Agribusiness Development Corporation

Annual Report

Fiscal Year 2022

Submitted December 2022

A report to the Legislature of the State of Hawai‘i as required by Section 201-10 of the Hawaii Revised Statutes and Act 100, Session Laws of Hawai‘i 1999

Who is ADC?

The Agribusiness Development Corporation ("ADC") is a state agency created in 1994 by the Hawaii State Legislature and administratively attached to the Hawaii Department of Agriculture[1], to conserve and convert arable lands and their associated infrastructure that were formerly large mono-crop plantation lands into new productive uses. The agency's ultimate goal is to ensure that agricultural production and agribusiness ventures will be responsive to the current food and other agricultural needs of the State.

In 2005, the Hawaii 2050 Sustainability Task Force developed a broad, comprehensive plan that recognized local food production as a key element of food self-sufficiency and sustainability for the State. In his Sustainable Hawaii Initiative, Governor David Ige unveiled his 2016 roadmap, adopting the guiding principles of the Sustainability Task Force and narrowing his focus on five goals. Included among the five goals was the increase in local food production, a key element in our quest to prudently utilize our natural resources and to ensure that we today and our successors in the future can enjoy the beauty and bounty of this great state.

With the support of the Legislature, ADC's first major action in 1988 was the purchase of the nearly 100-year-old Waiahole ditch from the Waiahole Irrigation Company, Ltd., formerly the Waiahole Water Company, Ltd., a subsidiary of Oahu Sugar Company. Litigation over the propriety of the diversion and re-direction of water from the lush windward side of Oahu to the drier, but arable lands in central and leeward Oahu began in 1995 and continued for 15 years, until its final resolution in 2010. ADC continues to operate and manage the 26-mile-long ditch, which provides non-potable water to approximately 5,866 acres of agricultural lands.

In 2012, with a new administration, a new executive director, and an energetic and visionary board of directors, and again with the support and direction of the Legislature, ADC began an aggressive campaign to kick-start Hawaii's diversified agricultural production. At the same time, Dole Foods Company and Castle and Cooke Hawaii began to divest themselves of lands that were best suited for agricultural use, keeping those lands with optimum commercial value for commercial and residential development. Through the concerted efforts, support, and confidence of the administration, the

[1] Act 219 of 2022 transferred ADC's administrative attachment from the Hawaii Department of Agriculture to the Hawaii Department of Business, Economic Development, and Tourism, effective July 1, 2022.

Legislature, and the private sector, ADC began and continues to acquire the best arable lands from Waialua to Wahiawa and Waipio, enabling it to fulfill its mission of conserving and converting former sugarcane and pineapple fields into diversified crop production, and guaranteeing these prime lands will never be lost to casual farming or other non-agricultural uses. Since 2012, ADC has acquired approximately 3,371 acres of former sugar and pineapple lands in the area. A breakdown of the land purchases can be found in the appendix.

Earlier this year, Governor Ige signed into law Act 219 that approved the transfer of ADC to the state Department of Business, Economic Development and Tourism (DBEDT). We are grateful in partnering with DBEDT and the resources the department can provide in furthering our mission in assisting local agriculture and expanding local food production.

With the COVID-19 pandemic resulting in initial food shortages, the general public seems to have a better understanding and greater respect for local farmers. Local agriculture on ADC property will not only help us toward our goal of food sustainability but diversify our local economy and help ADC safeguard Hawaii's agricultural lands in perpetuity.

ADC's Mission

To acquire and manage, in partnership with farmers, ranchers and aquaculture groups, selected arable lands, water systems and infrastructure for commercial agricultural use and to direct research into areas that will lead to the development of new crops, markets and lower production costs.

What ADC Does for Hawaii

Rich agricultural lands are one of Hawaii's greatest assets. ADC's role is to protect the future of agriculture in Hawaii by facilitating its transformation from a dual crop economy of sugar and pineapple to a multi-crop industry. The breadth of ADC's responsibilities includes transitioning former plantation lands and water systems to diversified long-term agricultural use, initiating and developing diversified agriculture facilities, and finding innovative solutions for issues facing the agricultural industry today.

ADC's unique position enables it to coordinate Federal, State and private resources to optimize agribusiness opportunities. Its exemptions from Hawaii Revised Statutes Chapter 171 regarding land use, as well as Public Utilities Commission regulations and civil service laws, allow for greater flexibility in managing its programs. ADC fosters the growth of agricultural enterprises across the

state by providing affordable irrigation and long-term licenses or leases to tenants, which stimulates investment in agribusiness and enhances the viability of agriculture in Hawaii.

ADC has the power to achieve these goals through diverse efforts, such as:

- Acquiring and managing select arable agricultural lands, water systems and infrastructure.
- Acquiring agricultural conservation easements to protect certain agricultural lands.
- Organizing farmers and users into cooperatives that benefit from the participants' common interests and collective efforts.
- Assisting in acquiring or constructing processing and/or treatment facilities to enhance producers' abilities to access export or value-added opportunities.
- Informing, educating or training farmers on various industry practices such as food safety, production techniques and land uses.
- Coordinating and cooperating with other government agencies, educational institutions and private organizations to advance agriculture in Hawaii.
- Conducting research and demonstrative projects to facilitate the transfer of knowledge or adoption of technology.
- Conducting economic and feasibility studies relating to agriculture.

Organizational Overview

The ADC is headed by an 11-member board of directors consisting of four members representing counties, four at-large members, and three ex-officio members. The current members as of June 30, 2022 are:

Frederick Lau, Chair
City & County of Honolulu Member

Warren Watanabe, Vice Chair
At Large Member

Lyle Tabata
Kauai County Member

Vacancy
Hawaii County Member

James Gomes
Maui County Member

Glenn Hong
At Large Member

Lloyd Haraguchi
At Large Member

Karen Seddon
At Large Member

Phyllis Shimabukuro-Geiser
Ex-Officio, Board of Agriculture Chairperson

Mary Alice Evans
Ex-Officio, Department of Business, Economic Development & Tourism
Designated Representative

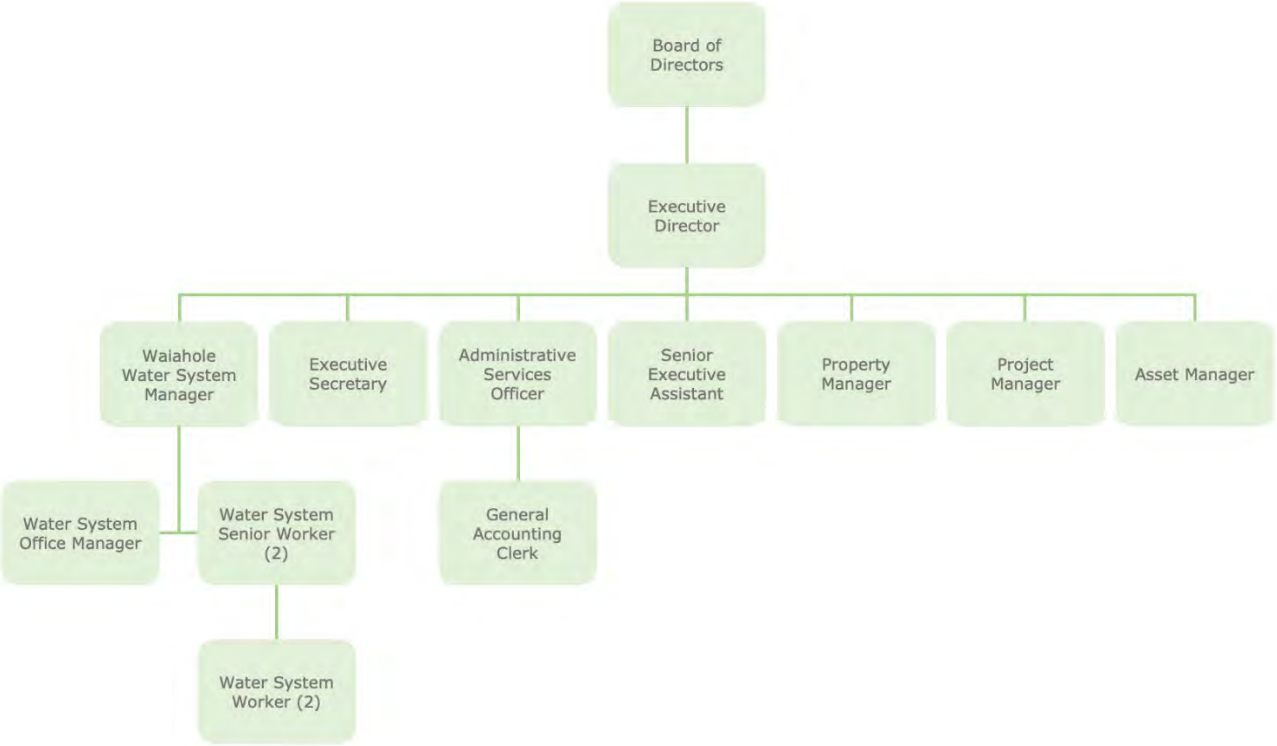
M. Kaleo Manuel
Ex-Officio, Department of Land & Natural Resources
Designated Representative

ADC Staff

The ADC Executive Director is James Nakatani.

