

JOSH GREEN, M.D.
Governor

SYLVIA LUKE
Lt. Governor



SHARON HURD
Chairperson, Board of Agriculture

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**TESTIMONY OF SHARON HURD
CHAIRPERSON, BOARD OF AGRICULTURE**

**BEFORE THE SENATE COMMITTEES ON AGRICULTURE AND ENVIRONMENT
AND WATER AND LAND**

**MONDAY, JANUARY 29, 2024
1:00 PM
CONFERENCE ROOM 229 & VIDEOCONFERENCE**

**SENATE BILL NO. 2155
RELATING TO AGRICULTURAL LAND USE POTENTIAL**

Chairs Gabbard and Inouye, Vice Chairs Richards, and Elefante, and Members of the Committees:

Thank you for the opportunity to testify on Senate Bill 2155. The bill requires the Department of Agriculture to contract a third-party entity to compile a report evaluating the agricultural land use potential of each parcel of state-owned lands greater than five acres, excluding commercial, residential, and Department of Education lands, and requires a report. The department respectfully offers comments.

It is our understanding that the master database of agricultural lands is maintained by the Department of Land and Natural Resources. Additionally, the features being identified may have multiple definitions in various jurisdictions. Definitions for each feature should be identified prior to bill passage to allow the creation of search criteria for consistent classification. The department requests \$1,000,000 to initiate this study, given the requested scope. Additionally, we strongly doubt it is feasible to complete the study by twenty days prior to the convening of the regular session of 2025. Given the timing of the funds becoming available to the department



and the time it takes to procure a consultant, we would have no more than a few weeks to produce the study. We anticipate that the study will take a minimum of eighteen months from notice to proceed. An alternative that may be less costly is requesting the study be done by the University of Hawaii.

Thank you for the opportunity to testify.

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

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



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

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DAWN N.S. CHANG
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AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
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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 Senate Committees on
AGRICULTURE AND ENVIRONMENT
and
WATER AND LAND**

**Monday, January 29, 2024
1:00 PM**

State Capitol, Conference Room 229 and Via Videoconference

**In consideration of
SENATE BILL 2155
RELATING TO AGRICULTURAL LAND USE POTENTIAL**

Senate Bill 2155 proposes to: require the Department of Agriculture to contract a third-party entity to compile a report evaluating the agricultural land use potential of each parcel of state-owned lands greater than five acres, excluding commercial, residential, and Department of Education lands; require a report; declare that the general fund expenditure ceiling is exceeded; and make an appropriation. **The Department of Land and Natural Resources (Department) offers the following comments.**

The Department recommends that the study proposed in this bill look beyond the land's agricultural potential and consider the water recharge needed for agricultural production. Abundant water comes from healthy forested watersheds. Thus, studies with scenarios where lands could be converted to agricultural production must consider a complex causal sequence where the corresponding loss of water recharge could diminish the agricultural potential of lands within a watershed.

The importance of forests for water has long been recognized in Hawai'i – expressed in the ancient Hawaiian proverb “*Hahai no ka ua i ka ululā`au*” - *the rain follows the forest*. Protecting forests has long been codified into Hawai'i's customs and laws.

In the 1800s, vast tracts of forest in Hawai`i were cleared for agricultural production and damaged or destroyed by herds of wild cattle, goats, sheep, and pigs. As a result, streams and springs dried up, limiting water availability. Subsequent droughts and extensive fires further threatened the islands' water supply. Without water, Hawai`i's agriculture – from lo`i kalo to sugar cane plantations – was threatened.

In 1876, Hawai`i's legislature passed "An Act for the Protection and Preservation of Woods and Forests" in response to a water crisis in Honolulu due to deforestation and resulting decrease in stream flow. The preamble to the Act stated: "... it is an established fact that the destruction of forests ... tends to diminish the supply of water..." The Act called for the construction of fences and barriers to prevent hooved animal trespass into forests important for water resources.

