for Hawaii, we believe that the following provisions are necessary: 1) increased information dissemination to industry, 2) assistance with site selection and permitting, 3) enhance existing aquatic disease prevention services, and 4) increase in staffing.

Thank you for this opportunity to testify on this important measure.

**SB-753-SD-2**

Submitted on: 3/14/2019 8:37:20 AM

Testimony for AGR on 3/15/2019 9:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Warren Watanabe	Maui County Farm Bureau	Support	No

Comments:



## **Board of Directors 2018 - 2020**

President  
Joshua Uyehara

Vice-President  
Warren Mayberry

Secretary  
Dawn Bicoy

Treasurer  
Laurie Yoshida

Directors-at-Large  
Alan Takemoto  
Adolf Helm  
Leslie Campaniano  
Dan Clegg  
Joshua Uyehara  
Warren Mayberry

President Emeritus  
Alan Takemoto

Executive Director  
Bennette Misalucha

## TESTIMONY FROM BENNETTE MISALUCHA, EXECUTIVE DIRECTOR

In Support of SB753, SD2  
Relating to the Department of Agriculture

HOUSE COMMITTEE ON AGRICULTURE  
March 15, 2019, 9:00 a.m.  
Conference Room 312

Chair Creagan and members of the committee:

The Hawaii Crop Improvement Association (HCIA) is in support of SB753, SD2, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the Department of Agriculture.

Aquaculture generates \$70 million per year and is one of the largest sectors of Hawaii's diversified agriculture. However, despite this, the Department of Agriculture's aquaculture development program has been reduced both in size and in function. Funding is needed to cover operational expenses to revitalize the program to ensure the future success and growth of the industry.

HCIA respectfully requests that this committee vote in support of SB753, SD2. Mahalo for your time and consideration.

Respectfully,

Bennette Misalucha  
Executive Director, Hawaii Crop Improvement Association

*The Hawaii Crop Improvement Association is a Hawaii-based non-profit organization that promotes modern agriculture to help farmers and communities succeed. Through education, collaboration, and advocacy, we work to ensure a safe and sustainable food supply, support responsible farming practices, and build a healthy economy.*



**SB-753-SD-2**

Submitted on: 3/13/2019 6:07:38 PM

Testimony for AGR on 3/15/2019 9:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Glenn Martinez	Farmers Union	Support	No

Comments:

Past President of Hawaii Farmers Union. I was present when Gov. Lingle present a lengthy PROCLAMATION honoring the Dept of Aquaculture team for all there ood work and for being the "fastest growing segemnt of agriculute in Hawaii. Over 20 minutes of praise. Three weeks later the Aquculture team was locked out of offies, and everyone fired, with only the State Vet Allen Rigs and Mr. Todd being reassigned to other duties.

Since that crushing of this support team, our industry has struggled with little of no State Agriculutre support. Please make things right and respect the fine work that has been done in the past. Our Industry needs the help. I currently operate Olomana Gardens and am a consultant to 22 successful Aquaponic farms in the State of Hawaii.



March 13, 2019

Representative Richard P. Creagan, Chair  
Representative Lynn De Coite, Vice Chair  
House Committee on Agriculture

**Support of SB 753, SD2, Relating to Aquaculture (Appropriates funds for operational expenses for revitalizing the aquaculture development program within the Department of Agriculture).**

**Friday, March 15, 2019, 9:00 a.m., in Conference Room 312**

The Land Use Research Foundation of Hawaii (LURF) is a private, non-profit research and trade association whose members include major Hawaii landowners, developers and a utility company. LURF's mission is to advocate for reasonable, rational and equitable land use planning, legislation and regulations that encourage well-planned economic growth and development, while safeguarding Hawaii's significant natural and cultural resources, and public health and safety.

LURF appreciates the opportunity to express its **support of SB 753, SD2** and of the various agricultural stakeholder groups who defend the goals of viable agricultural operations and the conservation and protection of agriculture, including important agricultural lands (IAL) in Hawaii.