A staff of 14 employees, including the Executive Director, support agribusiness development and maintain the Waiahole Water System. The following positions are yet to be filled:

1. General Accounting Clerk – position authorized effective 7/1/2018
2. Asset Manager – position authorized effective 7/1/2016



**proposed position organization chart*

FY2022 Financial Statement
Agriculture Development Revolving Fund

Revenue	**Budget ($)**	**Actual ($)**
Kekaha	508,463	520,489
Galbraith	$201,295	309,366
Navy 2468	915,449	915,449
Misc	-	5,384
East Kauai	195,970	243,840
Whitmore 24	54,902	63,421
Tamura Warehouse	17,424	18,876
Whitmore 256	111,565	116,090
Kalaeloa Rendering Plant	37,120	34,027
Mokuleia Aquaculture	913	933
Dole 73	2,612	4,835
Paalaa Uka	90,490	88,566
Other	-	255,575
OHA/DHHL		(289,656)
Total	**$2,136,203**	**$2,287,194**

Expenditure	**Budget ($)**	**Actual ($)**
Kekaha	505,812	470,092
Galbraith	678,039	818,488
Navy 2468	336,898	351,720
Misc 2		553
East Kauai	10,257	4,460
Whitmore 24	-	263,001
Tamura Warehouse	16,489	80
Whitmore 256	74,840	59,694
Paalaa Uka	16,009	9,319
Payroll	-	21,352
Admin-Fiscal Office	170,391	221,102
Insurance		-
Total	**$1,808,734**	**$2,219,861**
Revenue Less Expenditure	**$327,469**	**$67,333**

FY2022 Financial Statement
Waiahole Water System Revolving Fund

Revenue	**Budget ($)**	**Actual ($)**
Water Delivery	1,302,729	1,244,320.96
Investment Earnings	4,903	5,294
Total	**1,307,631**	**1,249,615**

Expenditure	**Budget ($)**	**Actual ($)**
Payroll & Benefits	502,020	516,877
General Administration	172,659	95,354
Equipment / Vehicles (new)	1,474	2,703
Insurance	5,674	8,298
Materials & Supplies	18,351	22,743
Repairs & Maintenance	12,688	27,107
G.O. Bond Repayment	422,325	422,774
Total	**$1,135,191**	**$1,095,857**
Revenue Less Expenditure	**$172,441**	**$153,758**

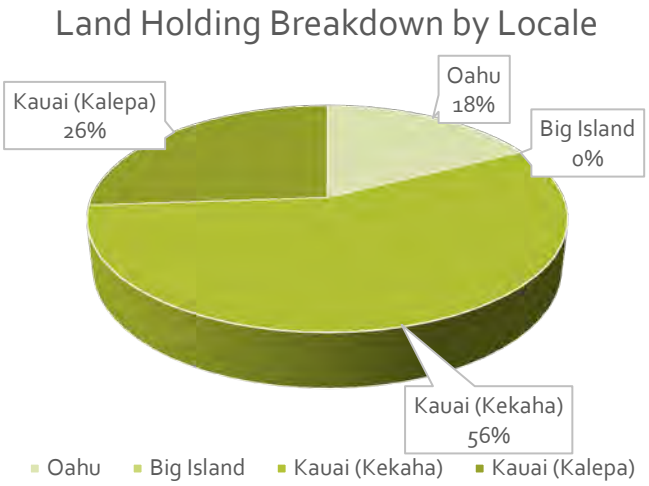
FY2022 Financial Statement
Agriculture Development & Research Fund

Revenue	**Budget ($)**	**Actual ($)**
Legislative Appropriation	1,104,521	$804,521
Restriction	-300,000	
Total	$804,521	$804,521

Expenditure	**Budget ($)**	**Actual ($)**
Kekaha	1,500	1,523
Galbraith	156,000	156,388
Tamura Warehouse	11,000	10,651
Whitmore 256	1,500	1,445
Payroll	575,000	572,387
Admin-Fiscal Office	62,000	62,013
Insurance	90	91
Total	**$801,090**	**$804,497**
Revenue Less Expenditure	**$3,431**	**$24**

Land Banking Overview

This graph illustrates the breakdown of land areas managed by ADC.



Central Oahu Lands

In 2012, the Trust for Public Land purchased 1,732 acres of land from the Galbraith Estate, near Wahiawa, and transferred the land to two Hawaii public agencies. ADC received 1,200 acres and the Office of Hawaiian Affairs (OHA) received the 500 acres surrounding Kukaniloko, the royal birthing site. Today, ADC owns or manages nearly 4,000 acres on Oahu. The properties can only be used for agriculture or agriculture-related activities.

Kalepa, Kauai Lands

In 2005, ADC gained control of nearly 6,000 acres of former Lihue Plantation land, now referred to as Kalepa.

Kekaha, Kauai Lands

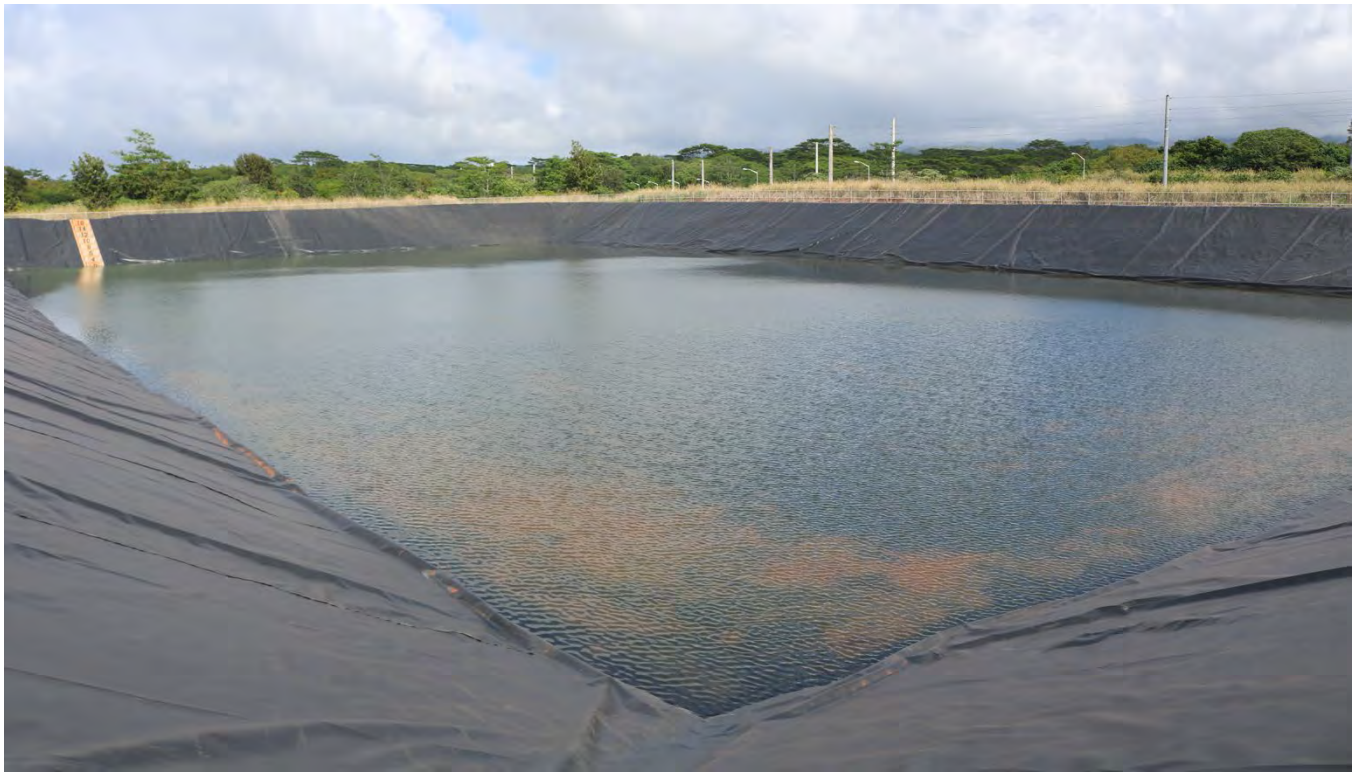
In 2002, with the closing of all Amfac/JMB sugar operations, ADC gained control of over 12,000 acres of land in the Mana plains area of Kekaha, followed in 2009 with the transfer of the Kokee Ditch System, the Kekaha Ditch System, two pump stations, two hydro-electric power plants, and an irrigation/drainage ditch system.

Development and Maintenance of Physical Agriculture Infrastructure Overview

FY 2022 saw ongoing planning and community engagement for the Wahiawa Recycled Water Irrigation Project and the Whitmore Community Food Hub Project. Staff received Board approval and funding for the purchase of three deep-water wells from Dole Food Company to supply irrigation water to ADC tenants and provide redundancy for ADC irrigation systems; acquisition efforts are ongoing. Additionally, ADC supported legislative efforts to fund the acquisition of the Wahiawa Reservoir, which would have included the Wahiawa Ditch system.

Property Management Activities

Much of ADC's efforts focus on property management – the processes and labor required to manage the life cycle of all acquired property including acquisition, control, accountability, responsibility, restoration, maintenance, utilization, and disposition. Property management encompasses both individual properties and the infrastructure that ties the region together. Adding to this complexity is the requirement that ADC farmers submit an approved conservation plan and meet current food safety and good agriculture practices (GAP) criteria. ADC effort to encourage tenant farmers to embrace GAP certification was paused at the start of the Covid-19 pandemic. However, efforts are again underway.



Oahu Lands Highlights

FY2022 Accomplishments

Galbraith & Wahiawa-Whitmore Area

Bell pepper crop at Galbraith.

1. The ADC selected farmers to develop farms on approximately 1,200 acres of remaining ag lands in and around the Wahiawa-Whitmore area. Rights of Entry has been issued to the farmer and long-term agreement are under negotiations.
2. Continued negotiations to acquire 3 deep wells to increase water security for the surrounding farmlands.
3. The State Legislature appropriated $4M to ADC to improve the deep wells and irrigation system to bring water to ADC land.
4. The State Legislature appropriated $1.62M to ADC to complete the plans and design for the Wahiawa Reclaimed Water Irrigation System.
5. Completed proof of concept study for the Central Oahu Food Hub.
6. Issued Request for Proposal for the construction of a High-Pressure Processing machine and agricultural facilities in the Central Oahu Food Hub on June 2, 2022.
7. The ADC removed an estimated 1,000 abandoned vehicles illegally dumped on a vacant parcel. The parcel has been awarded to farmers who are clearing and preparing the land for agricultural production.
8. The ADC partnered with Honolulu Police Department, Dole Foods, and Council Member Tsuneyoshi to address homelessness in the area through the Homeless Outreach and Navigation for Unsheltered Persons (HONU) program, which assisted over 75 homeless individuals from the area.
9. Acquired an additional 50 acres of agricultural land in Whitmore Village for agricultural production.
10. Continuing sweeps of vacant properties with the assistance of HPD until tenants are licensed and can begin to occupy and farm the land.
11. Staff continued to push tenants to embrace GAP training and certification as FSMA rules come into force.
12. Continued clearing of vacant lands in anticipation of new tenants.

Kauai Lands Highlights

FY2022 Accomplishments

Kalepa Area

1. The ADC awarded a Contract to Kaikor Construction Group to improve the Christian Crossing Bridge. Estimated completion date is December 2022.
2. Weed control operations were conducted three times, including repair of potholes, for the more than six-mile Common Element Road.
3. Land awarded to tenants for diversified agriculture.

