

DAVID IGE
GOVERNOR OF HAWAII



CARTY S. CHANG
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DANIEL S. QUINN
INTERIM FIRST DEPUTY

W. ROY HARDY
ACTING 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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

Testimony of
CARTY S. CHANG
Interim Chairperson

Before the House Committees on
ENERGY & ENVIRONMENTAL PROTECTION
and
WATER & LAND

Tuesday, February 10, 2015
11:00 AM
State Capitol, Conference Room 325

In consideration of
HOUSE BILL 437
MAKING APPROPRIATIONS FOR THE NATURAL RESOURCE GOALS OF THE
ALOHA+ CHALLENGE

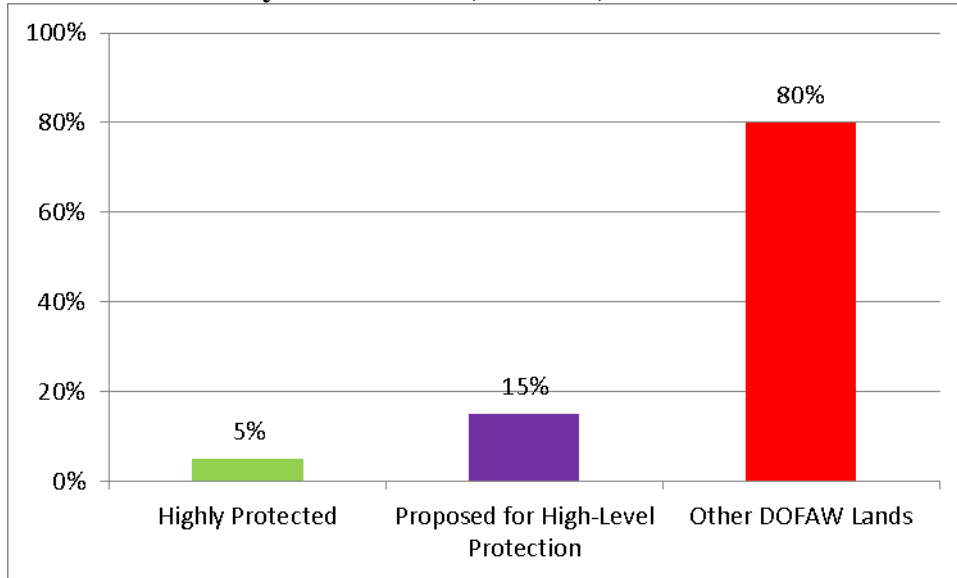
House Bill 437 proposes to authorize appropriations for watershed management; invasive species prevention, control, outreach, research, and planning; equipment for fire, natural disaster, and emergency response; and forest and outdoor recreation improvements. **The Department of Land and Natural Resources (Department) supports this measure provided that this appropriation does not adversely impact appropriations for other priorities in the Executive Budget request.**

Part II: Watershed Management

Protecting forested watersheds is one of the Department's top priorities, and an ongoing effort. With climate change accelerating a long-term decline in rainfall, forest protection has never been more urgent.

- Native forests absorb mist and fog, increasing water supply up to 50% more than rainfall.
- The availability and affordability of fresh water is so dependent on Hawaii's forests that economists estimate investments in forest protection have a 50:1 benefit to cost ratio.
- The net present value of the Koolau mountain forests for water supplies is \$8.5 billion.
- Currently only 5% of the Division of Forestry and Wildlife's lands are protected to the highest extent. We plan to increase this percentage to 20% over the next 10 years.

