

LINDA LINGLE
GOVERNOR OF HAWAII



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

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KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

**TESTIMONY OF THE CHAIRPERSON OF THE
BOARD OF LAND AND NATURAL RESOURCES**

On House Bill 2828 – RELATING TO THE SUPER SUCKER

**HOUSE COMMITTEES ON
WATER, LAND, OCEAN RESOURCES AND HAWAIIAN AFFAIRS
AND
ENERGY AND ENVIRONMENTAL PROTECTION**

January 31, 2008

House Bill 2828 would appropriate funds to support operation of the “Super Sucker” device for control of invasive marine algae in Kaneohe Bay for one year, and would also appropriate funds to purchase one portable “Super Sucker Jr.” and support its operation for one year as well. The Department of Land and Natural Resources (Department) supports the intent of this bill, which is congruent with the Department’s objectives, but has concerns with the budgetary implications this bill will have on the Executive Supplemental Budget request. In addition, the Department notes that the proposed funding is not included in the State Multi-Year Financial Plan.

The Department appreciates the Legislature’s acknowledgment of the very serious threat that invasive marine algae pose to Hawaii’s coral reefs. It has taken many years of partnerships forged among researchers, resource managers, non-government organizations (NGOs), and community groups to reach the current high level of awareness in regard to this increasing threat to the State’s coral reefs. However, despite the large amount of time, effort and money put forth by the many different groups already dedicated to this problem, it has been a struggle to establish an appropriate level of response to this very prolific and destructive set of alien invasive species.

In 2003, Hawaii was confronted with the spectacular consequences of an unchecked alien invasive species when the freshwater weed *Salvinia molesta* overran Lake Wilson on Oahu. Government agencies, including city, state and federal military branches, joined forces with community members in an eradication effort that ultimately cost over \$1.3 million. State biologists were told at the time by experts that the situation was beyond reclaim, but faced with community pleas for action, coupled with outstanding dedication on the part of all parties involved, it was possible to not only remove the plant, but to eradicate it from Lake Wilson completely. Today, *Salvinia molesta* is no longer seen in the lake, which stands as a true success story in the battle against invasive species.

Meanwhile, on the State’s nearshore reefs, alien marine algae continue to spread.

Although there are many differences between marine alien algae and *Salvinia*, the resulting energy and focus of the response should be the same. Certain species of alien algae are more readily contained than others, and these species should be the first targets for control. Given the size of the marine environment, the scale and level of impact is also far greater for marine alien algae than it was for *Salvinia* in Lake Wilson. A cohesive program of action at the County, State and Federal level will be required to address this problem. The “Super Sucker” is one part of such an integrated solution.

The Department has been a partner in the “Super Sucker” project from its conception. To date, this technology has been deployed in research and testing phases. The Department has now proven that the device is effective, and is ready to move towards its deployment in large scale management operations. There still remain a number of research questions surrounding the project, and the Department fully recognizes that multiple factors contribute to increases in marine algae and concurrent decrease in coral cover on many of Hawaii’s reefs, but still feels that this project should move into full time deployment at the earliest available opportunity. If the Department waits until all of the contributing factors such as land-based pollution, nutrient enrichment and decreased herbivory are clarified and resolved through detailed research, the loss of coral cover could be so severe that it would take hundreds if not thousands of years for our reefs to recover.

Testimony of The Nature Conservancy of Hawai'i
Supporting H.B. 2828 Making an Appropriation for the Super Sucker
House Committee on Water, Land, Ocean Resources & Hawaiian Affairs
House Committee on Energy and Environmental Protection
Thursday, January 31, 2008, 10:30AM, Room 312

The Nature Conservancy of Hawaii supports H.B. 2828 Making an Appropriation for the Super Sucker.

Alien algae are overgrowing and killing coral reefs in Hawai'i. The Super Sucker was developed by the State Division of Aquatic Resources (DAR), The University of Hawai'i (UH), and The Nature Conservancy (TNC) in 2005 to begin to address this critical threat. The Super Sucker is very effective at removing mass quantities of alien algae from heavily impacted reefs.

We also developed the Super Sucker Junior because the large size of the Super Sucker Senior make it impractical and/or unsafe to operate in many other shallower reef habitats currently being degraded by alien algae on O'ahu, Maui, Moloka'i and the Big Island.

Due to limited funding, we have been operating with an inexperienced crew from multiple partner agencies on an infrequent schedule. While this has allowed us to learn how to most effectively use these machines in portions of Kāne'ohe Bay and a few other locations, it has prevented us from attacking the problem at the scale at which it must be addressed to stop the spread of alien algae throughout the islands and restore impacted reefs.

