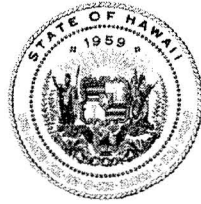


NEIL ABERCROMBIE  
GOVERNOR OF HAWAII



**STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES**

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

**Testimony of  
WILLIAM J. AILA, JR.  
Chairperson**

**Before the House Committees on  
WATER, LAND & OCEAN RESOURCES  
and  
AGRICULTURE**

**Friday, March 18, 2011  
10:30 AM  
State Capitol, Conference Room 325**

**In consideration of  
SENATE BILL 1511, SENATE DRAFT 1  
RELATING TO AQUACULTURE**

Senate Bill 1511, Senate Draft 1 amends subsection (b) of Section 171-59, Hawaii Revised Statutes (HRS), to increase the maximum term for aquaculture leases from thirty-five (35) to a maximum term of sixty-five (65) years; and provides aquaculture lessees in good standing the right of first refusal. The purpose of this bill is to encourage commercial aquaculture production in the State by providing favorable terms for leasing of public lands. The Department of Land and Natural Resources (Department) respectfully opposes this bill, but offers a suggested amendment below.

The amendments proposed by the bill affect direct negotiation leases that, pursuant to Section 171-59(b), HRS, already benefit by being exempt from the public auction process and the public participation requirement that would ordinarily be required for such leases. While this bill would provide a benefit to aquaculture operations, it does so at the expense of ensuring fair competition for the leasing of public lands by excluding other potential bidders seeking to participate in the public disposition process.

The Department acknowledges the need for long term leases in order for certain business ventures to be economically viable, however, notes that potential aquaculture lessees are in fact eligible for sixty-five year leases through the public auction process and other public processes, in addition to direct negotiation through subsection (a) of Section 171-59, HRS, which is a form of public process akin to requests for proposals. The Department has become aware through testimony on related bills that in some cases, a minimum 45-year term may be necessary in order for an aquaculture operation to qualify for certain federal financial assistance programs and to

**WILLIAM J. AILA, JR.**  
INTERIM CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

**GUY H. KAULUKUKUI**  
FIRST DEPUTY

**WILLIAM M. TAM**  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

amortize the cost of improvement over the term of the lease. In such cases, the Department believes that a more palatable compromise would be to limit the disposition to a maximum term of 45-years, with conditions noted below. Section 2 of the bill could be amended to read:

(B) Aquaculture operations, which may provide for a maximum term up to forty-five years, provided that such forty-five year term is required of the aquaculture operation in order to qualify for federal financial assistance and to amortize the cost of improvements over the term of a forty-five year lease; and

Moreover, the bill also provides for a right of first refusal in favor of the tenant which is essentially an option to extend a lease that can be exercised unilaterally by a lessee. Such options have a chilling effect on other prospective bidders' willingness to bid on the property. Many prospective bidders would be reluctant to invest the substantial time, effort and resources to prepare and submit a bid with the knowledge that the existing lessee can exercise his or her right and nullify the bid at any time. Rights of first refusal provide an unfair benefit to the current lessee by depriving persons awaiting the published termination of the lease a fair opportunity to compete for the use of those lands at public auction. That inherent inequity ensures lower bids and consequently less revenue to the State.

A right of first refusal clearly goes against all the provisions for fairness in the leasing of state land in Chapter 171, HRS, and inappropriately impinges on the Board of Land and Natural Resources' (Board) discretionary authority to control the use of state lands. When seeking public lands for private use, potential lessees are well aware of the benefits and drawbacks of leasing state lands as opposed to conducting their activities on private lands. First and foremost is the knowledge that those lands are public assets that must serve primarily the interests of the general public and the public trust purposes, and secondarily the needs of a private user.

The safeguards and terms for leasing public lands are codified in Chapter 171, HRS, to ensure transparency and fairness in the disposition of state assets. Paramount in that process is the need to ensure and maintain the State's ability to use its land resources when and as needed to meet all of the State's obligations and priorities as well as the greater public needs of all of Hawaii's residents. Fundamental to that responsibility is the preservation and protection of the discretionary authority of the Board to consider and determine the most appropriate use of state land at any given time, including when and if an ongoing use should continue. The Board's ability to fulfill its fiduciary obligations to promote all five public trust purposes equally should never be compromised by any erosion of this authority.



State of Hawaii  
DEPARTMENT OF AGRICULTURE  
1428 South King Street  
Honolulu, Hawaii 96814-2512  
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TESTIMONY OF RUSSELL S. KOKUBUN  
CHAIRPERSON, BOARD OF AGRICULTURE

BEFORE THE HOUSE COMMITTEES ON WATER, LAND & OCEAN RESOURCES  
AND AGRICULTURE

FRIDAY, MARCH 18, 2011  
10:30 A.M.  
CONFERENCE ROOM 325

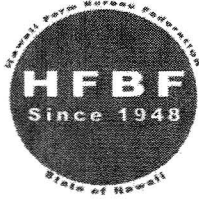
SENATE BILL NO. 1511 SD1  
RELATING TO AQUACULTURE

Chairpersons Chang and Tsuji and Members of the Committees:

Thank you for the opportunity to testify on Senate Bill No. 1511 that increases aquaculture leases from 35 to 45 years and allows a maximum term of 65 years for ventures in good standing for 10 years or more. The Senate Bill also provides lessees in good standing the right of first refusal for the property and allows for supportive activities that are relating to aquaculture. The effective date for this bill is July 1, 2050.

The Department supports the intent of the bill but defers discussion of lease terms to the Department of Land and Natural Resources (DLNR) which is the State's lease administering entity.

Thank you for your consideration of Senate Bill No. 1511 as the Department recognizes that we must continue to support aquaculture as the State pushes toward self-sufficiency.