Division of Forestry and Wildlife (DOFAW) Lands

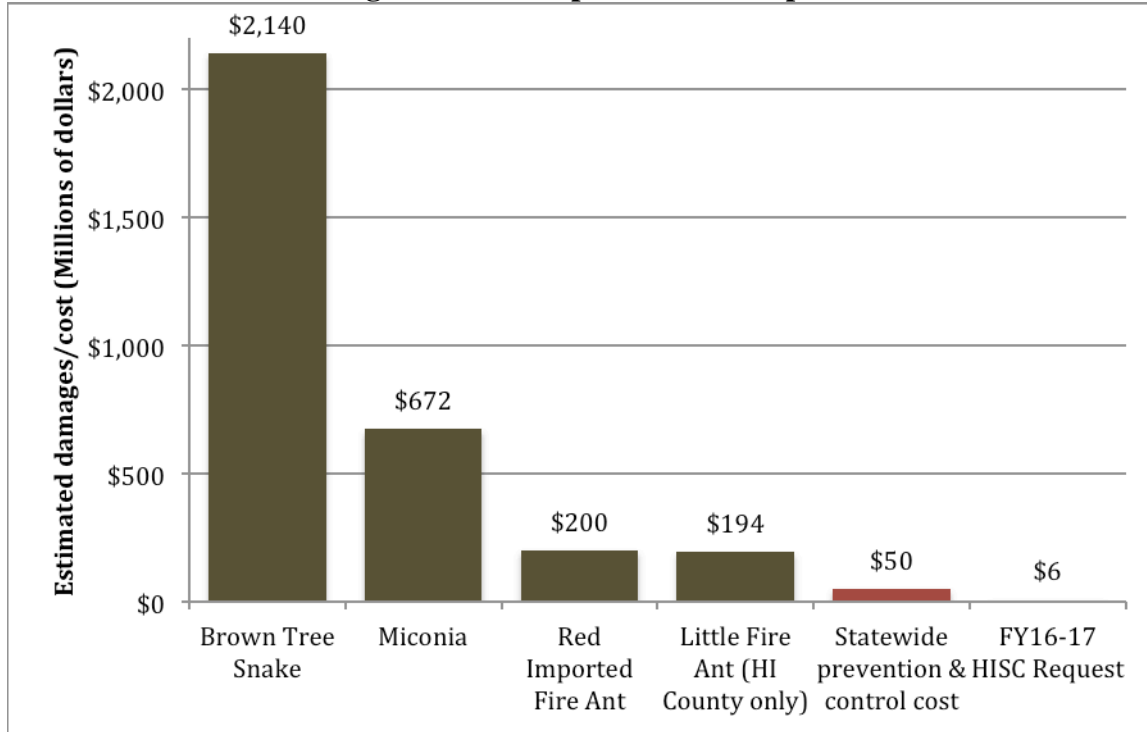


Part III: Invasive Species Control

The Department is the administrative host of the interagency Hawaii Invasive Species Council (HISC), which funds critical invasive species prevention, control, outreach, and research projects that fill gaps between existing agency programs or develop new tools and methodologies.

- In Fiscal Year 2015, the legislature provided \$5,750,000 to the HISC, supporting 42 projects including the UH Invasive Species Committees, a little fire ant canine detection pilot program, interagency response to the coconut rhinoceros beetle infestation, and biocontrol research.
- FY16 funding is needed to continue these projects and support new research efforts.
- The Legislative Reference Bureau estimates that \$50,000,000/yr is needed to address invasive species in Hawaii.

Estimated economic damages from a sample of invasive species



Part IV: Fire, Natural Disaster, and Emergency Response Equipment

The Department is responsible for preventing and fighting wildfires, and responds to natural disasters from hurricanes to lava flows that threaten life and property.

- Hawaii is on par with the western states for percentage of land area burnt.
- The average annual number of fires that burn over 100 acres has increased five-fold in the past 40 years.
- Forestry crews helped clear fallen albizia trees from roadways after Tropical Storm Iselle.
- Funding will be used for brush trucks, weather stations, and personal protective gear.

Part V: Forest and Outdoor Recreation Improvements

The Department’s trails and access (Na Ala Hele) program connects residents and visitors to Hawaii’s natural areas and iconic scenery, yet is severely underfunded.

- Na Ala Hele maintains 124 trails and roads, totaling 855 miles statewide.
- There is a dramatic increase in visitation to recreational sites. For example, nearly 100,000 hikers per year visit Oahu’s Manoa Falls Trail and Maunawili Falls Trail.
- This funding is critical for improving the safety of trails and roads statewide, which degrade with overuse.



Testimony of the O'ahu Invasive Species Committee
Supporting H.B. 437 Making Appropriations for the
Natural Resource Goals of the Aloha+ Challenge
House Committees on Energy and Environmental Protection and Water and Land
Tuesday, February 10, 2015, 11:00AM, Room 325

The O'ahu Invasive Species Committee (OISC) supports H.B.437 that would provide funding to the Hawai'i Invasive Species Council, DLNR Watershed programs, forest fire and emergency response and outdoor recreation. Invasive species damage Hawai'i's agriculture and food security and the native forests that ensure Hawai'i's water supply. The funding from H.B. 437 will be critical to ensure that that incipient invasive species can be quickly controlled and that established invasive species can be successfully managed.

