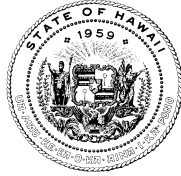


JOSH GREEN, M.D.  
GOVERNOR  
STATE OF HAWAII  
*Ke Kia'āina o ka Moku'āina 'o  
Hawai'i*

SYLVIA J. LUKE  
LT. GOVERNOR  
STATE OF HAWAII  
*Ka Hope Kia'āina o ka Moku'āina  
'o Hawai'i*



IKAIKA ANDERSON  
CHAIRMAN DESIGNATE, HHC  
*Ka Luna Ho'okele*

KATIE L. DUCATT  
DEPUTY DESIGNATE TO THE  
CHAIRMAN  
*Ka Hope Luna Ho'okele*

STATE OF HAWAII  
DEPARTMENT OF HAWAIIAN HOME LANDS

*Ka 'Oihana 'Āina Ho'opulapula Hawai'i*

P. O. BOX 1879  
HONOLULU, HAWAII 96805

TESTIMONY OF IKAIKA ANDERSON, CHAIRMAN-DESIGNATE  
HAWAIIAN HOMES COMMISSION  
BEFORE THE HOUSE COMMITTEE ON WATER AND LAND  
HEARING ON FEBRUARY 2, 2023, AT 9:30AM IN CONFERENCE ROOM 430

**HB 905, RELATING TO SUSTAINABLE GROUNDWATER YIELDS**

February 2, 2023

Aloha Chair Ichiyama, Vice Chair Poepoe, and members of the Committee:

The Department of Hawaiian Home Lands (DHHL) **supports with amendments** this measure which requires the University of Hawaii to develop a flexible model for setting sustainable groundwater yields that is inclusive of the needs of traditional and customary Native Hawaiian practices, climate change history and projections, and groundwater seepage at the shoreline.

The determination of Sustainable Yields (SY) for groundwater is a key responsibility of the Commission on Water Resources Management (CWRM). This kuleana that has profound impacts in determining how much water is available for development, including the protected public trust rights of DHHL to water that have been repeatedly affirmed by Hawaii Courts.

CWRM has since its reception repeatedly reduced its estimates of SY for aquifers around the state, including significant homesteading areas. For instance, the initial determination of SY for the Kualapuu Aquifer on Molokai was 7 million gallons per day (mgd), and it has been adjusted downward to 5 mgd. A recent study by the US Geological Survey indicated there may be less than 3 mgd actually available, and current SY methods do not account for climate change or the impacts of wells on groundwater dependent ecosystems (GDEs) like wetlands, fishponds, or limu beds. If water is allocated to private developments and SY is overestimated due to these issues, the consequences for future DHHL homestead development could be extremely significant.

In order to achieve the stated intent of this measure, we suggest the following amendments to Section 2(a) of the bill:

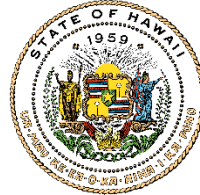
SECTION 2. (a) In coordination with the Commission on Water Resource Management, the University of Hawaii shall develop a flexible mode for setting sustainable

groundwater yields. The model shall ~~take into account~~ propose methods for determining the needs of groundwater dependent traditional and customary Native Hawaiian practices, climate change ~~history and~~ projects, and groundwater dependent ecosystems ~~seepage at the shoreline~~.

Thank you for your consideration of our testimony.

JOSH GREEN, M.D.  
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE  
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAII'  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
KA 'OIHANA KUMUWAIWAI 'ĀINA

P.O. BOX 621  
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DAWN N.S. CHANG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE  
MANAGEMENT

LAURA H.E. KAAKUA  
FIRST DEPUTY

M. KALEO MANUEL  
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

Testimony of  
DAWN N.S. CHANG  
Chairperson

Before the House Committee on  
WATER & LAND

Thursday, February 2, 2023  
9:30 AM  
State Capitol, Conference Room 430

In consideration of  
HOUSE BILL 905  
RELATING TO SUSTAINABLE GROUNDWATER YIELDS

House Bill 905 proposes to (1) require the University of Hawai'i to develop a flexible model for setting sustainable groundwater yields that is inclusive on the needs of traditional and customary Native Hawaiian practices, climate change history and projections, and groundwater seepage at the shoreline; and (2) appropriate funds to develop the model. **The Department of Land and Natural Resources (Department) supports this measure and offers the following comments and amendments.**

