## Our Cooperative at Work ...



Seventy-five Kapaa residents who live along the system attended a meeting



November 22 our managers and volunteers repaired a flume on Hanamaulu Ditch



Miles of clean and free-flowing ditch serve farmers and enhance our rural environment



This deteriorated 80-foot redwood flume carrying water from Wailua Reservoir to Kapaa over the deep Opaekaa stream ravine was replaced in a CIP project with a pipe.

#### Visit our web site ...

# http://www.eastkauaiwater.org



## East Kauai Water Users' Cooperative

P.O. Box 800 Kapaa, Hawaii 96746 Phone/fax: 808-821-2948 E-mail: jerryornalles@gmail.com

Our Current Board of Directors ...



Left to right: Kelly Gooding; Les Milnes; Jerry Ornellas; Tony Branco; Adam Asquith; Dan Daimond; Lincoln Ching.

## Scenes From Our System ...



This main transmission line flume suffered serious damage during a flood



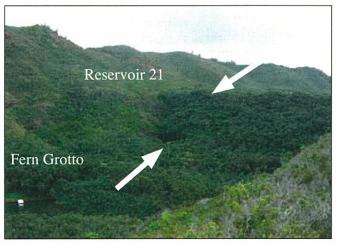
New catwalk and control gates overlooking a drained Wailua Reservoir under repair



Steel supports installed for a piped replacement of a redwood flume at Kapaa stream



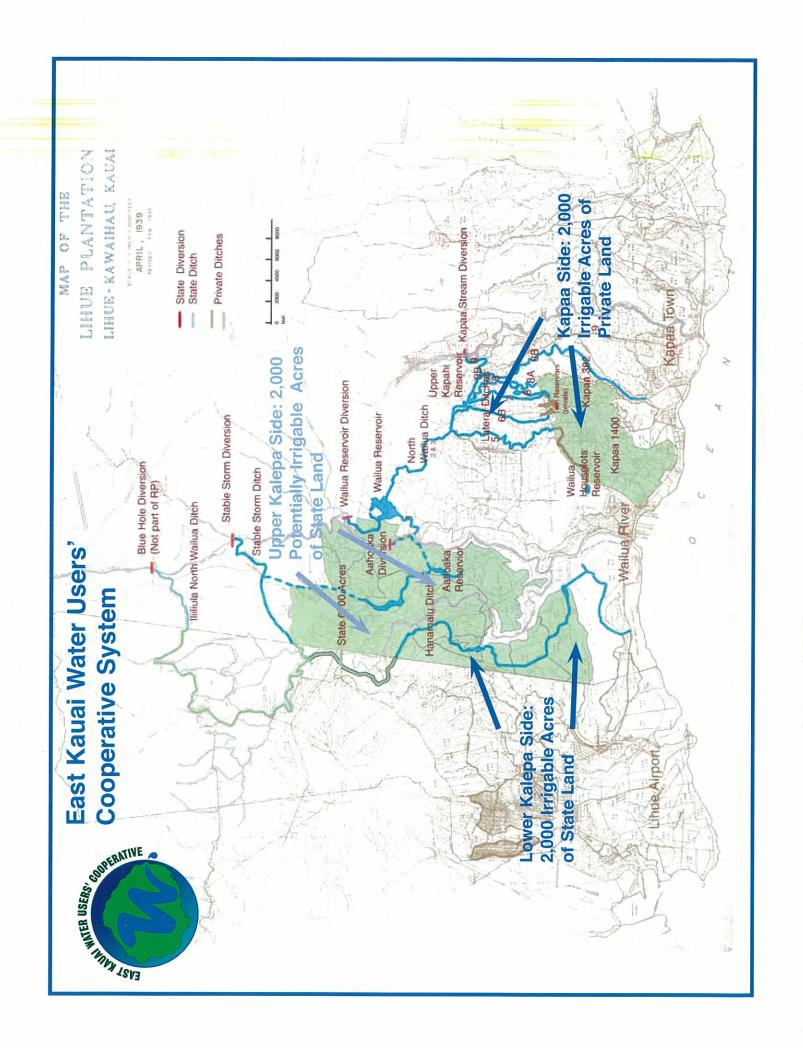
The volunteer crew who fixed it until permanent repairs could be made