The O'ahu Invasive Species Committee works island-wide to remove incipient invasive species from O'ahu before they become so abundant that they begin to damage ecosystems. OISC employs 17 people that conduct early detection, systematically survey and remove incipient invasive plants, educate the public about how special Hawai'i's biota is and how to protect it and assist the Department of Agriculture to survey and control for vertebrates and invertebrates. We have benefitted from HISC funds for many years and we thank the Legislature for their continued support in the fight against invasive species. The state money OISC receives is highly leveraged with county and federal funds.

OISC has stopped the spread of miconia on O'ahu; since 2008 mature trees have declined to five or less each year. However in the past five years, new species such as Cape ivy and devil weed that are known to disrupt ecosystem function have been discovered. Little fire ant continues to spread and coconut rhinoceros beetle has arrived on O'ahu. Adequately funding the fight against invasive species so that state agencies and organizations like OISC can rapidly respond to new incursions will keep Hawai'i's unique biota intact for future generations and protect the natural resources on which Hawai'i's economy depends.

OISC is a partner organization of the Ko'olau and Wai'anae Watershed Partnerships and we recognize that healthy forests provide the ecosystem services on which Hawai'i citizens depend. OISC recognizes that the ability respond to natural disasters such as forest fires are also critical to forest health. We also support the funding for recreation in this bill as we believe it is important for Hawai'i's citizens to be able to connect with their forests.

Thank you for your support.

Sincerely,
The O'ahu Invasive Species Committee

The Friends of Hakalau Forest National Wildlife Refuge [support HB437](#)

The Hawaiian forest enriches our lives and sustains our environment. If you turn on your tap and abundant, clear water fills your glass, then you can thank the forest!

The Hawaiian forest canopy intercepts the rain and draws water from passing clouds. If the stream where you live runs clear, then you can thank the forest!

The multiple layers of vegetation reduce the erosive effects of falling rain and the complex root structure anchors the soil. If the nearshore reef where you surf, snorkel and fish is free of sediment, then you can thank the forest!

A vibrant, healthy forest plays an important role in the capture of atmospheric carbon, helping to offset the production of greenhouse gasses. If you are concerned about the consequences of global climate change then you can thank the forest!

The Hawaiian forest is a storehouse of biological treasures, with thousands of species found nowhere else on earth. This unique laboratory of evolution yields a wealth of scientific secrets. If you are inspired by the rich biodiversity in Hawaii, then you can thank the forest!

The Hawaiian forest is a source of spiritual renewal. Trails through our reserves, refuges, parks and other natural areas provide an opportunity to walk on the wild side. If you seek out special places to hike and enjoy Hawaii's unique natural environment, then you can thank the forest!

Visitors to Hawaii, in growing numbers, are searching for opportunities to experience the natural Hawaii. If you appreciate the role that ecotourism plays in our economy, then you can thank the forest!

In Hawaiian culture, the high elevation forest was the wao akua, the realm of the gods. It was here that early Hawaiians sought trees for canoes, birds for food and feathers, and plants for ceremony and medicine. Even today, the forest is revered for its beauty and its bounty, such as the elegant koa. If you appreciate the cultural significance of Hawaii's natural environment, then you can thank the forest!

Conserving Hawaii's forested watershed presents an enormous challenge. This legislation represents a major step in the right direction.

Testimony provided by Robert Shallenberger, VP, Friends of Hakalau National Wildlife Refuge



The Nature Conservancy, Hawai'i Program
923 Nu'uuanu Avenue
Honolulu, HI 96817

Tel (808) 537-4508
Fax (808) 545-2019
nature.org/hawaii

Testimony of The Nature Conservancy of Hawai'i
Supporting H.B. 437 Making Appropriations for the Natural
Resource Goals of the Aloha+ Challenge
House Committee on Energy and Environmental Protection
House Committee on Water and Land
Tuesday, February 10, 2015, 11:00PM, Room 325

The Nature Conservancy of Hawai'i is a private non-profit conservation organization dedicated to the preservation of the lands and waters upon which life in these islands depends. The Conservancy has helped to protect nearly 200,000 acres of natural lands in Hawai'i. Today, we actively manage more than 35,000 acres in 11 nature preserves on Maui, Hawai'i, Moloka'i, Lāna'i, and Kaua'i. We also work closely with government agencies, private parties and communities on cooperative land and marine management projects.