**EAST OAHU COUNTY FARM BUREAU**

**45-260 WAIKALUA ROAD S 101 KANEHOE, HI 96744**

March 16, 2011

Representative Clift Tsuji, Chair, House Committee on Agriculture  
Representative Jerry L. Chang, Chair, House Committee on Water, Land, and Ocean  
Resources  
State Capitol Building, 415 S. Beretania St.  
Honolulu, Hawaii 96813

Dear Chairs Tsuji and Chang and Members of the Committees:

I am sending this testimony to express the **strong support** of the East Oahu County Farm Bureau for **SB 1511 SD1**, "Relating to Aquaculture." Aquaculture is one of the largest and fastest-growing sectors of Hawaii's diversified agriculture industry. Aquaculture and aquaponics farms tend to have substantial infrastructure requirements such as wells, tanks, raceways, pipes, and support structures which in turn require a substantial investment. In order to make this investment, aquafarmers need to have access to long-term loan capital, and need to know that they will be allowed to remain in place long enough to justify not only the financial investment, but the investment of personal time, labor, and ingenuity that is necessary to succeed in a challenging endeavor.

SB 1511 SD1 would increase the maximum lease terms for aquaculture and aquaponics farms, which would encourage investment in farm facilities and allow farmers greater access to Federal loan guarantees. It would allow established farms in good standing the right of first refusal, reducing the risk that farmers who have invested much of their lives in building successful businesses will see their life's labors taken away when their original leases expire. It also encourages more efficient use of resources by specifically permitting supportive activities such as the use of aquaculture effluents to produce secondary crops. We therefore support SB 1511 SD1, and encourage its passage.

Thank you for the opportunity to testify.

Sincerely,

Frederick M. Mencher  
for Grant Hamachi, President





THE HOUSE  
THE TWENTY-SIXTH LEGISLATURE  
REGULAR SESSION OF 2011

COMMITTEE ON AGRICULTURE  
Representative Clift Tsuji, Chair  
Representative Mark J. Hashem, Vice Chair

COMMITTEE ON WATER, LAND, & OCEAN RESOURCES  
Representative Jerry L. Chang, Chair  
Representative Sharon E. Har, Vice Chair

DATE: Friday, March 18, 2011  
TIME: 10:30am  
PLACE: Conference Room 325, State Capitol  
415 South Beretania Street

RE: Testimony In Strong Support of SB 1511 SD1 - Relating to Aquaculture

Aloha ChairS Tsuji and Chang, Vice Chairs Hashem and Har, and Committee Members,

The Hawaii Aquaculture and Aquaponics Association (HAAA), representing Hawaii's aquaculture and aquaponics industry statewide, strongly supports SB 1511 SD1, with only one minor suggested amendment.

Aquaculture is typically a high investment form of agriculture. Long term Federal and Federally guaranteed financing is available from the U.S. Department of Agriculture and the U.S. Department of Commerce for up to 40 year loans, but requires remaining lease terms to be in excess of the loan term by up to 50%, eg., a 60 year lease term remaining at time of 40 year loan, as explained in the Section 1. of this bill.

The right of first refusal would allow tenants in good standing the opportunity to renew their lease to continue their aquafarming operations. Without this opportunity to be able to renew leases, as allowed for terrestrial agriculture, future aquaculture investment and industry expansion will clearly be constrained. The right of first refusal is critical to developing and ensuring future sustainable seafood production for Hawaii that currently relies on imports for approximately 90 percent of its seafood supplies. At present, DLNR has means to terminate problematic tenants but no such mechanism to retain demonstrated good tenants. As such, under the current law, the tenants' years of investment and hard-earned site specific operational knowledge could be lost at the

auction block to an unknown real estate speculator from outside the State. This represents an unnecessary potential loss to the tenant, the tenant's employees and customers, the State, and the community, and is clearly a disincentive to continued tenant investment in leasehold improvements during the latter years of a DLNR lease.

The right of first refusal will provide the opportunity for Hawaii to keep and support its good aquaculture farmers, encourage their continued investment into this public resource, and ease the transition of such operations to successive generations of family members and employees who helped build and best know the characteristics of the aquafarm site and operations. SB1511 SD1 supports the long term future of the Hawaii aquaculture and aquaponics industry, and helps support a more sustainable seafood future for Hawaii.

The right to engage in supportive activities that are related to or integrated with an aquaculture operation simply makes good economic sense by allowing aquafarmers to develop additional revenue streams so as to maximize farm output and facilitate aquafarm profitability and economic sustainability. As the aquaculture industry evolves and as the global marketplace becomes ever more competitive, the aquaculture and aquaponics industry needs the flexibility to maximize its use and reuse of aquafarm inputs and to develop multiple profit centers. Aquaculture effluents can be used very successfully for aquaponics and the growing of plants, and in the process help the aquaculture farm meet current EPA and DOH discharge requirements. Some of these aquaculture effluent-fertilized plants could include *Azola* (duckweed), forage grasses, algae, or cellulosic crops which in turn could be fed to secondary animals, eg., ducks, poultry, and livestock, or used to produce biofuels to help power the aquaculture operation's water pumps and aeration devices. SB1511 SD1 provides the flexibility to allow aquafarms to pursue such innovative and environmentally appropriate activities.

The HAA's only suggested amendment is a matter of clarification in regards to page 3, line 21, as follows: "raising of animals grown on such forage." By adding the word "such", it clarifies that the intent of this statement is solely in regards to forage grown with aquaculture effluents.

Thank you for the opportunity to comment.

Respectfully submitted,



Ronald P. Weidenbach  
HAAA President



Food & Water Watch • 1616 P St. NW, Suite 300 • Washington, DC 20036  
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THE HOUSE

THE TWENTY-SIXTH LEGISLATURE  
REGULAR SESSION OF 2011

COMMITTEE ON AGRICULTURE  
Rep. Clift Tsuji, Chair  
Rep. Mark J. Hashem, Vice Chair

COMMITTEE ON WATER, LAND, & OCEAN RESOURCES  
Rep. Jerry L. Chang, Chair  
Rep. Sharon E. Har, Vice Chair

DATE: Friday, March 18, 2011

TIME: 10:30 am

PLACE: Conference Room 325, State Capitol  
415 South Beretania Street, Honolulu

RE: Testimony in Opposition to SB 1511 – Relating to Aquaculture

Aloha Chairs Tsuji and Chang, Vice-Chairs Hashem and Har and Members of the Committees,