New sweet potato crop in Kalepa, Kauai.

Kekaha Area

ADC settled the 2016 Clean Water Act lawsuit filed by EarthJustice. Under the terms of the settlement, ADC is currently implementing extensive water quality testing to identify the sources and levels of pollutants in the drainage canals and irrigation ditches in the area. It continues to utilize best management practices to reduce storm water runoff. ADC also submitted an application for a National Pollutant Discharge Elimination System permit and is awaiting approval of the permit from the State Department of Health.

1. The ADC awarded a contract to Jas. W. Glover, Ltd. to improve the interior access road. Estimated completion date is August 2022.
2. Legislature appropriated $3.5M to ADC for Kekaha Ditch Modifications. This requirement to modify the instream flow is the result of a settlement of a complaint against ADC before the Commission on Water Resources Management ("CWRM") to stop waste of water, and a petition to amend interim instream flow standards in the Waimea River
3. The ADC contracted 5Ks ENV – Island Resource Solutions to assist ADC complete and obtain a National Pollutant Discharge Elimination System permit.
4. Governor Ige signed Executive Order No. 4660 transferring 267 acres from the Hawaii Department of Agriculture to ADC.

Mana Plain looking South.

Waiahole Water System

The Waiahole Water System ("WWS") provides a constant and stable source of irrigation water to approximately 5,866 acres of land in central and leeward Oahu. The system produces 22 to 29 million gallons per day (mgd). On average, about 5 to 7 mgd is diverted for use to system customers. The remaining water is discharged into various windward streams including Kahana, Waikane, Waianu and Waiahole streams.

The WWS is a key component in ADC's Central Oahu Water Security Plan, which seeks to improve the efficiency of the WWS. Improvements will not only ensure the production of crops but will also address some of the goals of the Hawaii Fresh Water Initiative in their 2016-2018 Blueprint for Action, Water Security for an Uncertain Future.

1. There is ongoing construction of a new 15MG reservoir, new intake, and transmission line along the ditch to increase the capacity of the system and water security. Estimate completion date is October 2022.

2. Legislature appropriated $5M to ADC for construction of a back-up well and ditch improvements.

Oahu Feed Mill - Kalaeloa, Oahu

The ADC awarded a contract to Diamond Head Seafood, Inc. to develop the Oahu Feed Mill in Kalaeloa, Oahu. The State Legislature appropriated $4M to the ADC in 2019 to purchase equipment for a feed mill on Oahu to address a major bottleneck in the agriculture industry. The Hawaii animal industry consistently identifies the cost of feed as the most expensive component in operational costs. This concern is in line with the national and global effort to reduce feed costs by replacing high-cost ingredients with lower-cost alternatives. Hawaii's situation is exacerbated by the lack of local feed mills, which necessitates the importation of livestock feed. Years of research and local workshops to encourage and support the development of locally produced feed have not improved the deficient feed stock situation in the State.

In addition, local feedstock development will reduce the amount of viable waste streams (agriculture and food waste) entering into community landfills. Both agriculture and food waste are promising feed ingredients and have not been leveraged to their greatest potential yet. However, more research must be conducted to match chemical profiles with livestock feed requirements.

The proposed feed mill will be able to implement the research feed formulas and quickly deliver quality products to the industry. By reducing feed costs and the environmental impact of waste streams, the State and livestock industry will benefit in multiple ways.

Challenges Ahead

Funding challenges as a result of the Covid-19 pandemic proved not to be as challenging as originally expected. However, economic forecasts for the later part of 2022 and beyond, raise concerns about funding opportunities for ADC's projects to improve food security and resiliency.

Additionally, staff anticipates tenant farmer challenges associated with obtaining GAP training and certification, and meeting the mandates of the federal Food Safety Modernization Act of 2011. On Kauai, ADC's properties and the community-at-large have endured a number of extreme flooding events in the last several years. The realities of climate change suggest that these events may become more frequent and more severe in the coming years. Sea level rise is already threatening coastal communities across the world, and is a particular concern for the community and ADC tenants in Kekaha, Kauai.

ADC and our tenants continue to experience and attempt to mitigate agricultural theft and other security issues such as trespassing, encampments of houseless individuals, and other illegal activity. These phenomena are hardly unique to ADC; indeed, farmers large and small struggle to mitigate these activities. ADC has experienced some small measure of success by partnering with local law enforcement, as well as recently awarding much of our vacant land to tenant farmers. Regardless, the economic realities of the pandemic, as well as recent enforcement activities which disrupted large encampments elsewhere appear to have resulted in greater numbers of houseless individuals and increased transient activity on ADC lands and the lands of our neighbors.

Lastly, ADC, like many landowners and State agencies, continues to experience pressure for access to prime agricultural lands from competing non-agricultural interests such as solar power generation, waste disposal, and recreational and training activities.

Appendix I

Land Purchase Summary as of

FY2022

ADC Land Purchase Breakdown

Seller	TMK	Acreage	Closing
Trustee of the George Galbraith Estate	Various	1,250	2012
Castle & Cooke, Inc.	1-7-1-002-009	24	2013
Tamura Enterprises, Inc.	1-7-4-012-016	2	2014
Dole Food Company, Inc.	1-7-1-002-004 1-7-1-002-023	257	2015
W.H. Shipman, Ltd.	3-6-151-002	2	2015
Dole Food Company, Inc.	1-6-5-002-001	73	2016
Dole Food Company, Inc.	1-7-1-002-006 1-7-1-002-034	197	2016
Castle & Cooke, Inc.	1-7-1-002-032	205	2016
Dole Food Company, Inc.	1-6-4-003-016 1-6-5-001-046	386	2017
Castle & Cooke, Inc.	1-9-5-003-007	92	2017
Dole Food Company, Inc.	1-6-5-002-011	215	2017
Dole Food Company, Inc.	1-6-4-004-008 1-6-4-004-006	234	2017
Dole Food Company, Inc.	1-6-5-005-002	434	2017
Dole Food Company, Inc.	1-6-5-001-044	114	2020
Castle & Cooke, Inc.	1-7-1-002-037 1-7-1-002-044	30 22	Pending Pending

Appendix II

Reporting Requirements per 163D-19(b)(1)-(4), HRS as of FY2022

See Data on Following Pages

Island	Location	Lot, Field, Unit, Parcel, Tax Map Key Number	Size (acres)	Specialty Crop	Licensed	Date Last Occupied (vacant)
Hawaii	Keaau	002	1.526			n/a
Kauai	Kalepa	A	419	X	X	2020
Kauai	Kalepa	B	61.4	X	X	n/a
Kauai	Kalepa	HSPA 1	2	X	X	n/a
Kauai	Kalepa	HSPA 2	2	X	X	n/a
Kauai	Kalepa	HSPA 3	19	X	X	n/a
Kauai	Kalepa	C	179	X	X	n/a
Kauai	Kalepa	D	469	X	X	n/a
Kauai	Kalepa	E	587		X	n/a
Kauai	Kalepa	F	630	X	X	n/a
Kauai	Kalepa	G	312		X	n/a
Kauai	Kalepa	H	382		X	n/a
Kauai	Kalepa	I	518		X	n/a
Kauai	Kalepa	J	160			n/a
Kauai	Kalepa	K	345.43		X	n/a
Kauai	Kalepa	L	287	X	X	n/a
Kauai	Kalepa	M	235		X	n/a
Kauai	Kalepa	GE (A-M)	1000	X	X	n/a
Kauai	Kekaha	101	71.38	X	X	n/a
Kauai	Kekaha	102	67.03	X	X	n/a
Kauai	Kekaha	103	21.8 (por)	X	X	n/a
Kauai	Kekaha	104	52.23 (por)	X	X	n/a
Kauai	Kekaha	105	52.75	X	X	n/a
Kauai	Kekaha	106	38.08	X	X	n/a
Kauai	Kekaha	107	80.29	X	X	n/a
Kauai	Kekaha	108	61.88	X	X	n/a
Kauai	Kekaha	109	4.58	X	X	n/a
Kauai	Kekaha	110	43.17	X	X	n/a
Kauai	Kekaha	111	23.01	X	X	n/a
Kauai	Kekaha	112	114.62	X	X	n/a
Kauai	Kekaha	113	54.74	X	X	n/a
Kauai	Kekaha	115	47.47	X	X	n/a
Kauai	Kekaha	116	106.88	X	X	n/a
Kauai	Kekaha	117	58.81	X	X	n/a
Kauai	Kekaha	119	94.26	X		unknown
Kauai	Kekaha	120	107.09	X	X	n/a
Kauai	Kekaha	121	106.44	X	X	n/a
Kauai	Kekaha	123	48.34	X	X	n/a
Kauai	Kekaha	125	68.31	X	X	n/a
Kauai	Kekaha	127	151.47	X	X	n/a
Kauai	Kekaha	128	153.92	X	X	n/a
Kauai	Kekaha	130	83.71	X	X	n/a
Kauai	Kekaha	201	80.76	X		unknown
Kauai	Kekaha	206	24.17	X	X	n/a
Kauai	Kekaha	207	88.02 (por)	X	X	n/a
Kauai	Kekaha	208	59.8	X	X	n/a

