

JOSH GREEN, M.D.
Governor

SYLVIA LUKE
Lt. Governor



SHARON HURD
Chairperson, Board of Agriculture

DEXTER KISHIDA
Deputy to the Chairperson

State of Hawai'i
DEPARTMENT OF AGRICULTURE
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TESTIMONY OF SHARON HURD
CHAIRPERSON, BOARD OF AGRICULTURE

BEFORE THE HOUSE COMMITTEE ON AGRICULTURE AND FOOD SYSTEMS AND
COMMITTEE ON WATER AND LAND

WEDNESDAY, FEBRUARY 7, 2024
10:30 AM
VIA VIDEOCONFERENCE AND CONFERENCE ROOM 325

HOUSE BILL NO. 2638
RELATING TO AGRICULTURAL LAND USE POTENTIAL

Chairs Gates and Ichiyama, Vice Chairs Kahaloa and Poepoe, and Members of the Committee:

Thank you for the opportunity to testify on House Bill 2638. 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, there is concern that the study can be completed in time to submit a report twenty days prior to the convening of the regular session of 2025. Given the time 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

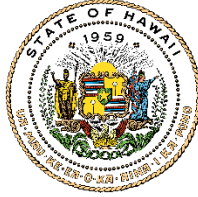
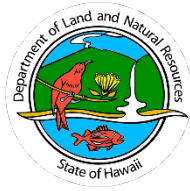


eighteen months from notice to proceed. An alternative that may involve less time and cost may be to defer the study to the University of Hawaii

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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DEAN D. UYENO
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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 Senate Committees on
AGRICULTURE & FOOD SYSTEMS
and
WATER & LAND

Wednesday, February 7, 2024
10:30 AM

State Capitol, Conference Room 325 and Via Videoconference

In consideration of
HOUSE BILL 2638
RELATING TO AGRICULTURAL LAND USE POTENTIAL

House Bill 2638 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 the 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 called for protecting 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 were removed, and trees were 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 regulating 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 ...".

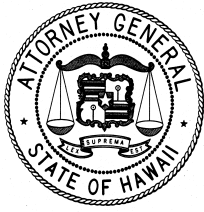
The Commission created the Forest Reserve system in 1905 and set aside over a million acres of land for forest protection to secure water supplies. The agency fenced two million acres of forest land, removed tens of thousands of hooved animals, and set about replanting our forested watersheds – critical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

In addition, if we have learned any lessons from Red Hill and the Maui Wildfires, our water resources are vulnerable. A well-managed watershed protected from invasive plants and ungulates will recharge our precious water resources and be naturally fire-resilient. Protection and preservation of our water resources and protection of state lands are public trust obligations 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 protecting existing forested watersheds and reforestation.

Rather than envisioning scenarios where land is converted to agriculture, this study should also consider converting land to forests and the corresponding benefits for water supplies supporting agriculture. Hawai`i's economic prosperity has always depended on the forests. 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.



**TESTIMONY OF
THE DEPARTMENT OF THE ATTORNEY GENERAL
KA 'OIHANA O KA LOIO KUHINA
THIRTY-SECOND LEGISLATURE, 2024**

ON THE FOLLOWING MEASURE:

H.B. NO. 2638, RELATING TO AGRICULTURAL LAND USE POTENTIAL.

BEFORE THE:

HOUSE COMMITTEES ON AGRICULTURE AND FOOD SYSTEMS AND ON
WATER AND LAND

DATE: Wednesday, February 7, 2024 **TIME:** 10:30 a.m.

LOCATION: State Capitol, Room 325 and Videoconference

TESTIFIER(S): Anne E. Lopez, Attorney General, or
Travis T. Moon or Bryan C. Yee, Deputy Attorneys General

Chairs Gates and Ichiyama and Members of the Committees:

The Department of the Attorney General provides the following comments.

The bill proposes to appropriate funds to the Department of Agriculture to contract a third-party entity to compile a report on certain state-owned agricultural lands.

To clarify which land is subject to the evaluation and report and harmonize the wording in subsections (a) and (b) of section 2 of this bill, we recommend the following technical amendments to the wording on page 2, lines 1-16, as follows:

SECTION 2. (a) The department of agriculture shall identify and evaluate each parcel of state-owned [~~lands,~~] land with an area of five acres or more, including land set aside under the Hawaiian Homes Commission Act, 1920, as amended, but excluding commercial, residential, and department of education lands, [~~but including lands set aside under the Hawaii Homes Commission Act, 1920, as amended,~~] to determine the agricultural potential of each parcel through the assessment of water availability and other physical elements associated with each parcel.

(b) The department of agriculture shall contract a third-party entity to compile a report comprising each parcel of state-owned [~~lands~~] land with an area of five acres or more, including land set aside under the

Hawaiian Homes Commission Act, 1920, as amended, but excluding commercial, residential, and department of education lands. The report shall evaluate each parcel for its agricultural potential for various agricultural crops and livestock production and shall include the following information for each parcel, as applicable: . . .

Thank you for the opportunity to comment on this bill.



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February 7, 2024

HEARING BEFORE THE
HOUSE COMMITTEE ON AGRICULTURE & FOOD SYSTEMS
HOUSE COMMITTEE ON WATER & LAND

TESTIMONY ON HB 2638
RELATING TO AGRICULTURAL LAND USE POTENTIAL

Conference Room 325 & Videoconference
10:30 AM

Aloha Chair Gates and Ichiyama, Vice-Chairs Kahaloa and Poepoe, 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 HB 2638, 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.