**Food & Water Watch (FWW) thanks you for the opportunity to provide testimony and to voice our strong opposition to SB 1511 as it is written. SB 1511 would extend the maximum lease terms for all aquaculture operations from thirty-five to sixty-five years. This includes commercial finfish open ocean cage aquaculture operations. These large-scale operations are highly experimental. Long-term lease extensions could cost the State more in oversight and enforcement costs than it receives in lease payments, which for one existing operation is a mere \$2,100 per annum or 1% gross revenue, whichever greater.<sup>1</sup>**

FWW is a national consumer advocacy group with over 1,800 supporters in Hawai'i. We are also a founding member of the Pono Aquaculture Alliance, which is comprised of over thirty Hawai'i-focused organizations supporting responsible aquaculture practices. FWW advocates for safe, wholesome food produced in a humane and sustainable manner, and public rather than private control of water resources, including oceans, rivers and groundwater. We work with various community outreach groups around the world to create an economically and environmentally viable future. The FWW Fish Program

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<sup>1</sup> Board of Land and Natural Resources. "Request for approval of special installment agreement for payment of percentage rent under General Lease No. S-5721 to Kona Blue Water Farms, LLC, Kalaoa 1<sup>st</sup> through 4<sup>th</sup>, North Kona, Hawaii, Tax Map Key: 3<sup>rd</sup>/7-3-43; seaward of Kalaoa." August 28, 2009.



works specifically to promote safe and sustainable seafood for consumers, while helping to protect the environment and support the long term well-being of coastal and fishing communities. We have worked in Hawai'i for the past three years to promote public control of ocean waters and prevent the reckless expansion of the open ocean aquaculture industry.

We support responsible and culturally appropriate forms of fish farming, such as small scale land-based recirculating aquaculture systems, *loko i`a* (traditional fish ponds) aquaponics and some shellfish culture. We have serious concerns, however, about expansion of the open ocean aquaculture industry (OOA), which already has resulted in negative environmental and social impacts at just its present scale, which are discussed below. The cumulative impacts of these operations and the ability of the marine environment to handle them are largely unknown. **Currently, State agencies have insufficient funding and are not well coordinated to be capable of carrying out oversight of ocean aquaculture.** Also, there are not strong regulations in place to address cumulative impacts and prevent damage to the ocean, its wildlife and Hawai'i's traditional and cultural ocean users from this highly experimental industry. Rather than further entrench this industry through lease extensions, we urge the State to take a precautionary approach and maintain or decrease current lease lengths until these issues are adequately addressed.

**To address the issue of lease term extensions without impeding development of sustainable forms of aquaculture, SB 1511 could be amended to specifically exclude commercial finfish open ocean cage aquaculture operations from the general definition of "aquaculture" on page 2, line 21 through page 3, line 6.**

The following provides more information on community opposition to OOA, its environmental and social impacts, challenges in agency oversight, the need for more rigorous environmental review, and prior legislative efforts in the 2011 regular session pertaining to OOA.

### *I. Abundant Demonstration of Community Opposition to Open Ocean Aquaculture*

Since Hawai'i chose to allow leasing of ocean land for the purpose of commercial aquaculture, a number of companies have applied for or received leases. All have faced community opposition. To date, five farms – Ahi Nui Tuna Farms LLC, Ahi Farms, and Pacific Ocean Venture, Maui Fresh Fish, and Indigo Seafood – have been unsuccessful in obtaining the needed community support, permits and/or financing, though some are making a repeated attempt.<sup>23</sup> In 2002, a Native Hawaiian group filed a contested case

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<sup>2</sup> Report to the Twenty-Fourth Legislature of Hawai'i 2008 Regular Session. Implementation of Chapter 190D, Hawai'i Revised Statutes Ocean and Submerged Lands Leasing. Prepared by Department of Agriculture and Department of Land and Natural Resources. November 2007. Page 9-10.



against Ahi Nui Tuna Farms LLC. Two cases were also filed, though ultimately dismissed based on standing, against Hawaii Oceanic Technology, Inc.'s (HOTI) prospective *ahi* operation. Again, the cases were filed by Native Hawaiians, one on behalf of the Kanaka Council and another by Michael Lee, a cultural practitioner.<sup>4,5</sup> Additionally, due to lack of opportunity for involvement earlier in the permitting process, hundreds of people petitioned the Army Corps of Engineers to hold a public hearing regarding HOTI's Department of Army permit application. These requests, however, were denied.

After facing strong opposition from communities in Lanai, another company, Maui Fresh Fish, is shifting to an alternate location for its operation and is continuing the permitting process.

Kona Blue Water Farms (KBWF), an existing operation off of the Kona coast of Hawai'i Island, has met with numerous expressions of opposition over the years. The Kanaka Council, a Native Hawaiian organization, expressed frustration that Native Hawaiians were not adequately involved or consulted in the decision-making process for siting the KBWF facility which they saw is now located in a traditional fishing area directly off the coast of Kailua-Kona. This frustration led to a backlash in 2007 when KBWF applied to expand its cages that year, resulting in the filing of two contested cases. In response, the company decided to withdraw the application.<sup>6,7</sup>

These experiences are all relevant to highlight the public opposition in Hawai'i to the expansion of this industry.

## *II. Ecological Concerns with Open Ocean Aquaculture*

There are many serious issues related to OOA. Some of the primary concerns are: potential for pollution; effects on wild fish populations; effects on other marine animals, including mammals; and conflicts with the fishing and tourism.

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<sup>3</sup> Report to the Twenty-Sixth Legislature of Hawai'i 2011 Regular Session. Implementation of Chapter 190D, Hawai'i Revised Statutes Ocean and Submerged Lands Leasing. Prepared by Department of Agriculture and Department of Land and Natural Resources. December 2010. Page 6.

<sup>4</sup> Petition for contested case hearing, filed by Mike Lee, cultural practitioner with Board of Land and Natural Resources for its decision to award a Conservation District Use Permit to Hawai'i Oceanic Technology for 90 acres off of the North Kohala Coast, Hawai'i Island for the purpose of an open ocean fish farm. Filed on 23 October 2009.

