

JOSH GREEN, M.D.  
GOVERNOR

SYLVIA LUKE  
LT. GOVERNOR



WENDY GADY  
EXECUTIVE DIRECTOR

STATE OF HAWAII  
**AGRIBUSINESS DEVELOPMENT CORPORATION**  
HUI HO'OUULU AINA MAHIAI

TESTIMONY OF WENDY L. GADY  
EXECUTIVE DIRECTOR  
AGRIBUSINESS DEVELOPMENT CORPORATION

BEFORE THE BOARD OF LAND AND NATURAL RESOURCES

Friday, April 26, 2024  
9:00 a.m.

REGARDING MEETING AGENDA ITEM L-1  
RELATING TO APPROVAL OF DOLE FOOD COMPANY INC.'S SCHEDULE FOR  
THE REMOVAL OF WAHIAWA DAM (OA-0017)

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Chair Chang and Members of the Board:

Thank you for the opportunity to provide testimony before the Board of Land and Natural Resources (Board) regarding agenda item L-1 relating to approval of Dole Food Company, Inc.'s schedule for the removal of the Wahiawa Dam (OA-0017) (Dam). The Agribusiness Development Corporation (ADC) appreciates the process being undertaken. However, please be aware that the Hawaii Department of Agriculture (DOA), Hawaii Department of Land and Natural Resources (DLNR), and ADC are currently conducting due diligence for the acquisition of Lake Wilson, the Dam, and the Wahiawa Ditch System.

Public Act 218 of 2003 appropriated funds to upgrade the Dam's spillway and authorized DOA, DLNR, and ADC to acquire the Wahiawa Irrigation System which includes the Dam. ADC's responsibilities include Phase 1 and 2 environmental site

assessments. Phase 1 assessment has been completed, the Phase 2 assessment will begin shortly, and we hope to have due diligence completed by August.

It is our hope that the Board will take the ongoing due diligence and acquisition efforts into account as you consider the dam removal schedule. The Dam and irrigation system are absolutely critical to current and future agricultural activities in central Oahu.

Thank you for your consideration of our testimony.

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**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**  
KA 'OIHANA MAHI'AI  
1428 South King Street  
Honolulu, Hawai'i 96814-2512  
Phone: (808) 973-9600 FAX: (808) 973-9613

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

**BEFORE THE BOARD OF LAND AND NATURAL RESOURCES**

Friday, April 26, 2024  
9:00 a.m.

**REGARDING MEETING AGENDA ITEM L-1  
RELATING TO APPROVAL OF DOLE FOOD COMPANY INC.'S SCHEDULE FOR  
THE REMOVAL OF WAHIAWA DAM (OA-0017)**

Chair Chang and Members of the Board:

Thank you for the opportunity to provide testimony before the Board of Land and Natural Resources (Board) regarding agenda item L-1 relating to approval of Dole Food Company, Inc.'s schedule for the removal of the Wahiawa Dam (OA-0017) (Dam). The Hawaii Department of Agriculture (HDOA) understands the process in place includes a schedule and timeline that this submittal addresses. HDOA encourages the process be allowed to move forward through the conducting of due diligence that will lead to the acquisition of Lake Wilson, the Dam, and the Wahiawa Ditch System.

The water provided by the Dam is essential to the success of agriculture for the farmers, ranchers, and producers that it serves. HDOA greatly appreciates the Board's consideration to support food production that relies on the water that is delivered by the Dam and irrigation system.

Thank you for your consideration of our testimony.

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Email: [communications@ulupono.com](mailto:communications@ulupono.com)

BOARD OF LAND AND NATURAL RESOURCES  
Friday, April 26, 2024 — 9:00 A.M.

**Ulupono Initiative supports Agenda Item L(1), Approval of Dole Food Company Inc.'s Schedule for the Removal of Wahiawa Dam (OA-0017), Wahiawa, Oahu, Tax Map Keys, (1) 7-1-012:014, (1) 7-3-013:003, (1) 7-3- 012:002, and (1) 7-3-007:001.**

Dear Board of Land and Natural Resources:

My name is Micah Munekata, and I am the Director of Government Affairs at Ulupono Initiative. We are a Hawai'i-focused impact investment firm that strives to improve the quality of life throughout the islands by helping our communities become more resilient and self-sufficient through locally produced food, renewable energy and clean transportation choices, and better management of freshwater resources.