In 1893, Queen Lili`uokalani established the Bureau of Agriculture and Forestry for the "preservation of forests," among other purposes. Following this, Article XI of the Constitution of the State of Hawai`i calls for the protection of all natural resources held in the public trust.

From 1876 to 1910, the government and agricultural sectors recognized the importance of Hawaiian forests in providing water for urban consumption and irrigation. Forested areas were fenced, cattle removed, and trees planted; but efforts were not coordinated. Honolulu experienced many droughts, water-related epidemics, and two catastrophic urban fires, underscoring the need for an increased, safe, and reliable public water supply.

In 1903, at the behest of Hawai`i's agricultural industry, the Hawai`i Territorial Legislature passed Act 44 establishing the Board of Commissioners of Agriculture and Forestry, whose duties included the regulation of all land set aside as forest reserves. Their charge was, in part, "to devise ways and means of protecting, extending, increasing ... the forests and forest reserves ... for protecting and developing the springs, streams and sources of water ...".

The Commission created the Forest Reserve system in 1905 and set aside over a million acres of land for forest protection to secure water supplies. The agency fenced two million acres of forest land, removed tens of thousands of hooved animals, and set about replanting our forested watersheds – critical work that continues today.

In addition, if we have learned any lessons from Red Hill and the Maui Wildfires, is the vulnerability of our water resources. A well managed watershed that is protected from invasive plants and ungulates, will not only recharge our precious water resources but it would also provide necessary fire suppression. Protection and preservation of our water resources and protection of state lands is a public trust obligation that must be balanced with supporting sustainable agriculture.

Given the critical nexus between water, agriculture, and Hawai`i's public lands, DLNR recommends that the proposed study be conducted jointly by both DLNR and DOA and broadly consider agricultural, watershed, biodiversity, and recreational attributes of public lands. This study would consider the Agricultural Water Use and Development Plan and other water planning efforts – all of which recommend protection of existing forested watersheds and reforestation.

Rather than solely envisioning scenarios where land is converted to agriculture, this study should also consider converting land to forests and the corresponding benefits for water supplies that would support agriculture. Hawai'i's economic prosperity has always depended on the forests, and with climate change predicted to cause hotter and drier conditions, the lessons of the past can inform the plans for the future.

Mahalo for the opportunity to comment on this measure.



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January 29, 2024

HEARING BEFORE THE
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT
SENATE COMMITTEE ON WATER AND LAND

TESTIMONY ON SB 2155
RELATING TO AGRICULTURAL LAND USE POTENTIAL

Conference Room 229 & Videoconference
1:00 PM

Aloha Chairs Gabbard and Inouye, Vice-Chair Richards, and Elefante, and Members of the Committees:

I am Brian Miyamoto, Executive Director of the Hawai'i Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,800 farm family members statewide and serves as Hawai'i's voice of agriculture to protect, advocate, and advance the social, economic, and educational interests of our diverse agricultural community.

The Hawai'i Farm Bureau supports the intent of SB 2155 which requires the Department of Agriculture to contract a third-party entity to compile a report evaluating the agricultural land use potential of each parcel of state-owned lands greater than five acres, excluding commercial, residential, and department of education lands.

To meet the State's goal of doubling food production and to achieve our Farm to School and Farm to State benchmarks, it is important to identify and effectively utilize our most productive agricultural lands and protect their long-term agricultural use under the state and county land use regulatory systems. Accurate data will help optimize public and private investments in agriculture to meet Hawaii's food and agricultural sustainability goals.

However, agriculture has significantly evolved. Soil classification is no longer the only determinant of land good for agriculture. Greenhouses, hydroponics, aquaculture, and aquaponics are just a few of the many types of agriculture that can occur on *all* classes of land (A, B, C, D, E). Some of the best floriculture and hydroponic operations in Hawaii are on C, D, and E lands. The total environment, including rainfall amount and timing, day and night-time temperatures, wind, and humidity each contribute to whether a particular region is suitable for a specific crop. In many cases, the soil type and even the existing terrain are not determinative of whether farming can exist and thrive.