Kauai	Kekaha	209	73.32	X	X	n/a
Kauai	Kekaha	210	34.96	X	X	n/a
Kauai	Kekaha	211	33.69	X	x	n/a
Kauai	Kekaha	212	88.84	X	X	n/a
Kauai	Kekaha	213	37.15	X		2015
Kauai	Kekaha	214	54.96	X		2015
Kauai	Kekaha	215	85.05	X		2015
Kauai	Kekaha	216	98.79	X	X	n/a
Kauai	Kekaha	217	112.3	X	X	n/a
Kauai	Kekaha	218	64.16	X	X	n/a
Kauai	Kekaha	219	199.72	X	X	n/a
Kauai	Kekaha	220	91.94	X	X	n/a
Kauai	Kekaha	221	100.03	X	X	n/a
Kauai	Kekaha	222	71.94	X	X	n/a
Kauai	Kekaha	223	85.02	X	X	n/a
Kauai	Kekaha	225	105.22	X	X	n/a
Kauai	Kekaha	228	82.87	X	X	n/a
Kauai	Kekaha	229	92.02	X	X	n/a
Kauai	Kekaha	309	139.88 (por)	X	X	n/a
Kauai	Kekaha	310	75.76	X	X	n/a
Kauai	Kekaha	311	42.69	X	X	n/a
Kauai	Kekaha	312	88.19	X	X	n/a
Kauai	Kekaha	313	50.79	X	X	n/a
Kauai	Kekaha	314	64.36	X	X	n/a
Kauai	Kekaha	315	40.71	X	X	n/a
Kauai	Kekaha	316	21.25	X	X	n/a
Kauai	Kekaha	317	54.48	X		2016
Kauai	Kekaha	320	101.73	X		2013
Kauai	Kekaha	321	69.28	X	X	n/a
Kauai	Kekaha	322	63.03	X	X	n/a
Kauai	Kekaha	323	127.92	X		unknown
Kauai	Kekaha	324	41.88	X	X	n/a
Kauai	Kekaha	325	31.57	X	X	n/a
Kauai	Kekaha	326	117.77	X		2010
Kauai	Kekaha	327	117.04	X		2016
Kauai	Kekaha	408	15	X	X	n/a
Kauai	Kekaha	409	87.86	X	X	n/a
Kauai	Kekaha	414	14.76	X		2015
Kauai	Kekaha	419	91.14	X		2013
Kauai	Kekaha	421	63.6	X		2013
Kauai	Kekaha	424	67.74	X		2010
Kauai	Kekaha	425	70.66	X		2010
Kauai	Kekaha	601	50.77	X		2003
Kauai	Kekaha	602	59.93	X		2003
Kauai	Kekaha	611	48.17	X		2003
Kauai	Kekaha	612	62.36	X		2003
Kauai	Kekaha	613	142.71	X		2003
Kauai	Kekaha	621	101.99	X		2003
Kauai	Kekaha	631	67.17	X		2003

Kauai	Kekaha	632	65.71	X		2003
Kauai	Kekaha	633	62.29	X	X	n/a
Kauai	Kekaha	635	87.73	X		2003
Kauai	Kekaha	641	48.26	X		2003
Kauai	Kekaha	642	94.16	X		2003
Kauai	Kekaha	643	41.99	X		2003
Kauai	Kekaha	644	47.58	X		2003
Kauai	Kekaha	645	80.25	X		2003
Kauai	Kekaha	646	44.41	X	X	n/a
Kauai	Kekaha	651	31.2	X		2003
Kauai	Kekaha	652	68.74	X		2003
Kauai	Kekaha	653	56.79	X		2003
Kauai	Kekaha	661	52.76	X		2003
Kauai	Kekaha	662	43.02	X		2003
Kauai	Kekaha	663	63.65	X		2003
Kauai	Kekaha	664	105.52	X		2003
Kauai	Kekaha	665	111.71	X		2003
Kauai	Kekaha	666	82.55	X	X	n/a
Kauai	Kekaha	671	49.49	X		2003
Kauai	Kekaha	672	75.29	X		2003
Kauai	Kekaha	673	31.85	X		2003
Kauai	Kekaha	KAP 1	6.371	X	X	n/a
Kauai	Kekaha	KAP 2	13.726	X	X	n/a
Kauai	Kekaha	KAP 3	10.834	X	X	n/a
Kauai	Kekaha	KAP 4	10.014	X	X	n/a
Kauai	Kekaha	KAP 5	9.954	X	X	n/a
Kauai	Kekaha	KAP 6	8.472	X	X	n/a
Kauai	Kekaha	KAP 7	8.495	X	X	n/a
Kauai	Kekaha	KAP 8	8.113	X	X	n/a
Kauai	Kekaha	KAP 9	6.045	X	X	n/a
Kauai	Kekaha	KAP 10	5.423	X	X	n/a
Kauai	Kekaha	KAP 11	7.603	X	X	n/a
Kauai	Kekaha	KAP 12	5.465	X	X	n/a
Kauai	Kekaha	KAP 13	5.976	X	X	n/a
Kauai	Kekaha	KAP 14	7.91	X	X	n/a
Kauai	Kekaha	KAP 15	7.845	X	X	n/a
Kauai	Kekaha	KAP 16	7.753	X	X	n/a
Kauai	Kekaha	KAP 17	9.447	X	X	n/a
Kauai	Kekaha	KAP 18	9.447	X	X	n/a
Kauai	Kekaha	KAP 19	7.585	X	X	n/a
Kauai	Kekaha	Parcel A	5.601		X	n/a
Kauai	Kekaha	Parcel B	32.929		X	n/a
Kauai	Kekaha	Parcel C	17.297	X	X	n/a
Kauai	Kekaha	Parcel D	5.195	X	X	n/a
Kauai	Kekaha	Parcel E	42.019		X	n/a
Oahu	Galbraith	1	26.551	X	X	n/a
Oahu	Galbraith	2	10.767	X	X	n/a
Oahu	Galbraith	3	6.023	X		2012
Oahu	Galbraith	4	10.000	X	X	n/a

Oahu	Galbraith	5	36.026	X	X	n/a
Oahu	Galbraith	6	30.616	X	X	n/a
Oahu	Galbraith	7	24.202	X	X	n/a
Oahu	Galbraith	8	42.325	X	X	n/a
Oahu	Galbraith	9	79.991	X	X	n/a
Oahu	Galbraith	10	83.328	X	X	n/a
Oahu	Galbraith	11	62.025	X	X	n/a
Oahu	Galbraith	12	57.783	X	X	n/a
Oahu	Galbraith	005	221.902	X		2017
Oahu	Galbraith	003	132.648	X	X	n/a
Oahu	Galbraith	010	319.769	X	X	n/a
Oahu	Whitmore	004	257	X	X	n/a
Oahu	Whitmore	037	30	X		n/a
Oahu	Whitmore	044	22	X		n/a
Oahu	Whitmore	009	24	X	X	n/a
Oahu	Paalaa Uka	016	552.47	X		2017
Oahu	Whitmore	006	4	X		2017
Oahu	Whitmore	008	230	X		2017
Oahu	Paalaa Uka	056	114	X	X	n/a
Oahu	Paalaa Uka	046	42	X	X	n/a
Oahu	Whitmore	001	73	X	X	n/a
Oahu	Paalaa Uka	006	42	X	X	n/a
Oahu	Paalaa Uka	008	46	X	X	n/a
Oahu	Paalaa Uka	031	216	X	X	n/a
Oahu	Paalaa Uka	009	393.26	X	X	n/a
Oahu	Whitmore	023	0.29	X		2013
Oahu	Whitmore	006	7.87			2016
Oahu	Whitmore	034	187	X		2016
Oahu	Whitmore	041	122	X		2016
Oahu	Whitmore	046	60	X		2016
Oahu	Whitmore	047	24	X		2016
Oahu	Whitmore	010	5	X		2018
Oahu	Tamura	016	1.57		X	n/a
Oahu	Kunia	003	91	X		2015
Oahu	Mililani	007	92	X		2017

Appendix III

Hawaii Agribusiness Plan (2021)

See Agribusiness Plan on Following Pages

DECEMBER 2020

HAWAII AGRIBUSINESS PLAN 2021

3	Introduction
5	ADC Framework for Increased Agricultural Productivity
6	Land Acquisition & Development
8	Irrigation System Development & Maintenance
9	Improve Components of the Food System
10	HRS 163D-5(a) Requirements
12	Appendix 1: Past Agriculture Strategic Plans
13	LRB Report: No Further Study Needed; Implementation Needed
23	Appendix 2: Maps

Before developing the Hawaii Agribusiness Plan, the Agribusiness Development Corporation (ADC) resolved to understand the numerous reports and plans prompted by the legislature and other agricultural interests; to identify the organizational, procedural, and substantive hurdles preventing the ADC from operating as effectively as anticipated; and to assimilate these reports and plans into a coherent and comprehensive plan to expand agriculture in Hawaii.

The earliest of these efforts was the 1997 Legislative Reference Bureau ("LRB" or "Bureau") Report No. 2 ["Plan(ing) Is Not A Four-Letter Word: A Formative Evaluation of the Agribusiness Development Corporation"]. That year, the Bureau made seven recommendations, including recommendations that ADC be given more time and sufficient staffing to meet its mandates; that deadlines be imposed for the development of a strategic plan; and that the ADC mission be clarified. None of the seven recommendations were followed or acted upon.

In 2007, the LRB conducted a follow-up study ("Agribusiness Development Corporation: Revisited"), in response to Act 267, Session Laws of Hawaii 2006. The 2007 Report noted that the ADC had yet to prepare a Hawaii agribusiness plan and, as set forth in Act 267, solicited input from governmental agencies and stakeholders in the agricultural industry to identify the necessary elements of a Hawaii agribusiness plan. The Bureau identified and sent out fifty-four letters to governmental agencies and industry stakeholders asking for their input to this legislative request. The bulk of the report was a compilation and discussion of the responses that the Bureau received in response to its inquiry.

The 2007 Report found that the predominant sentiment of the stakeholders were:

- Further studies would be redundant; ADC should focus its resources on implementing existing studies
- Key elements of an agribusiness plan are already set forth in section 163D-5(a), HRS
- ADC's role in the growth of agriculture should be redefined to avoid overlapping with the roles of other agencies and organizations

The 2007 Report pointedly stated that the Legislature should decide whether the ADC should be an all-expansive agency or whether it should be more focused on what it was then doing at the time in 2007. In 2013, the Legislature began allocating tens of millions of dollars to the ADC towards acquiring agricultural lands from private landowners such as the Galbraith Agricultural Lands, and other vacant plantation lands to transition these lands into smaller diversified farms. Since then, ADC shifted its focus to developing, remediating, improving and making these lands available to the agricultural community, the foundations that are fundamental to successfully expand diversified agriculture before it casts its wide net over other areas of agribusiness. Those foundations and therefore ADC's goals are 1) Land Acquisition and Development, 2) Irrigation System Development and Maintenance, and 3) Improving Components of the Food System.

Land Acquisition & Development	**Irrigation System Development & Maintenance**	**Improve Components of the Food System**
PURCHASE/ EXECUTIVE ORDER/ LAND EXCHANGE	RESERVOIR DEVELOPMENT	GROWING
		HARVESTING
		PROCESSING
	SYSTEM DEVELOPMENT/ MAINTENANCE	PACKAGING
INFRASTRUCTURE DEVELOPMENT/ MAINTENANCE		DISTRIBUTING
		CONSUMING
		RECYCLING
		MARKETING

ADC Framework for Increased Agricultural Productivity Land Acquisition & Development: The ADC manages 22,000 acres on the island of Kauai and Oahu. Of the 22,000 acres it manages, 13,900 acres have commercial value and are considered ideal lands for agriculture production. The remainder is comprised of gulches, ravines, ditches, and roadways. To date, the ADC issued license agreements and permits to agriculture operations for long-term use of 8,000+ acres, which represents over 60% of its total land inventory. Keeping large tracts of former plantation lands in agriculture and providing long-term licenses and leases to agricultural operations are the key elements to building the agriculture sector of the future.