The Nature Conservancy supports H.B. 437 to provide funding support for forest management and invasive species programs.

Healthy Hawaiian forests that are not overrun by invasive species act like a sponge, collecting rain and moisture, slowly delivering fresh water into streams and aquifers, absorbing greenhouse gases, and reducing runoff and siltation into near shore waters. Hawai'i is already exhibiting all the telltale signs of climate change. UH's 2011 Rainfall Atlas catalogues a century of declining rainfall that is worse in recent decades. September 2014 was the second-hottest in Hawai'i since the 1940s. Three hurricanes took aim at Hawai'i last summer and Iselle, though downgraded to a tropical storm, hit Hawai'i island hard. Fallen albizia trees left Puna a quagmire of damaged houses, blocked roads and downed power lines. At the same time, native 'ōhi'a and koa forests in the area were virtually undamaged. These same native forests are also showing that they are better at capturing rain water and recharging aquifers than invasive species. Clearly, protecting and enhancing the health and function of Hawai'i's forests from the threats of invasive species, severe weather and fire is one of the most important and effective things we can do mitigate some of these impacts and ensure a stable environment.

Beyond Hawai'i's forests, invasive insects, diseases, snakes, weeds and other pests are one of the greatest threats to Hawaii's economy, agriculture, environment, and the health and lifestyle of its people. With favorable conditions and limited competition, non-native species find an easy environment in which to thrive here. A strong and consistent response is needed to stop vectors for malaria, dengue and other diseases; prevent pests that poison, bite, and sting; and protect local agriculture from insects and pathogens that cause major crop losses. The multi-agency Hawai'i Invasive Species Council (HISC) provides a comprehensive, statewide approach to invasive species policy and funding including prevention, early detection, control, research and education programs.

With dependable base funding, these programs take advantage of many millions of dollars of non-state funds and work by non-state personnel to help ensure the resilience, sustainability and continued health of our islands' natural environment, economy, and quality of life.

BOARD OF TRUSTEES

Mark E. Agne Paul D. Alston Alan H. Arizumi Christopher J. Benjamin Anne S. Carter Richard A. Cooke III
Peter H. Ehrman Kenton T. Eldridge Thomas M. Gottlieb James J.C. Haynes III Mark L. Johnson
Dr. Kenneth Y. Kaneshiro Eiichiro Kuwana Duncan MacNaughton Kathy M. Matsui Wayne K. Minami
A. Catherine Ngo James C. Polk Chet A. Richardson Jean E. Rolles Scott C. Rolles Crystal K. Rose
Dustin E. Sellers Dustin M. Shindo Nathan E. Smith Peter K. Tomozawa James Wei Eric K. Yeaman

Testimony of Alison Cohan
Supporting HB 437 Relating to Making Appropriations for the Natural Resource Goals of the Aloha+
Challenge
Committee of Energy and Environmental Protection
Committee on Water and Land
Tuesday, February 10, 2015, Rm 325, 11am

I strongly support H.B. 437 to appropriate funds for the natural resource goals of the Aloha+ Challenge. Increasing watershed protection, community-based marine management, invasive species prevention and control, and restoration of native species are all critical components to restoring Hawaii's native ecosystems, providing resilience to climate change, and ensuring access to clean and abundant water resources for the future.

A system of healthy forested watersheds that captures rain and cloud moisture and delivers it efficiently to aquifers and surface sources for subsequent consumption in our daily lives is absolutely critical for the health of Hawaii's residents and for the benefit of our state's economy. Several locations throughout Hawaii have recently experienced intense and ongoing drought -- climate change is likely to produce more severe storms but overall less rainfall, both causing increasing shortage of fresh clean water supplies while also increasing the negative impacts from flash flooding and extreme storms such as siltation, erosion, and sedimentation on our healthy coral reefs. We must protect and enhance the health and function of Hawaii's forests in order to be more resilient to these impacts, as well as the increasing and devastating impacts of invasive species and fire.

I respectfully ask for your support for HB 437. Mahalo for your consideration.