View of Fern Grotto, which sits beneath Reservoir 21 behind Kalepa Ridge



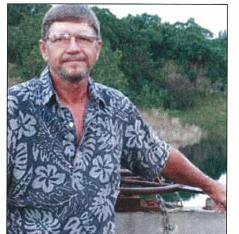
Upper Kapahi Reservoir stores water for use on 2,000 acres of private land in Kapaa



# East Kauai Water Users' Cooperative 2011–2012 Legislators' Update

#### Aloha,

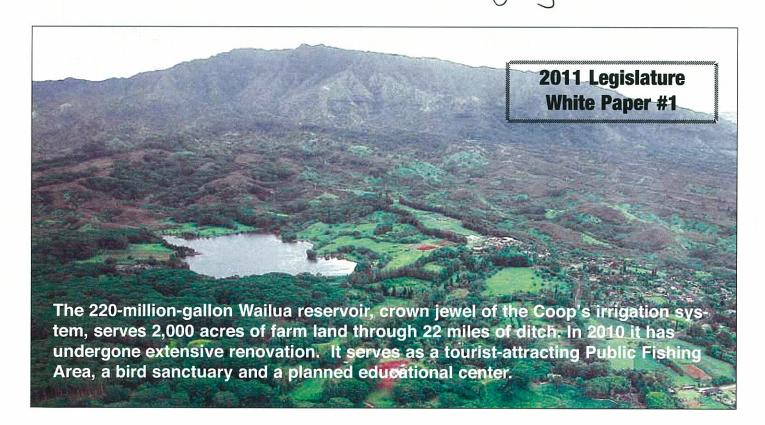
As president of the East Kauai Water Users' Cooperative, I am happy to report that the Cooperative has successfully managed the large State-owned irrigation system in Kapaa and Kalepa since 2002. This system, one of the largest in the State, serves 4,000 acres of State and private land. As of 2011, Several State-financed capital improvements totalling about \$2.6 million, the largest of which is the renovation of Wailua Reservoir, are nearly complete. Under the direction of manager Tony Branco and our field manager, Les Milnes, the system is kept in good operational condition with a team of volunteers and paid workers.



In a December, 2010, meeting with Senator Ron Kouchi, he asked how much volunteer effort went into maintaining the system. Our conservative calculation is \$130,000/year of in-kind voluntary con-

tribution to the system, showing strong community support. The system is today in far better condition than when the Coop took over.

We have prepared for the 2011 Legislature a series of "White Papers" give detailed answers to likely questions about our system and a compelling justification of the State's interest in keeping it functional.





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2011 Legislature White Paper #2

## **Request for System Maintenance Subsidy**

### **Summary**

The annual income of the Coop is insufficient to operate the system, in spite of large volunteer contributions-in-kind. A subsidy of \$50,000 each year to date, with the exception of 2004, has been provided by the State through the Agribusiness Development Corporation to make up the shortfall in funding. Without this subsidiary funding, the Coop will be unable to continue operation of this State-owned system.

## **Explanation**

To benefit the East Kauai Water Users' Cooperative, we are requesting a \$100,000 appropriation for 2011-2013 as part of the Agribusiness Development Corporation administration budget (AGR 161). The money would provide supplemental operation and maintenance funds for the East Kauai irrigation system.

Today we have a total of 33 members with an annual billing of \$25,540. We are providing irrigation water to 750 acres of land, out of a total of 4,000 acres that can be irrigated by the system, and several hundred head of cattle. Coop membership is stable, and water is being delivered in an efficient and reliable manner. Volunteer contributions-in-kind are estimated at \$130,000 for 2010 year.

The East Kauai irrigation system is the only system in the State run by the community. It is an excellent example of State/citizen cooperation in that the citizens benefit from the use of the system and the State benefits directly by the continued supply of water to Fern Grotto and Wailua Reservoir, both dependent on the system. It would cost the State far more than \$50,000/year to operate the system just to preserve Fern Grotto and the Wailua Reservoir.

## **Action Requested**

Provide an allocation of funds by the State legislature of \$100,000 to address deferred maintenance issues on the East Kauai System as part of the Agribusiness Development Corporation administration budget (AGR 161).



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2011 Legislature White Paper #3

## **Budget Overview and Details**

**Summary:** In 2010, the Coop is operated on a cash budget of \$72,960, detailed on page two. \$20,460 was paid in by members, the balance from State and County grants. Volunteer in-kind contributions totaled \$130,000 for the year.

**Explanation:** Water assessment for members is \$120/million gallons for the first ten units enrolled, \$80/million thereafter and \$3/head for cattle. The Associate Membership fee is \$120. For 2011, total member contributions is \$25,540. Volunteer in-kind contributions totaled \$130,000 for the year.