Goal: Acquire and develop productive agricultural lands for agricultural development

Objective(s):

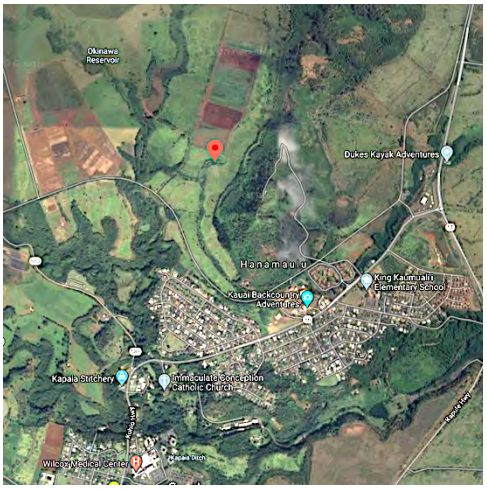
1. To maximize utilization (100% occupancy) of ADC agricultural land resources for diversified agribusiness.
2. To implement the State's goal to double local food production and consumption.
3. To reduce food imports.
4. To acquire and make agriculture lands available for production.
5. Educate the public on the importance of local agriculture and farming to our state economy and food supply during this COVID-19 pandemic.

LAND ACQUISITION & DEVELOPMENT

ACTION ITEMS

OAHU

- Acquire additional acres into ADC land inventory (5 to 7 years). Selected parcels will be purchased to protect agriculture status and availability.
- Convert an additional 1,000 acres of vacant land to productive diversified agriculture status (1 to 3 years). Selected parcels will be targeted for land preparation including tree clearing and amending the conditions of the soil.
- Develop and implement a crop rotation framework that includes both livestock and crops (1 to 3 years).
- Develop facilities and infrastructure to accommodate agriculture activities (harvesting, packing, processing and distribution) (5 to 7 years).



KALEPA, KAUAI

- Convert 500 acres to productive diversified agriculture status (1 to 3 years). Selected parcels will be targeted for land preparation including tree clearing and amending the conditions of the soil.
- Implement a crop rotation program (1 to 3 years). Develop a crop rotation framework that includes both livestock and field crops.

KEKAHA, KAUAI

Convert 1,000 acres to productive diversified agriculture status (1 to 3 years). Selected parcels will be targeted for land preparation including tree clearing and amending the conditions of the soil.

Irrigation System Development & Maintenance: In addition to agricultural lands on Kauai and Oahu, the ADC also manages the Waiahole Water System. The ADC continues to work with its farmers to improve and maintain critical infrastructure necessary to support agricultural operations. In addition to ongoing maintenance of existing infrastructure, the ADC is also developing new infrastructure and improving water storage capacity by constructing reservoirs and storage ponds to ensure farmers have a consistent and affordable supply of irrigation water.

Goal: Assure the continued availability of adequate, reasonably priced water to lands to accommodate present and future agricultural activities.

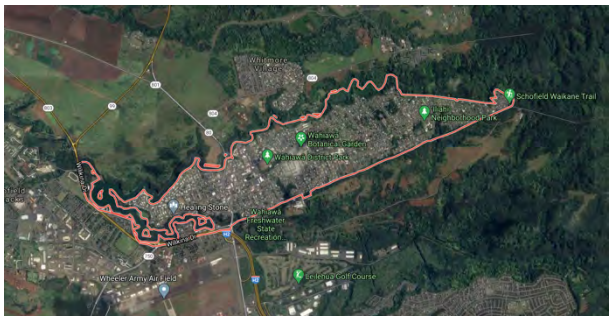
Objective(s):

- To develop a master irrigation plan which incorporates system development, watershed management and water recycling.
- To maintain and improve the efficiency of existing irrigations systems.
- To expand agricultural water resources.

CENTRAL OAHU

Implement the Central Oahu Watershed Management Plan (5 to 7 years).

Rehabilitate the existing Waiahole Water System which includes constructing a reservoir, back-up well development, enclosing high-risk sections, and improving data gathering (1 to 5 years).



WAHIAWA, OAHU

Incorporate R-1 water from the Wahiawa Wastewater Treatment Plant into the agriculture system (5 to 10 years).

Expand system capacity by acquiring and incorporating 3 existing wells (1 to 3 years).

Develop additional reservoirs to accumulate surface water and incorporate into the agriculture system (2 to 5 years).

IRRIGATION SYSTEM DEVELOPMENT & MAINTENANCE

ACTION ITEMS

KALEPA, KAUAI

- Work with the Department of Land and Natural Resources to rehabilitate the Hanamaulu ditch portion of the existing irrigation system (2 to 5 years).
- Improve the Christian Crossing Bridge which provides access for standard trucks and heavy equipment (1 to 3 years).

KEKAHA, KAUAI

- Pressurize the existing irrigation system (1 to 5 years).
- Rehabilitate the existing irrigation system including repair of the hydro-electric plant (2 to 5 years).
- Work with the Kekaha Agriculture Association to improve the Kekaha Bridge which provides access for standard trucks and heavy equipment (1 to 3 years).

Improve Components of the Food System: A food system includes all processes and infrastructure involved in feeding a population: growing, harvesting, processing, packaging, transporting, marketing, consumption, and disposal of food and food-related items. It also includes the inputs needed and outputs generated at each of these steps. A food system operates within and is influenced by social, political, economic and environmental contexts. It also requires human resources that provide labor, research and education.

Goal: To improve the productivity of agriculture operations by providing brick and mortar facilities, as needed, and to promote efficient profitability by enticing the development of applied research and innovation on State lands and in State facilities.

Objective: Identify and deploy viable new techniques and tools to improve crop and livestock yield and marketability.

ACTION ITEMS

Research & Development:

- Greenhouse development to lower costs and implement new technology
- Plant breeding to develop new varietal and cultivar annually
- Improve the handling and processing of papaya
- Increase the ʻulu industry to productive scale

Marketing:

- Increase exposure of emerging crops that include, but are not limited to, tilapia and ʻulu for local, as well as export markets such as papaya.
- Provide available space to producers who can afford to construct their own food hub facility.

Kekaha, Kauai:

- Develop a central food hub to accommodate processing, packing, storage and distribution
- Develop a workforce housing solution with private partner

HRS 163D-5(a) Requirements: Over the past 25 years, all of the plantations have closed and many of the 9 items listed in 163D are obsolete or duplicate the function of the Hawaii Department of Agriculture. ADC will refocus its efforts on current and relevant priorities.

[1994] HRS 163D-5(a) The corporation shall prepare the Hawaii agribusiness plan which shall define and establish goals, objectives, policies, and priority guidelines for its agribusiness development strategy. The plan shall include but not be limited to the below.

1994 REPORT REQUIREMENT	2020 ADC COMMENTS
An inventory of agricultural lands with suitable adequate water resources that are or will become available due to the downsizing of the sugar and pineapple industries that can be used to meet present and future agricultural production needs.	Information provided by HDOA "Statewide Agricultural Land Use Baseline 2015" report.
An inventory of agricultural infrastructure that will be abandoned by sugar and pineapple industries such as irrigation systems, drainage systems, processing facilities, and other accessory facilities.	Useful inventory has been accounted for over the past 25 years.
An analysis of imported agricultural products and the potential for increasing local production to replace imported products in a manner that complements existing local producers and increases Hawaii's agricultural self-sufficiency.	Support provided by HDOA Agricultural Development Division.
Alternatives in the establishment of sound financial programs to promote the development of diversified agriculture.	Support provided by HDOA Agricultural Loan Division, DBEDT and the private sector.
Feasible strategies for the promotion, marketing, and distribution of Hawaii agricultural products in local, national, and international markets.	Support provided by HDOA Agricultural Development Division. ADC will focus on production development.

1994 REPORT REQUIREMENT	2020 ADC COMMENTS
Programs to promote and facilitate the absorbing of displaced agricultural workers into alternative agricultural enterprises.	Current issue is the lack of farm labor.
Strategies to insure the provision of adequate air and surface transportation services and supporting facilities to support the agricultural industry in meeting local, national, and international market needs.	Information provided in "The Demand for Interisland Shipping and the Impact of Shipping Costs on Hawaii Agricultural Production 2008" report.
Proposals to improve the gathering of data and the timely presentation of information on market demands and trends that can be used to plan future harvests and production.	Support provided by HDOA Agricultural Development Division.
Strategies for federal and state legislative actions that will promote the development and enhancement of Hawaii's agricultural industries.	Collaborate with Federal, State, County and Stakeholder organizations to support agriculture initiatives.

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LRB Report: No Further Study Needed; Implementation Needed:
Perhaps the most emphatic comment in this regard came from Ms. Stephanie Whalen, President and Director of HARC:

> With respect to the preparation of a Hawaii agribusiness plan I would like to bring to your attention if you haven't already discovered it that there have been at least 8 such plans without implementation since 1966. These were either called State Agricultural Plans or State Agricultural Functional Plans or similar titles. None of these plans have been implemented nor is there much difference among them. The issues have been recognized for decades; solutions have been suggested; little implementation has occurred.

Ms. Whalen goes on to note, as do other respondents, that "The Hawaii Farm Bureau Federation, an organization representing the farming community, has the most recently developed A Strategic Plan for Hawaii's Agriculture…. As all the state plans before it, it identifies what needs to be done. What is needed is for all the support organizations to work with this 'plan' and develop and support action items within their expertise for implementation." Further in her response she states: "If the goal of this is to support agricultural (sic), then another plan is not needed. What is needed is a recognition that the necessary elements have been identified over and over again in the past 4 decades in at least 9 plans already."