<sup>5</sup> Petition for contested case hearing, filed by Kale Gumapac on behalf of Kanaka Council Moku 'O Keawe with Board of Land and Natural Resources for its decision to award a Conservation District Use Permit to Hawai'i Oceanic Technology for 90 acres off of the North Kohala Coast, Hawai'i Island for the purpose of an open ocean fish farm. Filed on 23 October 2009.

<sup>6</sup> "Kona fish farm facing expansion opposition." Associated Press, January 21, 2008. Available at: [savekauai.org/oceans/kona-fish-farm-facing-expansion-opposition](http://savekauai.org/oceans/kona-fish-farm-facing-expansion-opposition)

<sup>7</sup> Kona Blue Water Farms, LLC. "Final Supplemental Environmental Assessment for a Modification to Net Pen Designs within the Existing Production Capacity and Farm Lease Area for Kona Blue's Offshore Open Ocean Fish Farm off Unualoha Point, Kona, Hawaii." April 2009 at 3.





Some proponents have argued that discharge from aquaculture facilities will have minimal ecological impacts because it will be diluted throughout the ocean, but in reality there is still little knowledge about the long-term effects. The Marine Aquaculture Task Force, assembled by the Woods Hole Oceanographic Institution found that: "Little is known about the assimilative capacity of marine ecosystems for the wastes produced by aquaculture operations,"<sup>8</sup> A 2006 study of a the University of Hawaii/Cates open ocean facility found that waste from fish cages in deep ocean waters had "grossly polluted" the seafloor and "severely depressed" marine life at some sampling sites close to fish cages. It also found that these effects spread to sites 80 meters away over the course of 23 months.<sup>9</sup>

Additionally, operations may impact insular Hawaiian false killer whales (*pseudorca crassidens*), which are a candidate for the endangered species list.<sup>10 11</sup> Impacts on whales, dolphins, sharks, seals and sea turtles are also a concern,. One facility, KBWF is actually located within the Hawaii Islands Humpback Whale National Marine Sanctuary, and other proposed projects are located just outside its boundaries.

A recent study showed that the incidence of some species of sharks increased at Hawaiian OOA sites.<sup>12</sup> Sharks can be attracted to the fish in the cages, which can also be a threat to other wild fish or marine animals that congregate around the cages. They also serve as a threat to fishermen in the area. In 2005, KBWF killed a 16-foot tiger shark that was stalking one of its divers.<sup>13</sup> In September 2009, 500-1000 fish were reported to have escaped from KBWF's operation after a Galapagos shark bit through a cage.<sup>14</sup> The shark then entered the cage and had to be removed using a seine net.<sup>15</sup> Interactions with sharks at OOA sites is also culturally problematic due to the significant role they play for culturally practitioners as *`aumakua*.<sup>16</sup>

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<sup>8</sup> "Sustainable Marine Aquaculture: Fulfilling the Promise; Managing the Risks." Report of the Marine Aquaculture Task Force, Takoma Park, MD, p. 3, Jan 2007. Available at: [http://darc.cms.udel.edu/Sustainable Marine Aquaculture final 1 07.pdf](http://darc.cms.udel.edu/Sustainable_Marine_Aquaculture_final_1_07.pdf)

<sup>9</sup> Lee, Han W., et al. "Temporal changes in the polychaete infaunal community surrounding a Hawaiian mariculture operation." *Marine Ecology Progress Series*, 307:175-185, January 2006.

<sup>10</sup> Baird, Robin et al. "False Killer Whales (*Pseudorca crassidens*) around the main Hawaiian Islands: Long-term site fidelity, inter-island movements, and association patterns." *Marine Mammal Science*, vol. 24, iss. 3. January 2008. Pages 598-599.

<sup>11</sup> 50 Fed Register 70169-70187, (Nov. 17, 2010)

<sup>12</sup> Papastamatlou, Yannis P. et. al. "Site fidelity and movements of sharks associated with ocean-farming cages in Hawaii." *Marine and Freshwater Research*, vol. 61, iss. 12. December 13, 2010 at 1.

<sup>13</sup> Lucas, Carolyn. "Fish farm seeks second location." *West Hawaii Today*, May 6, 2006.

<sup>14</sup> Note from Office of Conservation and Coastal Land. Titled September 2009.

<sup>15</sup> E-mail communication. Neil Simms, President, Kona Blue Water Farms to Justin P. Viezbicke; William J. Walsh; Stephen M. Cain; and Nick Whitey. Subject: Galapagos freed. 15 September 2009.

<sup>16</sup> Minerbi, Luciano. "Sanctuaries, Places of Refuge and Indigenous Knowledge in Hawaii." In Morrison, R.J. and Linda Crowl (Eds.). (1994) *Science of Pacific Island Peoples Land Use and Agriculture Vol. 2*. Institute of Pacific Studies, University of the South Pacific. Page 108.



Ocean fish farms operations in other parts of the world provide an example of how aquaculture facilities can damage wild fish stocks if not carefully regulated. It has been well documented that when farmed fish escape, they can compete with wild fish for resources and habitat.<sup>17</sup> Despite industry advances, escapes continue to be a major issue.

Some recent examples of escapes include:

- From late December of 2008 through early January of 2009, a series of massive escapes in Chile – totaling more than 700,000 salmon and trout from various farms – prompted the leader of the Chilean Senate’s Environmental Committee to proclaim the incidents an “environmental disaster.”<sup>18</sup>
- In October of 2009, 40,000 fully-grown Atlantic salmon escaped from a net pen facility in British Columbia when a machine removing dead fish from the bottom of the pen broke a hole in the net; the company reportedly recovered less than 3% of the escaped fish at the time the article was written, though efforts to recover the fish were ongoing.<sup>19</sup>
- In October of 2010, 70,000 harvest-ready salmon escaped from a farm in Norway, resulting in a loss to the company of at least \$600,000; the same location had suffered from an outbreak of pancreatic disease resulting in high levels of mortality only months earlier.<sup>20</sup>

Disease transfer from farmed to wild fish is another risk. Wild pink salmon populations in British Columbia were depressed due to outbreaks of sea lice – marine parasites that cause viral or bacterial infection and ultimately death – increased incidences of which are associated with salmon farms.<sup>21</sup>

Although aquaculturists have argued that the industry can bring jobs and a local food source to Hawai`i, the actual job numbers are limited, as the industry is highly mechanized (for example, KBWF modified its net pens so that cleaning the cages would be easier and diver jobs could be eliminated). Moreover, the bulk of the product from OOA operations has been, and in the case of the proposed farms, is planned to be, exported to the U.S. mainland and/or to countries where it will fetch higher prices.