Ulupono supports critical agricultural infrastructure across the state. Affordable access to water resources remains paramount for Hawai'i's agricultural industry. The Wahiawa Irrigation System provides important water access to local producers in the region, directly supporting the State's commitment to double local food production.

Agricultural irrigation systems are an essential component of our state's efforts to achieve its goals of increasing local food production and food security. This is affirmed in the State Department of Agriculture's (DOA) 2019 Agricultural Water Use and Development Plan (AWUDP), which documents how Hawai'i's agricultural industry relies on these water systems to deliver inexpensive water to meet and expand agricultural production even during times of drought. Through this plan, the DOA has identified agricultural water systems as the most important infrastructural requirement needed to expand Hawai'i's diversified agriculture industry. However, most of the large-scale irrigation systems in the state are or will soon be more than 100 years old. While the price tag to repair and maintain irrigation systems may seem high, the cost to replace these plantation-era water systems would be in the billions of dollars. More importantly, continuing to let irrigation systems fall into disrepair puts Hawai'i's food security at risk, particularly the food security of the next generation who will be forced to adapt to a hotter and dryer planet.

*Investing in a Sustainable Hawai'i*

## **Climate Change in Hawai'i**

The importance of well-maintained agricultural water systems becomes even greater when the impacts of climate change on Hawai'i's food security are considered. In April 2021, Hawai'i became the first state to declare a climate emergency, when the State Legislature passed [Senate Concurrent Resolution 44 SD1 HD1](#), which also requested "statewide collaboration toward an immediate just transition and emergency mobilization effort to restore a safe climate."

The people of Hawai'i are seeing first-hand local impacts consistent with the effects of climate change: rising air temperatures; decreased rainfall and stream flow; increased rain intensity; increased frequency of drought; and increased frequency of powerful storms.

For example:

- Since 1950, temperatures across the Hawaiian Islands have been on the rise, ranging from increases of 0.2 to 0.4 degrees Fahrenheit per decade;
- The annual total precipitation measured at Hilo International Airport decreased by nearly 20 inches since 1950—the most among Hawai'i's four major airports;
- Rain intensity is becoming as much a destructive factor as drought, with the amount of rain falling in the very heaviest downpours from 1958 to 2007 increasing by approximately 12%;
- Even before last year's heartbreaking wildfires on Maui, the area in Hawai'i burned annually by wildfires had increased four-fold in recent decades, according to University of Hawai'i wildland fire researcher Clay Trauernicht; and
- Powerful storms are anticipated to become more frequent, as warmer climates tend to amplify existing weather patterns and variability, according to Hawai'i's state climatologist, Pao-Shin Chu.

These are each detrimental to local food production on their own; and yet, as an isolated island state we are also susceptible to climate change impacts far from our shores due to Hawai'i's continuing over-reliance on food from imports.

Irrigation plays an essential role in increasing food production and is an effective method of climate change adaptation. Globally, irrigated land represents only 16% of arable land but produces 44% of total crop production. For most crops, irrigation can double or triple crop yields. For example, irrigated crop yields for corn, soybean, and wheat are 165%, 75%, and 140% higher than rain-fed yields. In regards to climate change adaptation, irrigation systems mitigate the impact of decreasing rainfall, increasing frequency of drought, and increasing temperatures; and irrigation can help capture more rainfall during storm events, so that water can be used in the future.

According to research by The Nature Conservancy, climate change will bring increased moisture deficits across the United States. Nationally, the total area irrigated will need to increase by 11-54 million acres (an increase of 19-94%) by 2090 in order to maintain food production.



The DOA's AWUDP plan concludes: "The investment into these agricultural water systems is the key to provide adequate water to continue to grow diversified agriculture. As the saying goes, ...without water there is no agriculture..., which is the reason these agricultural water systems were originally constructed—and why they need to be maintained for another 100 years."

We strongly agree. For generations to come, local food production will depend on these systems and their ability to provide water for local farmers and ranchers. This represents a singular opportunity to make Hawai'i more self-sufficient and resilient.

Thank you for this opportunity to testify.

Respectfully,

Micah Munekata  
Director of Government Affairs