The Department's Commission on Water Resource Management (Commission) regulates groundwater in the State of Hawai'i using aquifer sustainable yields as the basis to manage withdrawals from aquifers. The Commission has an affirmative duty to protect traditional and customary Native Hawaiian rights as provided for in article XII section 7 of the Hawai'i State Constitution and in Hawai'i Revised Statutes 174-C section 101. The Hawai'i Supreme Court in its seminal opinion in "*Waiāhole P*"<sup>1</sup> further clarified that the protection of traditional and customary Native Hawaiian rights is a public trust purpose. Additionally, in the case of *Ka Pa'akai O Ka 'Aina vs. the Land Use Commission*<sup>2</sup>, the Hawai'i Supreme Court created an analytical framework for addressing the preservation and protection of customary and traditional native practices specific to Hawaiian communities.

Further, a preliminary United States Geological Survey (USGS) report indicates that mid-century rainfall and aquifer recharge will decrease, thus reducing the availability of fresh water in the

<sup>1</sup> 94 Hawai'i 97 (2000)

<sup>2</sup> 94 Hawai'i 31 (2000)

aquifer and consequently coastal discharge, which then has the potential to impact groundwater dependent ecosystems that support traditional and customary Native Hawaiian practices. For the Commission to adequately fulfill its constitutional duties and assess the Ka Pa'akai analysis, a better understanding of future projections of sustainable yield along with shoreline groundwater seepage impacts is critical.

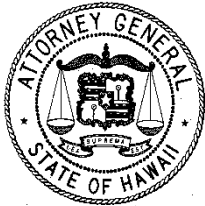
Finally, in our collective research efforts with the University of Hawai'i Water Resources Research Center and USGS, we note that water modeling can be an intensive process that requires proper data sets to develop. The Commission therefore recommends the following amendments:

~~SECTION 2.(b) The University of Hawaii, in consultation with the Commission on Water Resource Management, shall submit a report of its findings, recommendations, and model for setting sustainable groundwater yields, including any proposed legislation, develop a scope of work and cost to complete a flexible groundwater model that is inclusive of the needs of traditional and customary Native Hawaiian practices, climate change history and projections, and groundwater seepage at the shoreline.~~

(c) The University of Hawaii shall then submit this scope of work and cost to the legislature no later than twenty days prior to the convening of the regular session of 2024.

~~SECTION 3. There is appropriated out of the general revenues of the State of Hawaii the sum of \$ \_\_\_\_\_ or so much thereof as may be necessary for fiscal year 2023-2024 for the University of Hawaii to develop a flexible model for setting sustainable groundwater yields.~~

Mahalo for the opportunity to provide testimony in support with amendments.



**TESTIMONY OF  
THE DEPARTMENT OF THE ATTORNEY GENERAL  
THIRTY-SECOND LEGISLATURE, 2023**

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**ON THE FOLLOWING MEASURE:**

H.B. NO. 905, RELATING TO SUSTAINABLE GROUNDWATER YIELDS.

**BEFORE THE:**

HOUSE COMMITTEE ON WATER AND LAND

**DATE:** Thursday, February 2, 2023      **TIME:** 9:30 a.m.

**LOCATION:** State Capitol, Room 430

**TESTIFIER(S):** Anne E. Lopez, Attorney General, or  
Candace J. Park, Deputy Attorney General

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Chair Ichiyama and Members of the Committee:

The Department of the Attorney General provides the following comments.

The purpose of this bill is to require the University of Hawaii to develop a flexible model for setting sustainable groundwater yields inclusive of Native Hawaiian practices, climate change history and projections, and groundwater seepage at the shoreline.

Section 6 of article X of the Hawai'i State Constitution gives the Board of Regents of the University of Hawai'i "exclusive jurisdiction over the internal structure, management, and operation of the university." Section 6 further provides: "This section shall not limit the power of the legislature to enact laws of statewide concern. The legislature shall have the exclusive jurisdiction to identify laws of statewide concern." If the Committee decides to pass this bill, we recommend an amendment that adds a statement identifying this bill as a law of statewide concern.

Thank you for the opportunity to provide these comments.



# SIERRA CLUB OF HAWAI'I

## HOUSE COMMITTEE ON WATER AND LAND

February 2, 2022    9:30 AM    Conference Room 430

### In **SUPPORT** of **HB905**: Relating to Sustainable Groundwater Yields

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Aloha Chair Lowen, Vice Chair Poepoe, and Committee members,

On behalf of our 20,000 members and supporters, the Sierra Club of Hawai'i **SUPPORTS** HB905, which would help to provide critically needed information to uphold the public trust in our water resources, and ensure the future resiliency of our islands.