If local food and economy were a true priority for open ocean aquaculturists, they could focus on developing land based facilities, or traditional fish ponds, which many environmentalists and Native Hawaiians consider a more sustainable option.

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<sup>17</sup> Naylor, R., et al. “Fugitive Salmon: Assessing Risks of Escaped Fish from Aquaculture.” *BioScience*, 55: 427-437, 2005.

<sup>18</sup> Witte, Benjamin. “Thousands of salmon and trout escape in southern Chile.” *The Patagonia Times*, January 19, 2009.

<sup>19</sup> Lavoie, Judith. “40,000 fish escape farm.” *The Times Colonist*, October 24, 2009.

<sup>20</sup> Grindheim, Joar. “Costly salmon escape.” *IntraFish*, October 15, 2010.

<sup>21</sup> Krkosek, M., et al. “Declining wild salmon populations in relation to parasites from farmed salmon.” *Science*, 2007. Peeler, E.J., et al.





### *III. Consequences from Hawaiian Ocean Aquaculture and Inability to Regulate or Mitigate Them*

Recent information released by the State after the submission of a FOIA request highlighted additional flaws with KBWF's operation. Between 2005 and 2008, the company did little benthic testing. In their application for a modified permit in 2008, they provided only five samples from three sample dates, over three years. These included one sample for each site, with no replicates for any site sampled. The small sample size and lack of repetition call into question the accuracy of any analysis provided by the company regarding their impact on the benthos. In March 2007, the Office of Conservation and Coastal Lands (OCCL) notified KBWF that their current benthic monitoring system was unsatisfactory. They proposed a minimum of quarterly monitoring by drop camera, but it took over a year for the company to comply.<sup>22</sup>

KBWF has introduced antibiotics in Hawaiian waters at their site, without approval by Hawaiian officials. The permission to use an antibiotic was given to KBWF by officials at the United States Fish and Wildlife Service in Montana and approved by a federal agency, the Center for Veterinary Medicine at the Food and Drug Administration.<sup>23</sup> After the drug was applied, OCCL questioned whether these outside agencies knew they were approving extra-label use of the drug to be deposited directly into Hawaiian waters and not a land-based tank.<sup>24</sup>

The State also documented cases of deliberate interference with bottle-nosed dolphins at KBWF's operation, and according to the Hawai'i Department of Aquatic Resources, the animals have begun to exhibit "unnatural behaviors."<sup>25</sup>

These examples all serve to illustrate the complexity of regulating OOA. Clearly, in these instances, the state agencies have not had the resources to stop problems from occurring, and extending lease durations to sixty-five years will make it even more difficult for the State to avoid undesirable environmental consequences. To envision such a facility not being required to update its technology until the year 2075, regardless of what harm

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<sup>22</sup> Public comment. Dan Polhemus, Administrator, Division of Aquatic Resources, Department of Land and Natural Resources, to Sam Lemmo, Administrator Office of Conservation and Coastal Lands, Department of Land and Natural Resources. Review of Draft EA/CDUA HA-3443 for the Expansion of Kona Blue Water Farms Offshore Aquaculture Facility. 3 March 2008. Page 7.

<sup>23</sup> E-mail correspondence. November 2, 2007. Susan Storey, Aquaculture Drugs Team, FDA-CVM, Office of New Animal Drug Evaluation, Division of Therapeutic Drugs for Food Animals to Neil Anthony Simms, President, Kona Blue Water Farms. Subject: Florfenicol for your fish. On file with Office of Conservation and Coastal Lands, DLNR

<sup>24</sup> Letter dated November 15, 2007. Dan A. Polhemus, Administrator to Samuel J Lemmo, Administrator of Office of Conservation and Coastal Lands, DLNR. RE: Bacterial Outbreak at Kona Blue Offshore Fish Farm On file with Office of Conservation and Coastal Lands, DLNR.

<sup>25</sup> Memorandum. Dan Polhemus, Administrator, Division of Aquatic Resources and Jeff Walters, Co-manager of Hawai'i Humpback Whale National Marine Sanctuary to Sam Lemmo, Office of Conservation and Coastal Lands, Department of Land and Natural Resources. Subject: Kona Blue Water Farms open ocean fish farm, concerns regarding dolphin interactions. 20 February 2008.



occurs in the interim period, wholly fails to protect Hawaii's ecological, cultural and traditional ocean interests and ignores scientific progress.

#### *IV. Insufficient Environmental Review Process*

Issues regarding the environmental review process for OOA operations must be addressed before lengthening their lease times. Currently, companies are not always required to submit an Environmental Impact Statement (EIS). When applying for conservation district use, an aquaculture company must provide: "an environmental assessment or, if required, an environmental impact statement which shall be prepared and accepted in compliance with the rules adopted under Chapter 343."

According to HRS §343-2 an Environmental Assessment (EA) is a "written evaluation to determine whether an action may have a significant effect." An EIS is "an informational document prepared in compliance with the rules adopted under section HRS §343-6 and which discloses economic welfare, social welfare, and cultural practices of the community and State, effects of the economic activities arising out of the proposed action, measures proposed to minimize adverse effects, and alternatives to the action and their environmental effects."

Based on an EA, the agency, in this case the Department of Land and Natural Resources (DLNR) OCCL, determines whether there is a "finding of no significant impact," meaning, "a determination... that the subject action will not have a significant effect." If significant impacts are expected, the applicant must go on to prepare an EIS. This determination and the final approval or disapproval of an EA or EIS must take public comment into consideration.