**SB 753, SD2.** This bill proposes to appropriate funds to be expended by the Department of Agriculture for operational expenses for the revitalization of the aquaculture development program.

**LURF's Position.** LURF members include farmers who own, maintain, and engage in agricultural enterprises, and who consider such assistance very helpful, if not critical to the agriculture industry and conduct of their operations, to help sustain their businesses, promote local food production, and increase the State's ability to achieve its food sustainability goals.

LURF appreciates the objective of SB 753, SD2, which is to support the revitalization and continued development of Hawaii's aquaculture industry, and believes that this bill is consistent with the underlying intent and objectives of the IAL laws (Hawaii Revised Statutes, Sections 205-41 to 52), which were enacted to fulfill the mandate in Article XI, Section 3, of the Hawaii State Constitution, "to conserve and protect agricultural lands,

promote diversified agriculture, increase agricultural self-sufficiency and assure the availability of agriculturally suitable lands.”

By recognizing the significance of, and need to assist the local aquaculture industry, and implement incentives which help to support the growth and maintenance of aquaculture in the State, this bill significantly helps to promote economically viable agriculture, food production, and food self-sufficiency in Hawaii.

For the reasons set forth above, LURF is **in support of SB 753, SD2**, and respectfully urges your favorable consideration of this bill.

Thank you for the opportunity to present testimony regarding this measure.

**SB-753-SD-2**

Submitted on: 3/13/2019 3:26:53 PM

Testimony for AGR on 3/15/2019 9:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jen Johansen	Cyanotech Corporation	Support	No

Comments:

Dear Senate Ways & Means Committee,

Cyanotech Corporation is a publically held microalgae company on the Kona Coast. We have been in business over 30 years and employ approximately 125 people. We have been a significant contributor to the State's Aquaculture sales of \$76.4M in 2017. The industry as a whole accounts for a peak number of 500 hired workers on payroll in 2016. Aquaculture produces high quality value added commodities from Hawaii including nutritional supplements and foods.

With continued support this industry can continue to grow, offer a wide variety of local jobs, and further diversify our State's economy. We strongly support SB 753 and appropriation of funds for operational expense and revitalization of the Aquaculture Development Program within DOA.

Sincerely,

Jen Johansen

VP of Quality, Regulatory & Government Affairs

Cyanotech Corporation



March 14, 2019

Testimony SB 753

My name is Bob Endreson and I would like to submit testimony relating to SB 753.

We operate a fish farm in North Kohala on the Big Island. Our fish farm is one of the largest of its kind in the U.S. and includes a hatchery and a processing plant that can process 54 million pounds of product per year, which is also the first of its' kind in the U.S.

It took a great deal of planning and work to get this project off the ground. We are completely off the grid. We have our own power plant and our waste water is used for irrigation. No government funding was used and this was done to create an economic engine for aqua culture on the Big Island. People said it couldn't be done, yet the Legislature and the Governor were calling for Food Security in Hawaii. The goal was to raise local production, so we did. The total amount of farmed raised tilapia grown in Hawaii prior to our farm was only 70,000 lbs. annually. We've increased that our first year to 2.5 million pounds. This will increase exponentially as we add additional farmers to the program and process their fish. We've already lowered local farmers' feed costs and fry costs by almost half and with the right over-sight, Hawaii Island has the potential to produce \$100 million in revenue annually through fish farming.

Aqua Culture and Fish Farming is ideal for Hawaii. Hawaii is the only State in the US that can grow fish year round because of our weather. The problem fish farmers always faced was shipping it to the mainland fresh. Now we can process, freeze and ship container loads of fish just like they do in Alaska. Another first in Hawaii. The US imports 500-60 million pounds of tilapia per year. None of it US grown with a few small exceptions. Hawaii alone imports more than 1.4 million pounds each year from Asia and South America. Our Dept of Education, Dept. of Corrections, Dept of Defense can all now take advantage of a locally grown, healthy U.S. product, that by all standards exceeds any other product of its kind.