Water is our most precious resource – as has been made abundantly clear through O'ahu's water contamination crisis, and in the growing impacts of the climate crisis on rainfall patterns, watershed integrity, and the water cycle. Our constitution accordingly establishes water as subject to the public trust doctrine, and the State Water Code requires the state to assess the "sustainable yield" of our groundwater resources to ensure that groundwater withdrawals do not unduly compromise the water needs of established public trust purposes, and of our future generations.

Unfortunately, as recognized in this measure, our islands' often complex hydrogeology makes an accurate assessment of "sustainable yield" for groundwater difficult as a general matter, and the Water Commission's past practices in establishing sustainable yields have also largely failed to account for Native Hawaiian traditional and customary practices – a highly protected public trust purpose – as well as the projected impacts of climate destabilization. Notably, an accounting for the water needs of Native Hawaiian traditional and customary practices, such as kalo cultivation and the gathering of nearshore resources such as limu and fish, may be critical to perpetuating traditional ecological knowledge, practices, and values recognized by climate experts as the key to our islands' food and water security. Moreover, an accounting of sustainable yield that ensures the availability of sufficient groundwater for Native Hawaiian traditional and customary practices will also ensure that the resources and ecosystems these practices rely upon – including our streams, watersheds, and reefs – remain intact, providing an additional necessary foundation of security, resiliency, and self-sustainability for our Hawai'i nei.

Therefore, this measure's proposed research investments and directives to develop a more accurate and fuller accounting of our groundwater resources may be critical not only to upholding our constitutional and statutory obligations and commitments under the public trust doctrine and State Water Code, but also to ensuring a livable, resilient, and sustainable



# SIERRA CLUB OF HAWAI'I

home for ourselves, our keiki, and future generations.

Accordingly, the Sierra Club of Hawai'i respectfully urges the Committee to **PASS** HB905.  
Mahalo nui for the opportunity to testify.

**HB-905**

Submitted on: 1/31/2023 9:41:42 PM

Testimony for WAL on 2/2/2023 9:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Thomas Giambelluca	Individual	Comments	Written Testimony Only

Comments:

Modeling of groundwater recharge and sustainable yield is an important need for Hawai'i. Determining sustainable yield with attention fo the needs of Native Hawaiian practices, climate change, invasive species, and other influences is highly complex, requiring planning. Therefore, WRRC recommends that the bill be amended to provide support for developing scope of work rather than moving directly to the development of a new model.

This wording is suggested:

"The University of Hawaii shall provide a scope of work and cost estimate to develop a flexible ground water model that is inclusive of the needs of traditional and cusotomary Native Hawaiian practices, climate change history and projections, and groundwater seepage at the shoreline."

Thank you for the opportunity to provide our input on this measure.



**HB-905**

Submitted on: 2/1/2023 8:25:39 AM

Testimony for WAL on 2/2/2023 9:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Jane Au	Individual	Support	Written Testimony Only

Comments:

Our water resources must be protected. Water is finite and water in Hawaii today is facing serious threats. Climate change, military, increased consumption demand, extreme weather, drought, invasive species, etc, all factor into the actual sustainability of the water source into the future, yet are not compensated for in the current formula used to calculate the “sustainable yield”. We need a model for water yeild that is flexible and actually sustainable. I strongly support this bill, which proposes the University of Hawaii to develop a flexible model for determining a yield that can adjust to changing conditions and that is holistic and inclusive of these factors as well as the needs of traditional practices and fresh water dependent ecosystems.

We cannot allow for water practices of this scale that do not consider the whole picture of water sustainability. Without water we have nothing. It should be protected carefully and reserved, not used wildly.

**HB-905**

Submitted on: 2/1/2023 5:14:47 PM

Testimony for WAL on 2/2/2023 9:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
janice palma-glennie	Individual	Support	Written Testimony Only

Comments:

Aloha,

please support this and all measures that help protect our most needed and valued Public Trust Resource, water.

mahalo and sincerely.

Janice Palma Kailua Kona

**HB-905**

Submitted on: 2/1/2023 10:47:54 PM

Testimony for WAL on 2/2/2023 9:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Shauna Springer	Individual	Support	Written Testimony Only

Comments:

Kāko‘o wau! I support!