Unlike an EA, an EIS: must explore alternatives to the proposed action; must evaluate the environmental setting in greater detail; must give an in depth discussion of the probable impacts, including cumulative impacts, direct and indirect impacts, and impacts on cultural practices and resources; must discuss the relationship between short-term use of the environment and long-term productivity; must detail unavoidable environmental effects; must discuss mitigation measures; and in the final EIS, must discuss how each comment was evaluated or give reasons why a specific comment was not accepted. Given the waste discharge, potential impacts on marine animals and fish stocks, and potential cultural ramifications, it is not reasonable to expect that any OOA facility would not result in "significant effects." Despite this, DLNR has not required all OOA applicants to conduct an EIS.

OCCL also needs to be held more accountable in the cases where it does require an EIS. In HOTI's case, OCCL approved the EIS despite finding that "there are still unresolved issues regarding the level of environmental and project disclosure, analysis regarding the engineering design of the proposed engine, fish feed components, lack of benthic studies in the project area, and lack of shark, marine mammal and endangered species plan."



An EIS should be required of every OOA project and each project should be more rigorously reviewed.

#### *V. Lack of Demonstrated Economic Benefits*

HB 568 states that “direct leasing of public lands had been a cornerstone for building a successful commercial aquaculture industry in the State,” but it does not discuss whether a successful aquaculture industry will **benefit** the State.

As ocean aquaculture is scheduled to increase in Hawai`i, projections for the amount of direct employment it will provide have decreased. Prior to modifications or expansions, Hukilau LLC and KBWF employed a total of 44 people, including jobs at both of their land-based hatcheries. After recently approved modifications are made to both the Hukilau and KBWF site, the industry estimates it will only be providing 39 jobs. This is despite anticipated increases in production of about 2.5 million pounds to 6 million pounds annually.<sup>26</sup> In 2010, Hukilau declared bankruptcy, putting their promise of jobs in question.<sup>27</sup>

Furthermore, it is questionable whether employment by the aquaculture industry is safe or stable. For example, a diver employed by KBWF filed suit against KBWF, alleging that it failed to provide a safe environment, ultimately leading to personal injury. According to the suit: “Kona Blue, acting through its managerial agents, was guilty of outrageous conduct owing to gross negligence, willful, wanton, and reckless indifference to the rights of others, and/or conduct even more deplorable...”<sup>28</sup>

In addition, the aquaculture industry in Hawai`i has not sufficiently proven that it can achieve profitability with existing operations filing for bankruptcy or transferring leases.

#### *VI. Other Legislative Efforts*

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<sup>26</sup> Information derived from the following sources: Consent to Assign General Lease No. S-5654, Cates International, Inc., Assignor, to Grove Farm Fish and Poi, LLC, Assignee, Oahu, Tax Map Key:(1)9-1-005:Seaward. Land Submittal to State of Hawai`i Department of Land and Natural Resources Land Division Board of Land and Natural Resources on 9 February 2007; Aquaculture Planning & Advocacy LLC. Final Environmental Assessment Proposed Expansion of Hukilau Foods Offshore Fish Farm, Mamala Bay, Oahu, Hawai`i. Prepared for Office of Conservation and Coastal Lands, Department of Land and Natural Resources. 24 July 2009. Page 8; Kona Blue Water Farms, LLC Final Supplemental Environmental Assessment for a Modification to Net Pen Designs within the Existing Capacity and Farm Lease Area for Kona Blue’s Offshore Open Ocean Fish Farm off Unualoha Point, Kona, Hawai`i prepared for Land Division, Department of Land and Natural Resources. Dated April 21, 2009. Page 17; Aquaculture Planning & Advocacy LLC. Final Environmental Assessment Proposed Expansion of Hukilau Foods Offshore Fish Farm, Mamala Bay, Oahu, Hawai`i. Prepared for Office of Conservation and Coastal Lands, Department of Land and Natural Resources. 24 July 2009. Page 8.

<sup>27</sup> Gomes, Andrew. “Hukilau Foods files for bankruptcy.” Star Advertiser. November 3, 2010.;

<sup>28</sup> Wagner v Kona Blue Water Farms LLC United States District Court for the District of Hawai`i No CVO9 00600 Filed 16 December 2009.

The controversy surrounding ocean aquaculture in Hawai'i is further evidenced by the introduction of two other bills this legislative session. HB 221 Relating to Mariculture lends support to the development of land-based, closed-loop re-circulating aquaculture systems, and would suspend the development, expansion or transfer of any existing permits of open water commercial finfish operations. SB 626 calls for tougher requirements for open ocean aquaculture, requiring that applicants submit a full EIS.

### **Conclusion**

Experiences with Hawaiian OOA operations indicate that the state of Hawai'i should proceed with extreme caution in regulating the industry's expansion. Opposition voiced by the local community, especially by Native Hawaiian groups, indicates that many constituents support this approach. We urge the legislature not to extend the maximum lease term, or include an option for renewal, as stated SB 1511, as that would allow the industry to completely circumvent meaningful oversight over the long term, and increase the State's difficulty in sufficiently regulating the industry and protecting natural and cultural resources.

Thank you for the opportunity to testify in opposition to the Bill, and in favor of a precautionary approach in protecting Hawai'i's ecological and cultural resources.

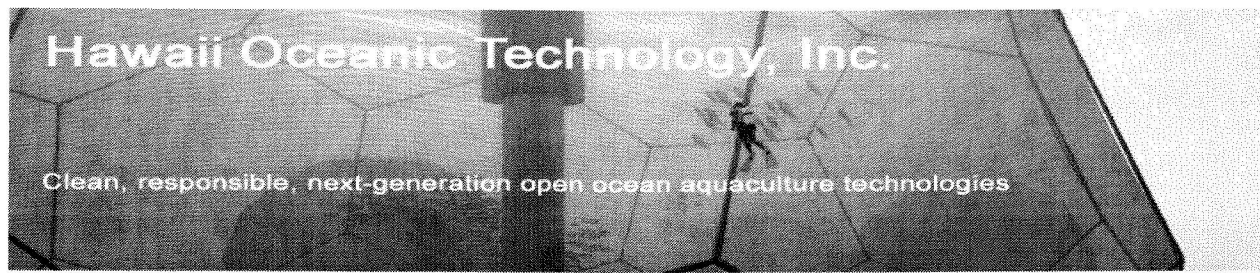
Sincerely,

A handwritten signature in black ink, appearing to read "Marianne Cufone".