The Hawaii Brand for seafood has been strong since the 1990's when DBEDT spent millions promoting it as a clean reliable source of seafood. Today, the US and the world are facing poor quality and dangerous seafood imports that consumers are becoming more and more interested in. <http://www.hawaiinewsnow.com/2019/02/11/untested-water-percent-foreign-fish-goes-without-testing-unsafe-drugs/>

The reason for my interest in SB 753 is because Hawaii is at a critical phase with regard to food production and infrastructure to sustain, promote and make it safe. This resonated with me to even a higher degree last week when grocery store shelves were bare because weather slowed shipping and I saw the Mayors of each County coming before the Legislature asking for more money to address Sea Level Rise in the coming years. Mayor Caldwell went so far as to say Honolulu needed the money to "raise the streets" because of sea level rise. He also released the

report of the Climate Change Commission which said Oahu is the most vulnerable and could see 4,000 structures destroyed, miles of roads washed away and \$12.5 Billion of property put at risk including our harbors.

We need Food Security now more than ever. You need a Dept. of Ag that is looking to create infrastructure farmers can use and promote Hawaii products. A Dept. of Ag that can work with and co-mingle efforts with the private sector. A Dept of Ag that looks to utilize our waste for cattle feed, compost and a host of other things that can be and needs to be done to make a business successful. It's a systems wide approach that you need to start now. Please don't throw the baby out with the bathwater. Ag is the only lifeline we have in Hawaii that we can control. Think about it. The only thing that we can control by our own actions is what we can grow. Invest in Ag and Aqua Culture Development.

I've been fishing around the world for over 50 years. I can tell you now, it's really bad. 85% of the fish being caught in the Pacific have micro plastics in their stomach contents because of marine debris. Other fish are radioactive. Even bottom fish in Hawaii have high levels of Mercury while other species we count on are over fished.

So if we don't take care of what we can grow Locally, in the way of beef, produce and fish, the costs of importing those soon to be diminishing commodities will be even a further strain on Hawaii in the coming years.

Mahalo

Bob Endreson



**Committee on Agriculture**

Representative Richard Creagan, Chair

Representative Lynn DeCoite, Vice Chair

March 13, 2019

Support for S.B. 753 SD2 Relating to Aquaculture

Blue Ocean Mariculture is the world's leading producer of cultivated Kahala (*Seriola rivoliana*). Our fish are served under the Hawaiian Kanpachi brand in sushi and fine dining restaurants in Hawaii and across the mainland United States. We employ 27 people full-time in the Kona area in our hatchery and offshore aquaculture operations. Blue Ocean's hatchery is located within the Natural Energy Laboratory of Hawaii Authority (NELHA).

We strongly support S.B. 753 SD2 related to reviving the Aquaculture Development Program to further advance Hawaii's aquaculture industry.

An Aquaculture Development Program in Hawaii will be a valuable resource in continuing to build a strong aquaculture industry across the state. Aquaculture provides an opportunity to strengthen our state's economy by diversifying our economic base, reducing the amount of seafood imported to Hawaii, and creating high-wage job opportunities.

We also believe Hawaii can be a leader in the global aquaculture industry and provide leadership on environmentally responsible aquaculture practices. We believe the best way to pursue Hawaii's potential in aquaculture is through the type of program contemplated by S.B. 753 SD2. Thank you for the opportunity to testify.

Blue Ocean Mariculture

HOUSE OF REPRESENTATIVES  
THE THIRTIETH LEGISLATURE  
REGULAR SESSION OF 2019

COMMITTEE ON AGRICULTURE

Rep. Richard P. Creagan, Chair  
Rep. Lynn DeCoite, Vice Chair

DATE: Friday, March 15, 2019  
TIME: 9:00am  
PLACE: Conference Room 312  
State Capitol  
415 South Beretania Street

Re: SB 753, SD2 Relating to Aquaculture

Chair Creagan, Vice Chair DeConte, and Members of the Committee:

I am pleased to offer testimony in strong support of SB 753 SD 2, Relating to Aquaculture, which provides unspecified funds in FY 20 and 21 to revitalize and reestablish a fully functional State Aquaculture Development Program (ADP). The Department of Agriculture (DOA) is the expending agency, as State lead agency for aquaculture development, and a place-holder date of 2050 is used for further discussion.