The five State-run irrigation systems cost about \$225,000/year to operate. Our system costs \$72,960 cash plus \$130,000 volunteer contribution for a total of \$202,960, comparable to the cost of the State systems.

At its present level of activity, the Coop is dependent upon government grants and volunteer in kind contributions to make ends meet.

The Coop's system has great potential, as yet unrealized. The community wants this system preserved, as seen by the large amount of donated effort. It is in the best interests of the State to continued its assistance.

#### **Action Required:**

The Coop needs \$100,000 for 2011-2013 State subsidy to continue operations.

(see other side)



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2011 Legislature White Paper #4

## **Coop Volunteer Contributions**

### **Summary**

Since its inception, the Coop has been largely run on a volunteer basis. Our volunteers, whose contributions in kind are estimated to be worth \$130,000 for 2010, are the main reason our cash operating expenses (\$73,000 for 2010) are far below those of State-run systems of similar size (average of \$250,000/year).

#### **Explanation**

Past and present directors and members of the Coop have contributed thousands of hours to create and sustain the Coop. The initial formation, beginning with a Farm Bureau meeting facilitated by Donna Ching in 2001, led to three years of sustained effort by the Board to work through dozens of agencies at all levels of government until gaining a revocable permit for the system.

Leaving that early effort aside, an analysis of the current amount of volunteer work on the system is \$130,000 for 2010/year. Page two of this white paper contains a detailed breakdown of this estimate.

Volunteer work includes: system management, equipment donations, base yard donation, pro-bono legal representation, and the many individual efforts by members to maintain and improve the ditches that pass through their property.

#### **Action Requested**

While volunteer help is critical to the on-going success of the system, and the preservation of this valuable State asset, paid employees are necessary for the upkeep.

(please see other side)



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2011 Legislature White Paper #5

# **State-Run Irrigation System Summary**

## 1. Economics of the State's Five Systems under DOA

The State Department of Agriculture runs five systems, two on Oahu, two on the Big Island and one on Molokai. Each costs about \$225,000 per year to operate and employs three people. In fiscal year ended 6/30/2010 the systems were:

	length (miles)	water capacity (gal/year)	acres served	number of users in 2001	fees paid
<b>Oahu</b> Waimanalo Kahuku	15 3	125,000,000 53,430,000	1,096 396	80 24	\$59,998 \$25,690
Molokai	25	1,009,847,000	2,702	180	\$458,619
<b>Big Island</b> Waimea Hamakua	25 25	307,200,000 38,500,000	692 6,479	125 81	\$124,404 \$21,884

According to Paul Matsuo, former administrator of the Division of Agricultural Resource Management for DOA, from 1988 to 2000, when he administered these five systems, "the two where revenues exceeded expenses were the Molokai and Kahuku systems. However, in 2001, all the system's revenues were not meeting expenses for several reasons, such as prolonged drought, 9/11 disaster deferral of irrigation billing and the start up of several new irrigation systems where there is very little revenue."

According a study done by Paul Matsuo contracted by government agencies, the East Kauai irrigation system was one of five systems (other than the five State systems above) which should be preserved.

(see other side)



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2011 Legislature White Paper #6

# **Future Potential of East Kauai Irrigation System**

## **Summary**

The East Kauai system is a State resource worth hundreds of millions of dollars and capable of irrigating 4,000 acres of prime agricultural land. The State has recently invested \$2.6 million dollar in capital improvements to the system. We believe the prospects of developing this land for diversified agriculture are excellent, and that it will provide a measure of economic independence to many local farmers.

### **Explanation**

The East Kauai Water Users' Cooperative system, one of the largest in the State, can irrigate 4,000 acres of prime agricultural land. Half of the land is State owned (the Kalepa lands currently served by the Hanamaulu ditch and potentially served by a piped system-see White Paper #7), half is private. For the last 80 years the sugar company profitably utilized this land. They, in fact, monopolized all of the area's good agricultural land, relegating farmers to secondary parcels. With this prime land finally available, we are in a time of transition to diversified agriculture. The Coop is optimistic. We see local farmers expanding operations and developing new ones to utilize this land. On a state-wide basis, our system is one of the few not already being used at maximum capacity for irrigation, presenting an opportunity for major growers from other islands to expand here as well. The transfer of the Kalepa State lands to ADC opens up new possibilities for development of agriculture, including a much-need ag park.