Aloha,

Alison Cohan
Wailuku, HI

EEPtestimony

From: mailinglist@capitol.hawaii.gov
Sent: Monday, February 09, 2015 8:02 AM
To: EEPtestimony
Cc: brenda.asuncion@gmail.com
Subject: *Submitted testimony for HB437 on Feb 10, 2015 11:00AM*

HB437

Submitted on: 2/9/2015

Testimony for EEP/WAL on Feb 10, 2015 11:00AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Brenda Asuncion	Individual	Support	No

Comments:

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

Do not reply to this email. This inbox is not monitored. For assistance please email webmaster@capitol.hawaii.gov



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



February 10, 2015

HEARING BEFORE THE
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
HOUSE COMMITTEE ON WATER & LAND

TESTIMONY ON HB 437
MAKING AN APPROPRIATION FOR THE NATURAL RESOURCE GOALS OF THE
ALOHA + CHALLENGE

Room 325
11:00 AM

Aloha Chair Lee, Chair Yamane, Vice Chair Lowen, Vice Chair Cullen and Members of the Committees:

I am Christopher Manfredi, President of the Hawaii Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,932 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.

HFB supports HB 437, which makes appropriations for the natural resource goals of the Aloha + Challenge.

HFB farmer and rancher members across the islands have been significantly impacted by a changing climate and its resultant reduced rainfall and subsequent availability of water resources. Moreover, HFB farmers and ranchers are continuing to battle the many destructive invasive species that plague our State. Although not specifically mentioned in the bill, we hope that the necessary resources will be allocated to assist Hawaii's farmers and ranchers by ensuring that these menacing invaders are kept out of our fields, pastures, and nurseries, preferably before they even get to the State.

We have noticed that there are other bills that would also allocate significant funding for invasive species control. Given finite resources, HFB trusts that due consideration of each of these proposals will be afforded and that an effort will be made to prioritize the needs and equitably allocate the available budgetary resources.

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



**Conservation Council
for Hawai'i**

Hawai'i's voice for wildlife

Kō Hawai'i leo no nā holoholona lōhiu



Testimony Submitted to the
House Committees on Energy and Environmental Protection and Water and Land
Hearing: Tuesday, February 10, 2015 11 am, Room 325

In Support of HB 437 Making Appropriations for the
Natural Resource Goals of the Aloha+ Challenge

Aloha. The Conservation Council for Hawai'i supports HB 437, which appropriates funds for the natural resource goals of the Aloha+ Challenge.

We urge the legislature to appropriate at least \$11 million dollars annually for watershed protection alone. This is a relatively small amount of funding for something as essential as water. The value of one watershed alone far exceeds the amount we are asking you to appropriate. We should also raise the price of water to include watershed management.

We also urge the legislature to appropriate a total of at least \$50,000,000 annually to address invasive species in Hawai'i as estimated by the legislative reference bureau study "Filling the Gaps in the Fight Against Invasive Species."

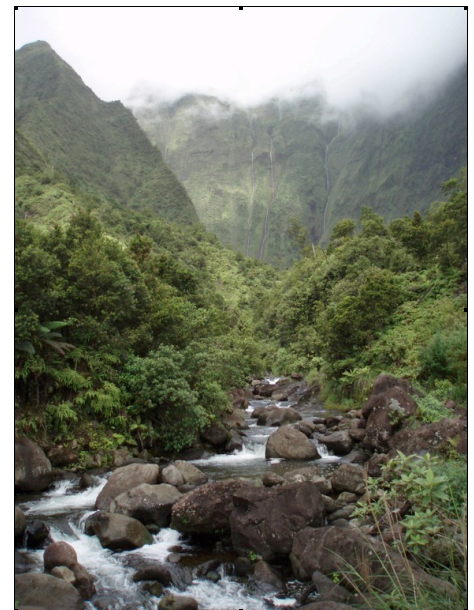
Millions of dollars are spent by large corporations fighting over water, yet the state protects only 5% of the essential watersheds we need to live on these islands. Perhaps it is time to get a little more serious about water security. We need to protect a lot more than 5 percent of our watersheds to do so.

These appropriations are among the most important investments we can make for our people, native wildlife, and economy. Watersheds are essential to supporting life on these islands, native wildlife and habitats, traditional and customary Hawaiian practices, recreational activities, and the economy.

Please kokua. Mahalo nui loa for the opportunity to testify.