I am providing these comments from the perspective of having managed the ADP from 1979 to 2006 and as co-author of the White Paper titled "Restoring Aquaculture Industry Advocacy in Hawaii State Government," provided by the Board of Directors, Hawaii Aquaculture and Aquaponics Association (HAAA). The analysis looked at the recent history and status of ADP in the context of: its past, present and desired role in Hawaii's economy; past and present levels of government support and Program changes; and current State and National industry development goals and activities.

Briefly, to highlight the paper's major points:

- Hawaii has established a national and international reputation in aquaculture development. We are home for: the Natural Energy Laboratory of Hawaii Authority, a cutting-edge technology aquaculture park; the U.S. Regional Aquaculture Center for the Pacific; the Pacific Aquaculture and Coastal Resources Center in Hilo; the internationally recognized Oceanic Institute (OI); and the soon to be built Aquaculture Business Incubator in Kona. The State, University of Hawaii and OI have a track record of conducting highly impactful marine fish and shrimp research, e.g., Hawaii is a world source for oyster seed and certified disease -free shrimp broodstock.

One important reason for this success, in addition to a strong State policy, was establishment of an ADP as lead program and industry advocate within government. When last measured, Hawaii had the 6<sup>th</sup> largest industry in value in the U.S.



- The HAAA review revealed State support for ADP has shrunk in recent years, impacting in particular “hands on” staff assistance to existing and prospective farmers. Since 2000 staffing has been reduced from seven positions to three reducing expertise available and ADP’s organizational placement has been lowered to Section status under Animal Industries Division, from a Program in the Chair’s Office; while adding Livestock Support responsibilities. In addition, operating funds have been reduced significantly, limiting targeted issue responses and leveraging of federal funds by cost-sharing.
- Consider the above statements in concert with the fact stated by the United Nations that future increases in global seafood supply will come from aquaculture and the US imports 90% of the seafood consumed from a high risk, extended supply chain. Further, Administration and Congressional decision-makers are addressing the concern and have recently substantially increased research and development funding to expand domestic seafood production, particularly from marine aquaculture sources. Hawaii’s experienced cadre of scientists with expertise in this area should be able to compete for these funds.

For Hawaii decision-makers the multi-faceted role of aquaculture to benefit its citizens is clear: enhance food security, encourage sustainable and environmentally responsible industries, and support job generation and resource preservation in rural areas. Clearly, aquaculture development is a means to realizing these statewide benefits.

- HAAA has made two action recommendations to the Legislature, which I strongly support: 1) Re-establish and publicize that aquaculture and aquaponics are State priorities for economic development and diversification and 2) Rebuild the ADP as an effective advocate and facilitator for statewide sustainable development and give the Program Division status within DOA for needed stature and expert staffing commensurate with the technical challenges and broad, statewide responsibilities.

Earlier versions of SB 753 provided \$500,000 for each year of the biennium to address the gap in support described. I and HAAA strongly support this funding level, but recommend an amendment that provides further guidance for the expenditure. The HAAA testimony language focuses on the specific types of subject-matter expertise and capabilities that previously contributed to the Program’s success. I strongly endorse this amendment as these are the staff knowledge areas and uses of funding to leverage Federal monies that were critical to successfully expanding the industry.

Thank you for the opportunity to offer these comments.