In a similar note, Ms. Teena Rasmussen, Chairperson of ADC states: "The Hawaii Farm Bureau Federation completed a very comprehensive plan titled 'Strategic Plan for Hawaii's Agriculture.'…We urge the LRB to look at these plans and studies in detail and avoid a duplication of effort." Also, the Maui County Farm Bureau stated: "The Hawaii Farm Bureau Federation has prepared and regularly updates a Strategic Vision and Implementation Actions for Agriculture in Hawaii. …We strongly recommend that this Vision and Plan be used as the basis a (sic) Hawaii Agribusiness Plan. Duplication of effort is counterproductive. Rather, time would be better spent further developing the implementation actions."

Similarly, HFBF notes: "ADC should expound on the existing general agricultural plans and move into the implementation state with annual review of performance and measurement standards." Further in its response, HFBF states: "The Bureau should use existing agricultural plans such as the Farm Bureaus' (sic) strategic plan and the DOA's general agricultural plan. This will reduce duplication of resources and efforts to start a

whole new plan. At this point, we should be updating or implementing sections within these plans." Finally, HC&S (?) states: "Preparing a new Plan may not be needed … rather implementation of an existing plan."

Due to the prominence with which the HFBF's plan is mentioned in many responses, a quick review of that plan is warranted. The plan opens with an introduction and vision followed by a stated purpose.

> The purpose of this plan is to evaluate the production, financial, marketing, and distribution problems and opportunities facing Hawaii's agriculture. The plan provides a roadmap to formulate a strategy to address issues hindering Hawaii's agriculture and to fully realize its potential. By identifying each issue, attention can be focused on reaching new or different solutions. This third version begins to identify some of the actions that have taken place and sets into the implementation phase of the Plan.

Private sector motivation must be the driver to move these goals and objectives forward. Agriculture should not rely on government or others to determine its future. Government's role must be limited to providing the political, regulatory, and infrastructural support needed to enhance agriculture.

Previous Agriculture Plans Summary | Section 1 (identified by Paul Schwind 2000)

Hawaii State Plan

Next to the Constitution in importance, the State Plan (first enacted in 1978) contains legislatively adopted agricultural and agriculture-related objectives, policies and priority guidelines. The three primary objectives of the State Plan for agriculture are (1) viability of Hawaii's sugar and pineapple industries, (2) growth and development of diversified agriculture throughout the State, and (3) an agriculture industry that continues to constitute a dynamic and essential component of Hawaii's strategic economic and social well-being. These broad objectives are fleshed out b) policies (long-range courses of action to be carried out to achieve the objectives), and priority guidelines (focus for public and private actions to address major statewide problems requiring more immediate attention). The State Plan Policy Council, which had been the core of the statewide planning coordination and implementation system for the State Plan, was abolished by the Legislature in 1991.

The State Plan distinguishes policies and priority guidelines in the sense that a guideline "may be deviated from without penalty or sanction." implying that there might be some legal penalty or sanction for deviating from a policy. But priority guidelines are further defined as those which "shall take precedence when addressing areas of statewide concern." The State Plan policies and priority guidelines for agriculture are stated in full in Appendix A and are cited as appropriate in the following sections.

Hawaii State Constitution

The most fundamental direction for agricultural planning is contained in the State Constitution, as amended by the Constitutional Convention of 1978:

> The State shall conserve and protect agricultural lands, promote diversified agriculture, increase agricultural self-sufficiency and assure the availability of agriculturally suitable lands. The legislature shall provide standards and criteria to accomplish the foregoing.
>
> Lands identified by the State as important agricultural lands needed to fulfill the purposes above shall not be reclassified by the State or rezoned by its political subdivisions without meeting the standards and criteria established by the legislature and approved by a two-thirds vote of the body responsible for the reclassification or rezoning action.

Notwithstanding the explicit direction adopted by the electorate more than twenty years ago. The Legislature has to date failed to enact the standards and criteria for conservation and protection of important agricultural lands. (The identification and inventory of such lands is discussed below.)

DOA State Agriculture Functional Plan

This is the only plan specifically for agriculture to have achieved a measure of official acceptance. As such, the Functional Plan (prepared by the Department of Agriculture (DOA) with advice from an Advisory Committee appointed by the Governor) identifies priority issues in agriculture and contains objectives, policies. Also identified is implementing actions including legislative proposals: initiatives for organization, management programs, and services; and development of facilities or physical infrastructure.

As originally conceived, the Functional Plans were intended to be adopted by concurrent resolution of the Legislature upon the findings and recommendations of the State Plan Policy Council, and the Plan for agriculture was adopted in this manner in 1985. Subsequently, Functional Plans were to be submitted to the Legislature by the Governor for information only, along with the Policy Council's findings and recommendations; it is in this form that the last Agriculture Functional Plan was completed and approved by Governor John Waihee on May 22. 1991. After the abolition of the Policy Council, Functional Plans were to be prepared in accordance with guidelines developed by the Department of Budget and Finance; but inasmuch as such guidelines were not forthcoming, preparation of Functional Plans effectively ceased after 1991.

Implementation of the State Agriculture Functional Plan has also met evolving purposes over the years as the Hawaii State Plan underwent amendments. Initially, Functional Plans were not to be used as statements or interpretations of State policy without legislative approval. Later. the Plans were to be used as guidelines to implement State policies adopted by the Legislature. Most recently, Functional Plans are to be used "to guide the allocation of resources" for the implementation of legislatively adopted policies. The issue areas and a selection of the objectives, policies, and actions for which the DOA was the lead agency for implementation in its last Functional Plan are stated in Appendix B. and are cited as appropriate in the following sections.

OSP Transformation of Hawaii's Agriculture

The former Office of State Planning (OSP) produced a document in 1994 which proposed a comprehensive, coordinated mechanism to guide the transformation from the dominance of the sugar and pineapple industries to market-driven, fully diversified agribusiness. The OSP document proposed that the former Governor's Agriculture Coordinating Committee (GACC) be the lead agency ("the voice of the Governor") for implementation of a "transformed agriculture" through the mechanism of commodity industry "Action Groups." These Action Groups would consist of partnerships of public and private interests ("statespersons and stakeholders") empowered by their linkages to achieve specific goals and objectives.

The former OSP saw itself as the logical focus for a leadership role in a "Transformation Action Group" involved with the advocacy of agriculture in the context of broad, "transcommodity" issues. However. OSP also foresaw an important role for the ADC as a semi-government corporation to facilitate the transformation of agricultural infrastructure from plantation operations into other agricultural enterprises by means of projects self-funded by their own beneficiaries. The general bottleneck areas identified in agriculture by OSP, and examples of the kinds of actions envisioned for ADC, are

summarized in Appendix C; these and additional materials from the "Transformation" document are also referred to as appropriate in the following sections.

DOA New Opportunities for Agriculture in Hawaii

Independently of the OSP's "Transformation" document as well as the strictures of the Functional Plan process, the Department of Agriculture (DOA) prepared its own assessment of the need for an empowered "champion" or advocate and leader for agriculture in Hawaii. In the "Blueprint Plan," the DOA envisioned a future in which prime agricultural lands were fully utilized by a diversified, intensive, and technologically sophisticated agricultural industry developed in a dynamic public/private partnership. The "Blueprint" was approved by the Board of Agriculture [for the purpose of review and comment] in December. 1994. and presented to a conference at the College of Tropical Agriculture and Human Resources (CTAHR) at the University of Hawaii in April 1995.

Not surprisingly, the "Blueprint" foresaw DOA as the "torch bearer" and catalyst for planning with implementation supported primarily by the agricultural development plans, projects, and facility programs of the ADC and the agricultural research, development and extension activities of the Hawaii Agriculture Research Center (HARC) [former Hawaiian Sugar Planters' Association]. However, in a departmental restructuring which accompanied a more than twenty percent reduction in workforce, the DOA's Planning and Development Office was eliminated in September 1996 and its functions were placed within the Chairperson's office with reduced staffing.

DOA Hawaii's Agriculture: 2000 and Beyond

The DOA established a more commodity specific vision in 1996 with short-term "benchmark" goals by crop and livestock categories. The vision foresees Hawaii as an agricultural center for production, marketing, and technology transfer -- a "Holland of the Pacific" for potted plants and cut flowers -- and looks to agriculture as a growth opportunity in which Hawaii can be competitive and reduce its dependency on tourism. In its "Agriculture 2000" document, the Department sought a 15 to 30 percent increase in farm production value, or a dollar increase of from $50 to $100 million, between 1994 and the year 2000. Examples of means by which these production goals could be achieved include creation of a hog breeding operation; overcoming Japanese quarantine restrictions against potted foliage plants; preservation of irrigation resources (ditch systems) throughout the State; encouraging local production of livestock feed: control of papaya ringspot virus; test marketing of tropical specialty fruits treated by irradiation to prevent fruit fly infestation; development of a center for biological control: support of "eco" or "green" tourism; and use of vacant lands for agroforestry (production of high-value hardwoods).

ADC Progress Report Draft Outline

The ADC reorganized internally during 1997 to become more project focused: this focus is reflected in the Draft Outline of the Hawaii Agribusiness Plan included in the Progress Report incorporated in the ADC Annual Report for that year. The report notes that 103,400 acres and 193 million gallons per day (MGD) of irrigation water have become available since 1990 due to closure of sugar plantations, with only modest gains in acreage planted and infrastructure utilized in other types of crops. The ADC has seen itself as playing a complementary role to DOA in achieving the goal of transforming Hawaii's agricultural industry into one of farmers empowered by an entrepreneurial, market- driven philosophy. In the past, ADC fulfilled this role by assisting dislocated agricultural workers make the transition into their own fanning operations. In the future, ADC expects to focus more on projects with the greatest effect on the entire industry, in particular preserving and making available critical land, roadways, and water delivery infrastructure.

The projects prioritized in the Draft Outline of the Hawaii Agribusiness Plan are (1) purchase of the Waiahole Water System, (2) restoration of Lower Hamakua Ditch, (3) profitable agricultural reuse of Waipio Peninsula, (4) feasibility investigation of a Hawaii Freight Consolidation Center along with West Coast Redistribution Centers, and (5) new subdivision standards for Reparcelization of Agriculturally Zoned Lands. To these five projects, a sixth was added in 1998, (6) a Marketing Inventory of Former Sugarcane Lands and Water Systems, to publicize the availability and suitability of these resources for a variety of new crops.