The state has not completed a comprehensive soil study or completed sufficient agricultural soil mapping in over fifty years. The first and only statewide soil mapping, classification, and characterization study was conducted by the Land Study Bureau of the University of Hawaii from 1965 through 1972. This classification system remains the master reference for the regulation of lands in the state agricultural land use district by the State and counties.

HFB suggests that the third-party entity that is selected to compile the report consider the work that has been done in the 2015 Statewide Agricultural Land Use Baseline and the 2020 Update to the Baseline Study. We also request that the report consider including the suitability of the Land Study Bureau soil overall (master) productivity rating system and other soil classification systems in the regulation of agricultural lands in the State and make recommendations for the use of soil classification systems for agricultural land use regulation.

We would like to clarify if the DOA is required to identify and evaluate state-owned conservation lands or just state-owned agricultural lands. The bill only excludes commercial, residential, and DOE lands.

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



Hawaii Cattlemen's Council, Inc.

COMMITTEE ON AGRICULTURE AND
ENVIRONMENT

Senator Mike Gabbard, Chair
Senator Herbert M. "Tim" Richards, III, Vice Chair

COMMITTEE ON WATER AND LAND

Senator Lorraine R. Inouye, Chair
Senator Brandon J.C. Elefante, Vice Chair

SB2155

RELATING TO AGRICULTURAL LAND USE POTENTIAL.

Monday, January 29, 2024, 1:00 PM
Conference Room 229 & Videoconference

Chairs Gabbard and Inouye, Vice Chairs Richards and Elefante, and Members of the Committees,

The Hawaii Cattlemen's Council **supports SB2155** which requires the Department of Agriculture to contract a third-party entity to compile a report evaluating the agricultural land use potential of each parcel of state-owned lands greater than five acres, excluding commercial, residential, and department of education lands

The DOA's State Ag Land Use Baseline Reports from 2015 and 2020 report decreases in agricultural land use, including pasture. The reasons for this include conversion to other uses, or inability to continue in agriculture successfully as a business. Our goal is to ensure that agricultural lands stay in agricultural production.

As we have unfortunately witnessed, land that is *not* managed is dangerous fuel for devastating fires. Lands that are well-managed and in use for agriculture provide ecosystem services such as fire fuel reduction and increased soil health. They also have people on the land who know it well, and potentially even water systems that can help the community beyond the scope of the agricultural use (such as fighting fires). Importantly, the business managing the land produces food on and brings in income to continue managing it.

We need more food production and more land management in the state. Evaluating the agricultural land use potential of state-owned lands will help get appropriate management on these parcels. Understanding what is available is a great first step in connecting land stewards with land.

Thank you for the opportunity to testify on this matter. The Hawaii Cattlemen's Council (HCC) is the Statewide umbrella organization comprised of the four county-level Cattlemen's Associations. Our



member ranchers represent over 60,000 head of beef cows; more than 75% of all the beef cows in the State. Ranchers are the stewards of over 750 thousand acres of land in Hawaii, or 20% of the State's total land mass. We represent the interests of Hawaii's cattle producers.

Nicole Galase
Hawaii Cattlemen's Council
Managing Director

LATE

Dear Committee on Water and Land,

My name is Lohelani Furtado-Gaspar and I am a resident of Hawai'i. I am writing this testimony in support of bill SB2155 which advocates for increased food production in the state of Hawaii. As a concerned resident I feel that this bill is a step in the right direction toward a self-sufficient food system for our islands.

As the bill states most of our food is from outside resources that contributes to the high cost of produce. If we were to increase our food productivity here on the islands it would help decrease the price of produce and hopefully decrease food scarcity amongst the community. I believe that what this bill proposes is a step in the right direction so that we as residents of Hawai'i know the potential that our land has for food production.

Mahalo.

Lohelani Furtado-Gaspar.