John S. Corbin MS, CFP, AICP  
 President  
 Aquaculture Planning & Advocacy LLC  
 Kaneohe, Hawaii  
 Phone: 808 239-8316

2029 Nuuanu Ave. #1510  
Honolulu, Hawai'i 96817  
March 13, 2019

Representative Richard P. Creagan, Chair  
Representative Lynn DeCoite, Vice Chair  
House Committee on Agriculture  
Hawaii State Capitol, 415 S. Beretania St.  
Honolulu, Hawai'i 96813

Dear Chair Creagan, Vice Chair DeCoite, and Members of the Committee:

I am sending this testimony to express my **strong support for the intent of SB 753 SD2**, "Relating to Aquaculture," which would appropriate funds to revitalize Hawai'i's aquaculture development program. Hawai'i had an excellent aquaculture development program during the 1980's and 1990's – good enough that other states modeled their programs after Hawai'i's. Hawai'i's original Aquaculture Development Program (ADP) played a large part in creating an industry that generates more than \$70 million in annual revenues, and is now one of the pillars of Hawai'i's diversified agriculture.

I have been involved in aquaculture production and consulting since 1979. In 1983, with a partner, I started a farm (Hawaiian Marine Enterprises) to produce *ogo* (edible seaweed), which at that time was becoming scarce due to overharvesting and other factors. ADP staff helped us find a suitable farm site and provided a small proof-of-concept grant which helped us get established. We operated the farm profitably for 27 years, until our lease expired and the land was sold.

Although our farm prospered during its existence, ADP was not so fortunate. Due to budget cuts, the program was reduced and eventually folded into the Animal Industries division of DOA. The expertise of its current small staff is primarily in marketing, while its original, larger staff had expertise in biology, production technology, economics, and outreach as well as marketing. Its former status as a program directly under the department chair's office has also been diminished, reducing its influence within Hawai'i's government. In order to restore ADP's ability to help develop aquaculture as a beneficial and sustainable industry for Hawai'i, I believe that the following provisions are necessary:

- Increased staffing with broader expertise than currently exists in Animal Industries.
- Sustained multi-year funding for both staff and operations, as was the case in the 1980's and 1990's.
- Restoration of ADP's status as a program under the HDOA chair, or possibly as a separate division.

The \$500,000 annual appropriation proposed by the Senate Agriculture and Environment Committee in SB 753's SD1 version is probably sufficient to restore most of ADP's former functions – provided that this appropriation is **in addition** to the current minimal funding level, that funding is sustained on a multi-year basis, and that the funding is clearly directed towards restoring ADP's status, core staffing, and functions. I therefore strongly support the amendments suggested by the Hawai'i Aquaculture and Aquaponics Association in its testimony on SB 753 SD2:

SECTION 2. There is appropriated out of the general revenues of the State of Hawaii the additional sum of \$500,000 or so much thereof as may be necessary for fiscal year 2019-2020 and the same sum or so much thereof as may be necessary for fiscal year 2020-2021 for the revitalization of the aquaculture development program[.], as the lead agency for industry development within State government. Priorities for expenditure of these funds are strengthening staff expertise and capabilities in industry assistance for: information collection and dissemination, species and site selection, facilitation of permit acquisition, product and technical services marketing, and cost-sharing of targeted research and extension services with the University of Hawaii.

I hope, further, that the “institutional knowledge” of former ADP management and staff will be sought in the effort to re-establish the program going forward.

With abundant sunlight and seawater, and continuing demand for seafood products, aquaculture has great potential for further growth in Hawai'i. Recognizing this potential, last year's Legislature appropriated funds for an aquaculture incubator at NELHA. Eventually the companies founded at the incubator will need to find suitable sites, obtain permits, raise capital, and transform pilot-scale operations into full-scale production facilities. An ADP that can assist them in this difficult transition will make it more likely that they will choose to locate their production facilities – and the associated jobs and revenues – within Hawai'i.

Thank you for the opportunity to testify on this important matter.

Sincerely,



Frederick M. Mencher

**SB-753-SD-2**

Submitted on: 3/13/2019 4:51:46 PM

Testimony for AGR on 3/15/2019 9:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
albert fung	Individual	Support	No

Comments:

I used to run the biggest aquaponics website in the state promoting self-sustainability. After many aquaculture and aquaponics programs, staff, and budget cuts eliminated many activities and supporting departments, I feel it has had an impact on the industry and economy.