RETA-H Marketing Inventory

This is the second example of a concept proposal submitted by the ADC for federal funds through the Rural Economic Transition Assistance Hawaii (RETA-H) program. In the first example, the concept proposal for the Waipio Peninsula project was approved, and ADC was invited to submit a full proposal for $100,000 in matching funds for engineering and feasibility studies of off-site water source development and on-site infrastructure layout and costs on 600 arable acres of former sugarcane land (and 52 acres requiring fill and stabilization), which may be used for seed corn, silage, and soybean production. In the second example, ADC is seeking $400,000 to inventory 60 to 80 sugarcane water systems and adjacent lands in detail as to their sources of water, ownership, capacity, average flow, condition, personnel, operating costs, and location of agricultural lands served. This information is essential to the State's efforts to attract small diversified family farms with financing to start up and expand operations on lands formerly utilized in sugarcane production.

DOA Agricultural Water Use and Development Plan

As part of the Hawaii Water Plan required under the State Water Code, each County shall prepare a Water Use and Development Plan, and the appropriate agency (Department of Land and Natural Resources (DLNR) shall prepare a State Water Projects Plan. To this was added in 1998 the Agricultural Water Use and Development Plan, to be prepared by DOA and submitted to the Legislature before the Regular Session of 2000. The Agricultural Water Plan is to include a master inventory of irrigation water systems, identifying the extent of rehabilitation needed, subsidy required for the cost of repair and maintenance, and criteria to prioritize the rehabilitation of systems. The Plan shall develop a five-year program to repair the irrigation systems and set up a long-range plan for their management.

CTAHR Strategic Plan

The College of Tropical Agriculture and Human Resources (CTAHR) at the University of Hawaii recently issued an undated five-year Strategic Plan to guide it through the aftermath of a period of severe budget restrictions in which the College experienced a 15 percent increase in student enrollment and a net loss of 49 professional positions. The vision of CTAHR is that it will be "the premier resource for tropical agricultural systems and resource management in the Asia-Pacific region." In its mission, CTAHR is committed to "the preparation of students and all citizens of Hawaii for life in the global community through research and educational programs supporting tropical agricultural systems that foster viable communities, a diversified economy, and a healthy environment." The two centerpieces of the Strategic Plan are (I) a comprehensive

reorganization of CTAHR's staff and resources into six departments from eleven; and (2) rejuvenation of outreach and Extension programs to make the College's new academic programs and its research results more accessible to the citizens of Hawaii. New faculty, staff, and capital improvement funds are needed for all of these efforts.

USDA/HACC Action Plan Statement

A document prepared by the "USDA/Hawaii Agricultural Coordinating Committee" suggests a joint Federal/State effort at outlining the essential content of a new plan for agriculture in Hawaii. The action statements are organized into eleven categories, consisting of Market Development. Pest Management, Quarantine Treatment, Biotechnology Development, Forestry Development, Reuse of Agricultural Lands. Rural Infrastructure Development, Agricultural Financial Assistance, Conservation and Resource Management, Transportation, and Other Issues. The statements are a response by the Office of the Governor to a request from Senator Daniel K. Inouye that the State of Hawaii develop a Memorandum of Understanding with the U.S. Department of Agriculture. The document is distinguished by reference to a number of Federal agencies which may be role players in the agricultural development process in Hawaii. These agencies include the Foreign Agricultural Service, Agricultural Research Service and Rural Business Cooperative Service of the U.S. Department of Agriculture (USDA).

Hawaii Agriculture Research Center

No survey of agribusiness development efforts in Hawaii would be complete without specific reference to the programs of the Hawaii Agriculture Research Center (HARC), which during 1997 completed its transformation from its predecessor organization, the Hawaiian Sugar Planters' Association (HSPA). The historical focus of HARC (HSPA) has been on plant breeding and selection for sugarcane, more recently augmented by related research in diversified crops such as acacia koa and eucalyptus (commercial forest products), coffee, papaya, pineapple, banana, asparagus, and taro. The administrative structure of HARC reflects its blend of old and new emphases, with its Board of Directors consisting of representatives from sugar producing companies, assisted by an Advisory Council of representatives from the Hawaii Farm Bureau Federation, the forestry, coffee, papaya, macadamia nut, seed com, and pineapple industries, and DOA and CTAHR. HARC supports the Farm Bureau's Commodity Advisory Group in helping export + industries solve problems related to land, water, transportation, marketing, and the environment. HARC also works cooperatively with DOA, CTAHR and USDA to share expertise, facilities, and other resources. HARC's budget is symptomatic of its eclectic nature with 60 percent of its funding coming from the private sector, 21 percent from the State, and 19 percent from the Federal Government.

Section 2: Recent Agriculture Plans

The Hawaii 2050 Sustainability Plan was published in 2008 in accordance with Act 8, Special Session Laws of 2005. Act 8, Special Session Laws of 2005 requires the State Auditor, with the assistance of the Office of Planning, to update this plan every ten years; due to a lack of funding for the update of this plan, the Office of Planning, through the State's Sustainability Coordinator, conducted an evaluation of the metrics and indicators established by the 2008 Hawaii 2050 Sustainability Plan. This evaluation and measurement was the first of its kind over the past decade. This report reviews the data collected over the course of this ten-year measurement of Hawaii's progress toward sustainability according to the Hawaii 2050 Sustainability Plan's 5 goals, 9 "2020 benchmarks", 22 strategic actions, and 55 indicators.

Hawaii Farm Bureau Federation: A Strategic Plan for Hawaii's Agriculture 2004

The Hawaii Farm Bureau is a grassroots non-profit organization founded by Hawaii farmers and ranchers and working with organizations, communities and individuals involved in all aspects of the Agricultural Industry in Hawaii. The purpose of the plan is to evaluate the production, financial, marketing, and distribution problems and opportunities facing Hawaii's agriculture. The plan provides a roadmap to formulate a strategy to address issues hindering Hawaii's agriculture and to fully realize its potential. By identifying each issue, attention can be focused on reaching new or different solutions. This third version begins to identify some of the actions that have taken place and sets into the implementation phase of the Plan. Private sector motivation must be

the driver to move these goals and objectives forward. Agriculture should not rely on government or others to determine its future. Government's role must be limited to providing the political, regulatory, and infrastructural support needed to enhance agriculture.

DBEDT Office of Planning: Increased Food Security and Food Self-Sufficiency Strategy 2012

The "Increased Food Security and Food Self-Sufficiency Strategy" sets forth objectives, policies and actions to increase the amount of locally grown food consumed by Hawaii's residents. The economic impact of food import replacement is significant. Replacing just 10% of the food Hawaii currently imports would amount to approximately $313 million dollars which would remain in the State. The Strategy recommends actions to market "Buy Local/It Matters" and to brand and label local food products. The Strategy emphasizes increasing production by strengthening agricultural infrastructure i.e. agricultural parks, irrigation systems and distribution systems/facilities. It also recommends actions to provide for food safety, pest prevention and control, workforce training, research and extension services, and policy and organizational support. A critical factor towards successful implementation will be building partnerships with the increasing number of organizations involved in food self-sufficiency/ food security.

Agriculture Strategy Working Group: A Strategic Direction for Agriculture in Hawaii 2017

Focused on addressing the following issues: 1) Identify regions to develop economies of scale for the purposes of cost control and price competitiveness; 2) Identify commodities that can replace imports and commodities that will increase exports (i.e., value-added products) based on private distributors; 3) Match commodities with regional pilot project areas to see growth potential; and 4) Create a comprehensive approach to address problems of housing, workforce training, and research.

DBEDT Office of Planning: Hawaii 2050 Sustainability Plan Ten Year Measurement Update (2008-2017) 2018

The Hawaii 2050 Sustainability Plan was published in 2008 in accordance with Act 8, Special Session Laws of 2005. Act 8, Special Session Laws of 2005 requires the State Auditor, with the assistance of the Office of Planning, to update this plan every ten years; due to a lack of funding for the update of this plan, the Office of Planning, through the State's Sustainability Coordinator, conducted an evaluation of the metrics and indicators established by the 2008 Hawaii 2050 Sustainability Plan. This evaluation and measurement was the first of its kind over the past decade. This report reviews the data collected over the course of this ten-year measurement of Hawaii's progress toward sustainability according to the Hawaii 2050 Sustainability Plan's 5 goals, 9 "2020 benchmarks", 22 strategic actions, and 55 indicators.