With an initial investment of \$500,000, we will be able to operate Senior full-time, and clear several hundred tons of alien algae from the reefs of Kāne'ohe Bay. At this rate, we believe we will be able control alien algae in the north end of the bay, and stop the northward spread of algae to new reefs. We will also be able to determine how quickly a trained crew can clear entire reefs, and the rate at which algae re-grow when cleared over a large area.

With an initial investment of \$256,000, we will be able to operate Junior full time, and remove algae from impacted reef habitats that have not yet been addressed by Senior in Kāne'ohe Bay, Maunaloa Bay, Waikīkī, and priority sites on the island of Maui. In addition, another version of Junior is being developed for use in Hilo, and Mini Suckers are being tested by community members to remove alien algae from He'eia fishpond and Maunaloa Bay.

A combined budget as well as individual budgets for Super Sucker Senior and Junior are attached.

Attachment

BOARD OF TRUSTEES

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Super Sucker Senior and Junior Budget - Year 1

Salaries	Unit Cost	Total	Notes
Aquatic Biologist IV (SR22 Step E)	\$49,332		
Aquatic Biologist III (SR 20 Step E)	\$45,576		
Fishery Technician IV (SR13 Step C) 7 @ \$33,756	\$236,292		4 Sr, 3 Jr
subtotal		\$331,200	
Fringe (41.13%)			
Aquatic Biologist IV	\$20,290		
Aquatic Biologist III	\$18,745		
Fishery Technician IV (x7)	\$97,187		4 Sr, 3 Jr
subtotal		\$136,223	
Equipment			
Replacement pump	\$25,000		Sr only
25-foot escort boats with shared trailer (3 @ \$35,000)	\$105,000		2 Sr, 1 Jr
2 full size 4x4 trucks with tow hooks	\$70,000		1 Sr, 1 Jr
subtotal		\$200,000	
Supplies and Misc Costs			
Super Sucker, boat, truck repair & maintenance, gas	\$15,000		\$10k Sr, \$5k Jr
Computer (2)	\$4,000		
Field gear (scuba, GPS, safety gear, etc...)	\$15,000		
Training	\$4,000		\$2k Sr, \$2k Jr
HIMB dock fee	\$12,000		
subtotal		\$50,000	
Travel			
Transportation	\$1,000		
Per Diem	\$36,000		
subtotal		\$37,000	
Total		\$754,423	

Super Sucker Senior - Year 1

Salaries		Category Total
Aquatic Biologist IV (SR22 Step E)	\$49,332	
Aquatic Biologist III (SR 20 Step E)	\$45,576	
Fishery Technician IV (SR13 Step C) 4 @ \$33,756	\$135,024	
subtotal		\$229,932
Fringe (41.13%)		
Aquatic Biologist IV	\$20,290	
Aquatic Biologist III	\$18,745	
Fishery Technician IV (x4)	\$55,535	
subtotal		\$94,571
Equipment		
replacement pump	\$25,000	
25 ft escort vessels w/ shared trailer , 2 @ \$35,000	\$70,000	
Full size truck 4x4 w/ tow hook	\$35,000	
subtotal		\$130,000
Supplies Misc costs		
supersucker, boat, truck repair maintenance, gas	\$10,000	
Computer (2)	\$4,000	
Field gear (scuba, GPS, saftey gear, etc...)	\$15,000	
Training costs	\$2,000	
HIMB dock fee	\$12,000	
subtotal		\$43,000
Total Directs		\$497,503

Super Sucker Junior - Year 1

Salaries		Category Total
Fishery Technician IV (SR13 Step C) 3 @ \$33,756	\$101,268	
subtotal		\$101,268
Fringe (41.13%)		
Fishery Technician IV (x3)	\$41,652	
subtotal		\$41,652
Equipment		
25 ft escort vessel w/ trailer	\$35,000	
Full size truck 4x4 w/ tow hook	\$35,000	
subtotal		\$70,000
Supplies Misc costs		
boat truck repair maintenance, gas	\$5,000	
Training costs	\$2,000	
subtotal		\$7,000
Travel		
Maui	\$37,000	\$37,000
Total Directs		\$256,920

HB2828
TONY COSTA
HAWAII NEARSHORE FISHERMEN

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COMMITTEE ON WATER, LAND USE & HAWAIIAN AFFAIRS

Representative Ken Ito, Chair
Representative John Riki Karamatsu, Vice Chair
Representative Mele Carroll
Representative Michael Y. Magaoay
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Representative Scott K. Saiki
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COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Representative Hermina M. Morita, Chair
Representative Mele Carrol, Vice Chair

From: Tony Costa
Hawaii Ncarshore Fishermen
325 Puamamanc Street
Honolulu, Hawaii 96821
808-664-3513 Home
808-540-1308 Office

Re.: Testimony in SUPPORT of HB 2828
Date: Thursday January 31, 2008
Time: 10:30 a.m.
Place: Conference Room 312 State Capitol
415 South Beretania Street

Copies needed: 5

TESTIMONY

My name is Tony Costa and I am testifying on behalf of Hawaii Near Shore Fishermen, a loosely organized, tight-knit group of nearshore fishermen. Hawaii Nearshore Fishermen are in support of HB2828.