Sincerely,

Marjorie Ziegler



Conservation Council for Hawai'i is a nonprofit, environmental membership organization dedicated to protecting native Hawaiian plants, animals, and ecosystems for future generations. Established in 1950 and based in Honolulu, CCH is one of the largest and most effective wildlife organizations in Hawai'i with more than 5,000 members and supporters, including concerned citizens, educators, scientists, government agencies, and elected officials.

Through research, education, service, organizing, and legal advocacy, CCH works to stop the destruction of native wildlife and wild places in Hawai'i.

Since 1973, CCH has served as the Hawai'i state affiliate of the National Wildlife Federation.

Telephone/Fax: 808.593.0255 | email: info@conservehi.org | web: www.conservehi.org
P.O. Box 2923 | Honolulu, HI 96802 | Office: 250 Ward Ave., Suite 220 | Honolulu, HI 96814

President: Hannah Kihalani Springer | Vice-President: Julie Leialoha | Treasurer: Bianca Isaki | Secretary: Wayne Tanaka
Directors: Rick Barboza | Ryan Belcher | Maka'ala Ka'auomoana | Koalani Kaulukukui
Executive Director: Marjorie Ziegler | Administrator: Jonnetta Peters





**Testimony of Hawai'i Green Growth
In Support of HB437 Making Appropriations
for the Natural Resource Management Goals of the *Aloha+ Challenge***

House Committee on Energy & Environmental Protection

House Committee on Water & Land

10 February 2015, 11:00am, Room 325

Audrey Newman

Hawai'i Green Growth

P.O. Box 535 Ho'olehua, Hawai'i 96729

Hawai'i Green Growth is a voluntary partnership of more than 70 state, county, federal, business, and non-governmental leaders from energy, food production, natural resources, waste reduction, planning, green jobs, and other sectors who have come together to support a shared statewide commitment and tangible actions toward sustainability and a model green economy.

Aloha Chairs Lee & Yamane, Vice Chairs Lowen & Cullen, and Members of the Committees:

Hawai'i Green Growth (HGG) strongly supports HB437, which makes appropriations for watershed management; invasive species prevention, control, outreach, research, add planning; equipment for fire, natural disaster, and emergency response; and forest and outdoor recreation improvements.

HB437 will help advance action on the natural resource management goals of *Aloha+ Challenge: A Culture of Sustainability – He Nohona 'Ae'ōia*, a joint leadership commitment to achieve six sustainability targets by 2030 in the areas of clean energy, local food production, natural resource management, solid waste reduction, smart growth and climate resilience, green jobs and education. The *Aloha+ Challenge* was unanimously endorsed by the 2014 Legislature (SCR 69) and signed by Hawai'i's Governor, Mayors and Office of Hawaiian Affairs. It was also internationally recognized as a model of integrated sustainability at the UN Conference on Small Island Developing States in Samoa.

HGG strongly supports invasive species management and watershed protection with annual funding to strengthen natural resource management, food security, and climate resilience:

- ◆ \$6M annually in general funds to maintain interagency project funding by the Hawai'i Invasive Species Council (HISC) to manage priority invasive species threats on all the islands. Invasive species are a cross cutting issue that threatens the health of Hawai'i's people, economy and ecosystems. They also reduce our ability to withstand impacts from climate change. State leadership and funding are essential for rapid, coordinated and cost-effective response to current and future threats. The recent spread of the Little Fire Ant is just one example of the severe consequences that invasive pest species can have on us all.
- ◆ \$7.5M annually to protect forests that recharge freshwater supplies, reduce climate change impacts such as flooding and other disasters, and provide other benefits to the health of Hawai'i's people and economy. Watershed protection and restoration significantly increases water availability by ensuring that our forests function to effectively absorb rain, deliver it into streams and aquifers, and decrease erosion and siltation, which also benefits our reefs and fisheries. This is especially urgent in the face of climate change and projected long-term decline in rainfall.

As a partnership representing Hawai'i's leaders in environment, food and energy, HGG asks for your support of **HB437**, which is an important investment in Hawai'i's future.

Mahalo,

A handwritten signature in black ink that reads "Audrey Newman".

Audrey Newman

Senior Advisor, Hawai'i Green Growth (HGG)

Bringing leaders together to achieve sustainability in Hawai'i & be a model for a green economy

<http://www.hawaiigreengrowth.org>