**SB-753-SD-2**

Submitted on: 3/13/2019 3:59:26 PM

Testimony for AGR on 3/15/2019 9:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Darren Okimoto	Individual	Support	No

Comments:

Dear Chair Creagan, Vice Chair DeCoite, and Committee Members:

I submit this testimony as a private citizen in strong support of SB753 SD2, providing for the appropriation of funds for operational expenses for revitalizing the aquaculture development program within the Hawaii Department of Agriculture.

I serve as the Associate Director and Extension Leader of the University of Hawaii Sea Grant College. In the past our program was involved in a collaboration with the Aquaculture Development Program and received funding to provide statewide extension services to fish farmers. That service disappeared when the Aquaculture Development Program was eliminated. There is a critical lack out capacity in aquaculture extension services that could be alleviated by reviving the Aquaculture Development Program and supporting the needs of the aquaculture industry in the state.

For the reason above I urge you to support SB753 SD2.

Mahalo.

**SB-753-SD-2**

Submitted on: 3/14/2019 7:22:03 AM

Testimony for AGR on 3/15/2019 9:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Dale Sarver	Individual	Support	No

Comments:

I was actively involved with the ADP during my graduate school years at UH Manoa in the Mid-1970's. I started working in aquaculture and received my Ph.D. in marine biology and started working with the State developing the freshwater prawn industry. I started working for ADP as the first aquaculture extension agent in Hawaii. ADP was instrumental in supporting the commercial aquaculture industry in Hawaii. The scientists and early aquaculture developers spread the knowledge around the world and Hawaii became recognized as one of the leaders in this new field. It was unfortunate that Hawaii essentially lost the ADP. The aquaculture industry is now the fastest growing agricultural sector in no small part due to the contribution of the Hawaii ADP. There is vast potetial to expanding commercial aquaculture in Hawaii and the revival of ADP would be a powerful tool in this growth. Hawaii need to produce much more of its own seafood instead of importing almost all of it now.

**SB-753-SD-2**

Submitted on: 3/14/2019 8:58:40 AM

Testimony for AGR on 3/15/2019 9:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
J Ashman	Individual	Support	No

Comments:

Very strong support!

Thank you.

## decoite2 - Sara

---

**From:** Barry Kim <kimn001@hawaii.rr.com>  
**Sent:** Wednesday, March 13, 2019 3:50 PM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!



## **decoite2 - Sara**

---

**From:** BRENDA IOKEPA-MOSES <biokepamoses@gmail.com>  
**Sent:** Wednesday, March 13, 2019 1:01 PM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

## decoite2 - Sara

---

**From:** Christine Brammer <christine.brammer@gmail.com>  
**Sent:** Wednesday, March 13, 2019 1:06 PM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

**decoite2 - Sara**

---

**From:** donald sommer <desommer@yahoo.com>  
**Sent:** Wednesday, March 13, 2019 6:15 PM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

## **decoite2 - Sara**

---

**From:** Kylie Matsuda-Lum <kylie@kahukufarms.com>  
**Sent:** Wednesday, March 13, 2019 1:02 PM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

## decoite2 - Sara

---

**From:** Laila Jayyousi <kalua1@hotmail.com>  
**Sent:** Wednesday, March 13, 2019 1:07 PM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

## decoite2 - Sara

---

**From:** LUANA BECK <hooluanaranch@yahoo.com>  
**Sent:** Wednesday, March 13, 2019 2:40 PM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

## decoite2 - Sara

---

**From:** LUANA BECK <hooluanaranch@yahoo.com>  
**Sent:** Wednesday, March 13, 2019 2:40 PM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

## decoite2 - Sara

---

**From:** Melissa Moncata <lucky\_star96734@yahoo.com>  
**Sent:** Wednesday, March 13, 2019 1:02 PM  
**To:** AGRtestimony  
**Subject:** I Support SB 1150, SD 2

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee,

I support SB 1150, SD 2, which appropriates funds to the department of agriculture for feral pig control.

As feral pig populations continue to grow across the state, problems relating to feral pigs have drastically increased, affecting farmers and ranchers. Feral pigs destroy agricultural crops by digging up the soil for food and creating niche spaces for other non-native species. This will be an ongoing problem unless feral pig populations are reduced.