Hawaii Nearshore Fishermen encounter alien foreign introduced species of fish and algae that threaten habitat and native species every day. Of all the marine resource impacts that directly impact fish populations, diversion of fresh water, pollution, siltation, and harmful runoff, the introduced alien species of both fish and algae are encroaching a plague that is smothering our reef environment as we know it.

Recently, our divers on the West side of Oahu have encountered vast deserts where once there were plentiful fish grounds, having been replaced by new fields of *Avrainvillea amadepha* or Leather Mudweed.

HB2828
TONY COSTA
HAWAII NEARSHORE FISHERMEN

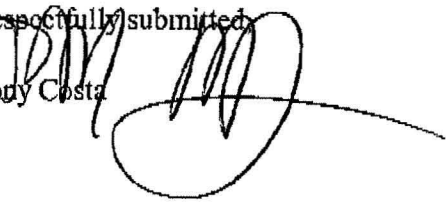
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Hawaii Nearshore Fishermen support this bill as it appropriate funds to initiate the program for machinery to mechanically suck away some of these unwanted species that are displacing our native fish habitat. If nothing else, at least we could physically begin to tidy up the underwater landscape until we really get a better grasp on this and the many other introduced and alien unwanted species by other more long term controls and management practices.

Please support the passage of HB2828.

~~Respectfully submitted,~~

Tony Costa



From: carl [mailto:mjellings@hawaii.rr.com]
Sent: Wednesday, January 30, 2008 11:31 PM
To: WLHtestimony
Subject: HB 2828

Carl P Jellings

HB 2828

Committee On Water, Land, Ocean Resources & Hawaiian Affairs

Date Thursday, January 31, 2008

Aloha Honorable Chair Ken Ito My name is Carl Pao Jellings expert in traditional fishing practices. My home is Waianae. But I would like to support HB 2828. Here in Waianae We have a similar problem with an invasive algae called Leather Mud Weed or Avrainvillea amadelpha this alien algae has spread as deep as 180 feet and is having similar impacts as is Kaneohe ,Our Ocean and it's indegeonous resources could always use carring support wherever and whenever possible this technique of alien algae extraction is a proven method ,that with Your support could continue to put this much needed effort where it would be most effective .

Mahalo for Your

Consideration Carl P Jellings

Representative Ken Ito, Chair
Representative Jon Riki Karamatsu, Vice Chair
Committee on Water, Land, Ocean Resources and Hawaiian Affairs
Representative Hermina M. Morita, Chair
Representative Mele Carroll, Vice Chair
Committee on Energy and Environmental Protection

Thursday, January 31, 2008
10:30AM, Conference Room 312

In Support of HB2828, Making an Appropriation for the Super Sucker

Chairs Ito and Morita, Vice Chairs Karamatsu and Carroll, and committee members. I am Roy Morioka and I thank you for this opportunity to testify in support of funding the “super sucker” in its effort to control the invasive algae that has established itself in Kaneohe Bay and altering the fragile and unique marine ecosystem there. Such mitigation and control efforts are essential to the health and protection of the native species that inhabit this bay, before irreversible damage occurs.

Additionally, I seek your attention to another introduced invasive species, the leather mudweed (*Avrainvillea amadelpha*) that is devastating weke nono (Pfeugers goatfish, sometimes erroneously referred to as weke ula) grounds off the leeward coast of Oahu. This invasive seaweed has blanketed the habitat preferred by the weke nono and is rapidly spreading its range from Kalaeloa (where it is thought to have been introduced via ballast water discharge) all the way now to Waianae as observed by fishermen from the area. Such displacement of essential habitat for the weke nono will eventually result in the loss of another prized food fish in Hawaii. It would be interesting to learn if the “super sucker” could be effective in mitigating this new invasive species before it expands its range any further.

Thank you for addressing the necessary funding to control the spread of alien algae in Kaneohe Bay and I truly hope that similar attention will be given the leather mudweed invasion off the leeward coast.

Sincerely Yours,
Roy Morioka