Marianne Cufone, Esq.  
Director, Fish Program  
202.683.2511

A handwritten signature in black ink, appearing to read "Christina Lizzi".

Christina Lizzi  
Policy Analyst, Fish Program  
202.683.2495



March 15, 2010

TO: COMMITTEE ON AGRICULTURE, Rep. Cliff Tsuji, Chair, Rep. Mark J. Hashem, Vice Chair and  
COMMITTEE ON WATER, LAND & OCEAN RESOURCES, Rep. Jerry L. Chang, Chair, Rep. Sharon E. Har, Vice Chair

HEARING DATE: Friday, March 18, 2011  
TIME: 10:30AM  
PLACE: Conference Room 325, State Capitol  
415 South Beretania Street

RE: Testimony In Strong Support of SB 1511 SD1- Relating to Aquaculture

Aloha Chairs Tsuji and Chang, Vice Chairs Hashem and Har, and Committee Members,

Hawaii Oceanic Technology, Inc. strongly supports SB 1511 SD1. The USDA Rural Development loan programs offer Federal loans up to 40 years for rural business development, but require a remaining lease term to be at least 50% longer than the loan term, i.e., at least 60 years remaining on a lease term for a 40 year loan. This change is noted and accommodated in SB1511 SD 1 by increasing the direct aquaculture lease term to 65 years.

As the aquaculture industry evolves and as the global marketplace demands more seafood, the aquaculture industry needs the flexibility to maximize its potential. SB1511 allows aquaculture leases to permit such loans and receive project financing commensurate with other types of commercial activities.

Though DLNR has expressed concerns about the right of first refusal for tenants in good standing, we see this as absolutely critical for the long-term development of a viable aquaculture industry in Hawaii for our future sustainable seafood production. Aquaculture requires high up-front investment and long-term growth to be viable. Without the opportunity to be able to renew leases, as allowed for terrestrial agriculture, future aquaculture investment and industry expansion will be constrained. Currently DLNR can terminate problematic tenants or to even change the State's allowable purpose for a subject property, but does not currently afford DLNR the opportunity to retain tenants in good standing on their existing leased property beyond their initial lease term. The right of first refusal will provide this option such that Hawaii can keep and support its good aquaculture farmers encourage their continued contribution to the economy. SB1511 supports this important industry goal and helps support a more sustainable seafood future for Hawaii.

Thank you for the opportunity to comment.

Bill Spencer, President/CEO

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Thursday, March 17, 2011 1:15 PM  
**To:** WLOtestimony  
**Cc:** c  
**Subject:** Testimony for SB1511 on 3/18/2011 10:30:00 AM

Testimony for WLO/AGR 3/18/2011 10:30:00 AM SB1511

Conference room: 325  
Testifier position: oppose  
Testifier will be present: No  
Submitted by: Isaac Harp  
Organization: Coalition Against CO2 Dumping Inc.  
Address:  
Phone:  
E-mail:  
Submitted on: 3/17/2011

**Comments:**

On behalf of the Coalition Against CO2 Dumping, Inc., a grass-roots organization working to protect Hawaii's ocean environment since 2001. Our group has a membership of 416 members within the State of Hawaii.

We oppose this bill!

Mahalo,  
Isaac Harp  
President



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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Thursday, March 17, 2011 1:59 PM  
**To:** WLOtestimony  
**Cc:** §  
**Subject:** Testimony for SB1511 on 3/18/2011 10:30:00 AM

Testimony for WLO/AGR 3/18/2011 10:30:00 AM SB1511

Conference room: 325  
Testifier position: oppose  
Testifier will be present: No  
Submitted by: Suzanne Shriner  
Organization: Pono Kai  
Address:  
Phone:  
E-mail:  
Submitted on: 3/17/2011

**Comments:**

Offshore fish farming has been disastrous to wild fisheries in other regions and has put commercial fisherman out of business. Please do not take chances with our wild fisheries. Many of us depend on our catch to feed our families and pay our bills. The extended leases on these experimental fish farms could wreak serious harm to our inshore and offshore catches. The leases they currently have are long enough.

The jobs that the offshore fish farms are promising to provide do not in any way equal the number of commercial fisherman impacted by the farms. There is no equal trade-off. Please protect our native fisheries. Thank you for voting NO.



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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Wednesday, March 16, 2011 9:13 PM  
**To:** WLOtestimony  
**Cc:**  
**Subject:** Testimony for SB1511 on 3/18/2011 10:30:00 AM

Testimony for WLO/AGR 3/18/2011 10:30:00 AM SB1511

Conference room: 325  
Testifier position: oppose  
Testifier will be present: No  
Submitted by: Jacqueline Wikum  
Organization: Keoua Honaunau Canoe Club  
Address:  
Phone:  
E-mail:  
Submitted on: 3/16/2011

**Comments:**

Keoua Honaunau Canoe Club represents 150 paddlers on the Big Island of Hawaii. We stand opposed to Offshore Fish Farms that pollute our water and our horizon.

Please DO NOT extend the fish farms' leases on our beautiful oceans. Offshore aquaculture is experimental technology that our State does not have the resources to oversee. Sixty-five years is a very long time. We have yet to understand how they will impact our environment, and our wild fisheries. Not to mention our tourism dollars with their nets that are visible for miles.

Please vote NO.

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Thursday, March 17, 2011 12:12 PM  
**To:** WLOtestimony  
**Cc:**  
**Subject:** Testimony for SB1511 on 3/18/2011 10:30:00 AM

Testimony for WLO/AGR 3/18/2011 10:30:00 AM SB1511

Conference room: 325  
Testifier position: oppose  
Testifier will be present: No  
Submitted by: Ray Chaikin  
Organization: Individual  
Address:  
Phone:  
E-mail: r \_\_\_\_\_  
Submitted on: 3/17/2011

**Comments:**

Proponents argue that this extension is needed for corporations to qualify for more federal funding.