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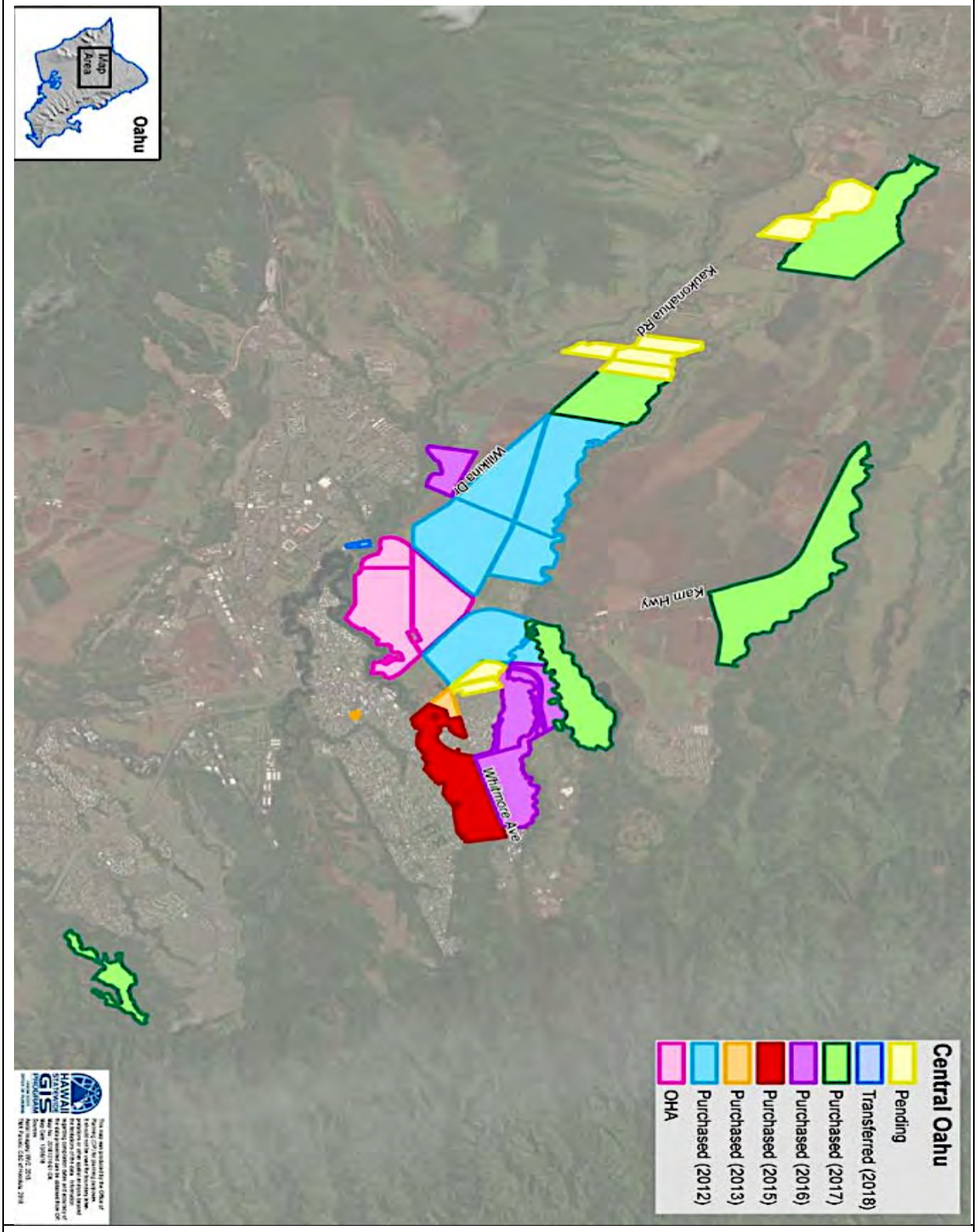
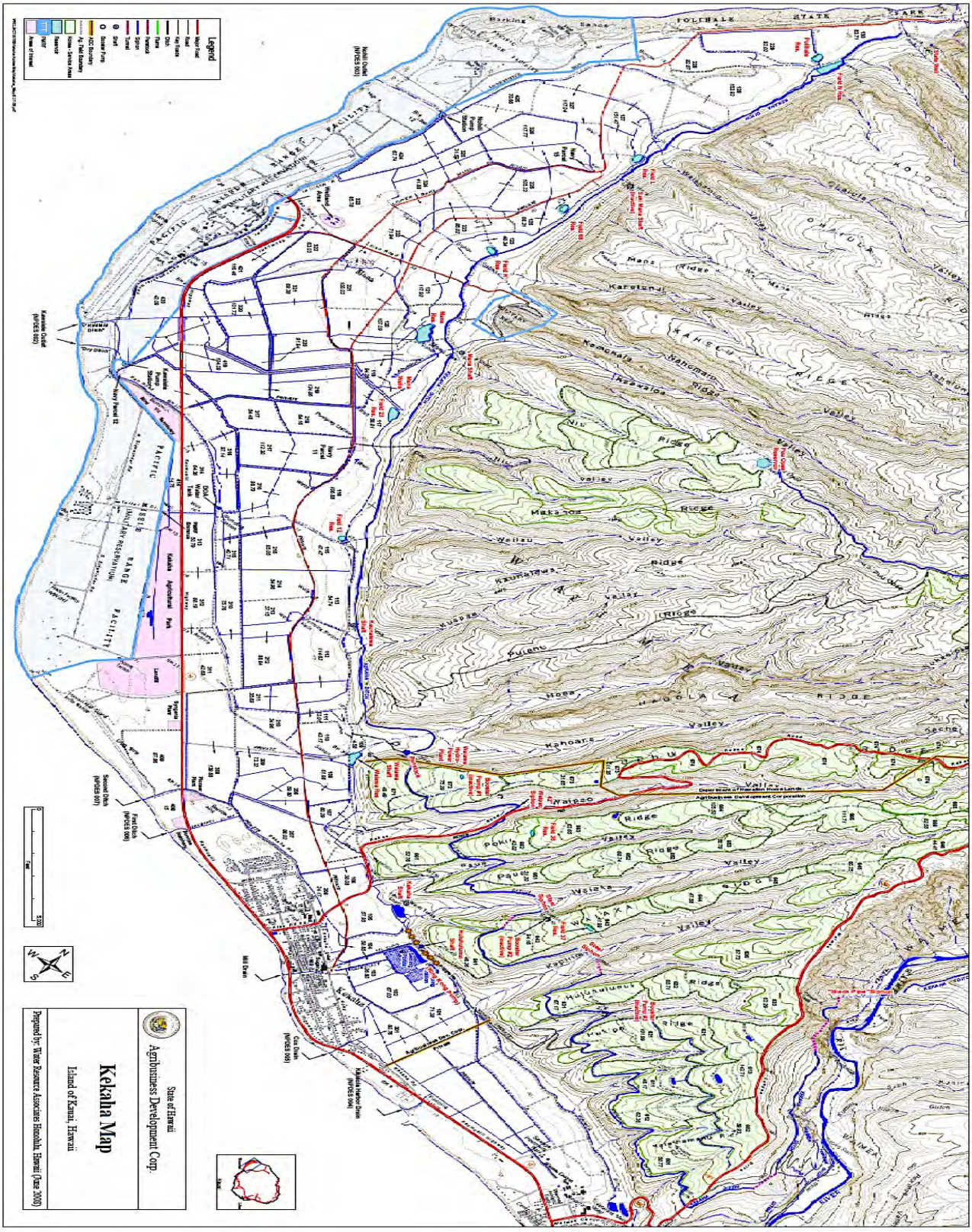
CENTRAL OAHU

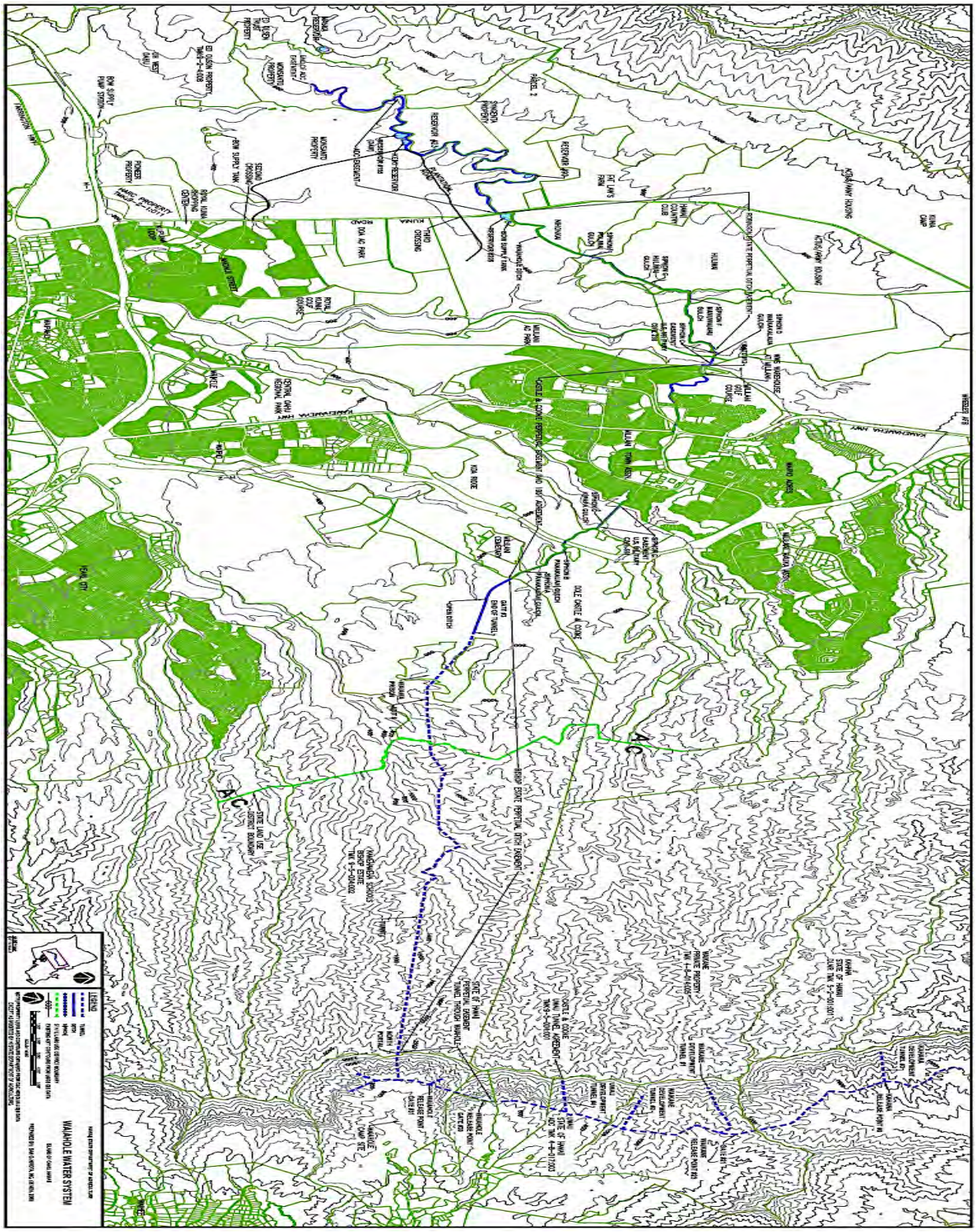


KALEPA, KAUAI

KEKAHA, KAUAI


Legend
Kekaha Map
Island of Kauai, Hawaii
State of Hawaii
Agribusiness Development Corp.
Prepared by: Water Resource Associates Honolulu, Hawaii (June 2008)
Kekaha
Kaumakani Outlet (NPDES 003)
Mana Outlet (NPDES 002)
Kekaha Harbor Drain (NPDES 004)
Gulch Drain (NPDES 005)
Mill Drain
Second Ditch (NPDES 007)
First Ditch (NPDES 006)
Kekaha Agricultural Park
Landfill
Kekaha Pump Station
Navy Parcel 12
Wetland Area
Kekaha Pump Station
Kekaha Water Tank
Power Plant
Power Plant
Kekaha Pump Station
Kekaha Pump Station
Kekaha Pump Station

WAIAHOLE WATER SYSTEM, OAHU


WAIAHOLE WATER SYSTEM
LEGEND
TUNNEL
PIPE
PUMP
RESERVOIR
PUMP STATION
PRESSURE TANK
WAIAHOLE PUMP SITE
WAIAHOLE PUMP
WAIAHOLE PUMP
WAIAHOLE PUMP

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