Thank you for the opportunity to testify on this measure.

Mahalo!



## decoite2 - Sara

---

**From:** Robert Paull <robertepaull@gmail.com>  
**Sent:** Wednesday, March 13, 2019 1:59 PM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

## decoite2 - Sara

---

**From:** Rodney & Karol Haraguchi <karol@haraguchiricemill.org>  
**Sent:** Wednesday, March 13, 2019 1:06 PM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

## decoite2 - Sara

---

**From:** Brett Schenk <brett@brettschenk.com>  
**Sent:** Thursday, March 14, 2019 12:49 AM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I have been a resident of Hawaii for thirty years and in my humble opinion the need for sustainable aquaculture has never been so urgent so as to to support the local economy and reduce greenhouse emissions. I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Unfortunately, in spite of a strong economy and record tourism, over the past few years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have leveled off. A revived ADP will help revive aquaculture's growth. If not now, when is the right time to do so?

Thank you for the opportunity to testify on this measure.

Mahalolo!

## **decoite2 - Sara**

---

**From:** Jari Sugano <ncsugano@gmail.com>  
**Sent:** Wednesday, March 13, 2019 7:12 PM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

## decoite2 - Sara

---

**From:** John Gordines <gordines@kauaiflowers.com>  
**Sent:** Wednesday, March 13, 2019 1:38 PM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

## **decoite2 - Sara**

---

**From:** Linda Gusman <lsgusman@yahoo.com>  
**Sent:** Thursday, March 14, 2019 8:50 AM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

## **decoite2 - Sara**

---

**From:** Linda Woodstock <dusty@woodstockhawaii.com>  
**Sent:** Thursday, March 14, 2019 8:19 AM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

## decoite2 - Sara

---

**From:** Megan Kono <megankono808@gmail.com>  
**Sent:** Wednesday, March 13, 2019 2:16 PM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!



## decoite2 - Sara

---

**From:** melvin kunitake <melvin.kuni@gmail.com>  
**Sent:** Wednesday, March 13, 2019 2:27 PM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

## decoite2 - Sara

---

**From:** Olelo pa'a Ogawa <glow@glowhawaii.com>  
**Sent:** Wednesday, March 13, 2019 3:24 PM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

## decoite2 - Sara

---

**From:** Randy Cabral <kaiwiki.1970@gmail.com>  
**Sent:** Thursday, March 14, 2019 6:54 AM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

## decoite2 - Sara

---

**From:** Ryan Rautureau <ryanrautureau@gmail.com>  
**Sent:** Thursday, March 14, 2019 7:02 AM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

## decoite2 - Sara

---

**From:** Sarah Styan  
**Sent:** Wednesday, March 13, 2019 4:09 PM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

## **decoite2 - Sara**

---

**From:** Susan Mulkern <susan@mulkernlandscaping.com>  
**Sent:** Thursday, March 14, 2019 10:14 AM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

## decoite2 - Sara

---

**From:** LUANA BECK <hooluanaranch@yahoo.com>  
**Sent:** Thursday, March 14, 2019 3:14 PM  
**To:** AGRtestimony  
**Subject:** I Support SB753, SD2

Dear Chair Creagan, Vice Chair DeCoite, & members of the committee:

I strongly support SB 753, SD 2 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

In recent years ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have levelled off. A revived ADP will help revive aquaculture's growth.

Thank you for the opportunity to testify on this measure.

Mahalo!

**SB-753-SD-2**

Submitted on: 3/14/2019 3:39:16 PM

Testimony for AGR on 3/15/2019 9:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Andrea Quinn	Individual	Oppose	No

Comments:

Dear Honorable Committee Members:

Please oppose SB753 unless you amend the bill to requiring environmental impact statements for any aquaculture facilities. Aquaculture has contaminated aquatic resources around the globe, and it would be just another assault against Hawaii's already-fragile marine ecosystem.

Thank you for the opportunity to present my testimony.

Andrea Quinn

Kihei