It is time to reevaluate the role of open ocean aquaculture in Hawai'i - not to extend its reach and encourage more taxpayer money and other assets be spent on it. Put residents first and vote against this bill.

I urge you to either vote against the bill or amend it to exclude "open ocean commercial finfish aquaculture" from those fish farms eligible for longer leases.

I oppose SB1511.

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Thursday, March 17, 2011 11:52 AM  
**To:** WLOtestimony  
**Cc:**  
**Subject:** Testimony for SB1511 on 3/18/2011 10:30:00 AM

Testimony for WLO/AGR 3/18/2011 10:30:00 AM SB1511

Conference room: 325  
Testifier position: oppose  
Testifier will be present: No  
Submitted by: Gwen Ilaban  
Organization: Individual  
Address:  
Phone:  
E-mail:  
Submitted on: 3/17/2011

**Comments:**

I oppose SB1511. This bill would increase leases for factory fish farms from 35 years up to 65 years. Proponents argue that this extension is needed for corporations to qualify for more federal funding.

Factory fish farming takes the industrial agriculture model - cramming thousands of animals into a confined environment and growing them to market size - and moves it into the ocean to raise fish. There is no separation between the farm and the natural environment. Additionally, these ocean feedlots rely heavily on imported feed, and the end product is shipped off-island or only found at high-end restaurants.

It is time to reevaluate the role of open ocean aquaculture in Hawai'i - not to extend its reach and encourage more taxpayer money be spent on it. Put residents and the environment first and vote against this bill.

I urge you to either vote against the bill or amend it to exclude "open ocean commercial finfish aquaculture" from those fish farms eligible for longer leases.

Mahalo!

### har3 - Megan

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Wednesday, March 16, 2011 8:52 PM  
**To:** WLOtestimony  
**Cc:** [c](#)  
**Subject:** Testimony for SB1511 on 3/18/2011 10:30:00 AM

Testimony for WLO/AGR 3/18/2011 10:30:00 AM SB1511

Conference room: 325  
Testifier position: oppose  
Testifier will be present: No  
Submitted by: Barbara Harris  
Organization: Individual  
Address:  
Phone:  
E-mail:  
Submitted on: 3/16/2011

Comments:  
Offshore Fish Farms are a bad idea. Extending their leases is a worse idea.

If you will not be around in 65 years, then I recommend you vote NO.

## har3 - Megan

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Wednesday, March 16, 2011 7:05 PM  
**To:** WLOtestimony  
**Cc:** '  
**Subject:** Testimony for SB1511 on 3/18/2011 10:30:00 AM

Testimony for WLO/AGR 3/18/2011 10:30:00 AM SB1511

Conference room: 325  
Testifier position: oppose  
Testifier will be present: No  
Submitted by: carl bernhardt  
Organization: Individual  
Address:  
Phone:  
E-mail:  
Submitted on: 3/16/2011

### Comments:

I am vehemently opposed to the inclusion of open ocean aquaculture in this bill, and the opening statement in Section 1. of this Bill is an outright lie with respect to this State's experience with open ocean aquaculture. Kona Blue Water has ceased operations and Hukilau Seafoods is in bankruptcy. There is overwhelming evidence that this industry is environmentally harmful, causing, inter alia, water pollution and die off of wild fish stocks. Why would you even consider opening Hawaii's pristine waters to such risk? I suspect it because the Legislature and Administration see an easy revenue stream for the State, and are turning a blind eye to the very real consequences of open ocean aquaculture. You have a fiduciary responsibility to assure that your actions do no harm to the environment and the public lands. If you insist on retaining ocean leases in this Bill, at a minimum there should be stringent, unwaiveable provisions restricting transfers of leases and terminations in the event of permit violations. There should also be provisions requiring the cost of cleanup be borne by the lessee with bonding mandatory.

Our pristine ocean is Hawaii's most precious resource. Please take no action that could harm it and the economic future of Hawaii.

## har3 - Megan

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Wednesday, March 16, 2011 4:04 PM  
**To:** WLOtestimony  
**Cc:** i  
**Subject:** Testimony for SB1511 on 3/18/2011 10:30:00 AM

Testimony for WLO/AGR 3/18/2011 10:30:00 AM SB1511

Conference room: 325  
Testifier position: oppose  
Testifier will be present: No  
Submitted by: Diane Kanealii  
Organization: Individual  
Address:  
Phone:  
E-mail: \_\_\_\_\_  
Submitted on: 3/16/2011

**Comments:**

I'm opposed to it because it would extend lease terms for open ocean fish farms from 35 to 65 years, even though such operations have been environmentally damaging and could have a negative impact on tourism and fishing. The tourist come here for the pristine waters and rugged, undeveloped coastline. It's a highly experimental industry that has generated little revenue for the state but has stretched the resources of permitting and oversight agencies, not to mention the tax credits extended to these developers. It would be premature to increase lease terms without any studies on the long term impacts of the industry and could leave the burden of clean up on the backs of the tax payers IF it can be cleaned up at all. The damage to the ecosystem could potentially be irreversible.

### har3 - Megan

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, March 15, 2011 2:47 PM  
**To:** WLOtestimony  
**Cc:**  
**Subject:** Testimony for SB1511 on 3/18/2011 10:30:00 AM

Testimony for WLO/AGR 3/18/2011 10:30:00 AM SB1511

Conference room: 325  
Testifier position: oppose  
Testifier will be present: No  
Submitted by: Robert Sterne  
Organization: Individual  
Address:  
Phone:  
E-mail:  
Submitted on: 3/15/2011

**Comments:**

I oppose HB 568 since there appears to be no practical reason to extend the leases beyond 35 years. The writer did long range planning for a Fortune 500 corporation for many years, and the farthest we could forecast with any degree of accuracy was 10 years. DLNR Chairman William Aila's opposing testimony deals with the fairness issues of allowing options to be exercised to the possible exclusion of new bidders, and I agree with him. In addition, the bill does not deal with the important issue of financing and transfer of leases to other corporations. Once a lease is issued, it should only be valid for the entity or corporation to whom it is issued, and not transferrable. This will eliminate the current world wide problem of large multinational corporations buying up established leases.