Farming requires three elements: farmers, land and water. The land and water are available. We have to give the farmers and ranchers time to fully utilize them. Irrigation systems on other islands have been abandoned after sugar failed. Those systems are now unrecoverable, as is the economic potential of the land once irrigated. We have worked hard for ten years to keep our system on Kauai working, because we live here and depend on it. We do not want to lose the complex infrastructure or the opportunity for economic development.

## **Action Requested**

Join us in preserving this valuable irrigation system and promoting economic independence and diversity for East Kauai.



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2011 Legislature White Paper #7

# **Major Potential of Kalepa Land Irrigation**

## **Summary**

The likely siting of the new landfill for Kauai on the State Kalepa lands irrigated by the Water Coop has presented a major opportunity. In exchange for removing some 200 acres of irrigated land permanently from farming, the county is open to funding a piped irrigation system to serve all 4,000 acres of Kalepa, greatly increasing the land's farming potential.

### **Explanation**

Kauai is running out of time to develop a new land fill. Of all the sites available on the island, one of the most logical is located on the Kalepa land serviced by the Coop. While it is unfortunate that good irrigated farm land is likely going permanently into a land fill, the Coop is not opposing the plan. The county has responded favorably to a Coop proposal to create a piped irrigation system servicing most of Kalepa. Such a system was identified early on in a study by ITC as a feasible use of the existing Stable Storm Diversion which is part of the Coop's RP. The system, estimate to cost about \$4.5 million, could deliver about three million gallons a day of pressurized water, which would provide drip irrigation for diversified agriculture.

#### **Action**

The landfill, despite its urgency, is a long-term project, requiring many permits and agreements at all levels of government. We request cooperation of our legislature with the county's efforts, encouragement for the county to follow through with financing the piped irrigation system and exploration of matching funds when the project is near to implementation.



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2011 Legislature White Paper #8

# **Strengths, Weaknesses, Opportunities and Threats**

### **Strengths**

- 1. State constitutional mandate to provide water for agricultural use at reasonable costs.
- 2. A large system capable of irrigating 4,000 acres of ag land.
- 3. The system is under utilized and has great potential for expanded ag activity.
- 4. The system is essential to the continued health of Fern Grotto, a major tourist attraction, Wailua Reservoir, Upper Kapahi Reservoir and other important features.
- 5. Continued hydration of perennial streams and esthetic benefit to the community.

#### Weaknesses

- 1. The system is under utilized.
- 2. The system is under a Revocable Permit with a long-term water license remaining in the distant future due to complex, State-level legal issues about water rights.

#### **Opportunities**

- 1. Vast areas of service are available.
- 2. Development of increased ag activity on the Kalepa lands.
- 3. Mini-hydroelectric generation.
- 4. Increased self-sufficiency and food security for Kauai

#### **Threats**

- 1. Loss of government grants.
- 2. Damage from major hurricanes
- 3. Legal challenges to the diversion of water



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2011 Legislature White Paper #9

# **How Does the Coop Benefit Kauai?**

- 1. Provides water service to 33 agricultural producers.
- 2. Provides water service to 273 **TMK lots** in the Kapaa area, thereby increasing their value.
- 3. Changes several streams, such as Kainahola, from annual streams dependent upon rainfall to **perennial streams** with water constantly flowing in them, likewise increasing the value of the adjacent lots.
- 4. Distributes water from the North Fork of the Wailua River and from Kapaa Stream across the greater Kapaa area, providing additional water equivalent to **30 inches of rain** a year.
- 5. Creates **animal habitats** along its conduits and in the marsh area of the large parcel below Olahena Road which would otherwise periodically dry up.
- 6. Wailua Reservoir is at a high enough elevation to be piped to Kapaa town and have enough pressure to create **drinking water** through an osmosis filter without pumping. The Kauai department of water engineers consider this an excellent long-term potential.
- 7. **Wailua Reservoir** is a tourist attraction, prime public fishing area, possible education center and deeply appreciated local resource.
- 8. **Fern Grotto** is kept wet from the flow of Hanamaulu Ditch which ends just above it. Without the ditch, the grotto would become a dry cave, as happened when Hanamaulu Ditch was shut down in 2001, just before the Water Coop took over the system and restored the flow.
- 9. The Kalepa lands irrigated by the Coop's system are the largest under utilized State **irrigated agricultural land** in the islands. They are a tremendous resource for the future.
- 10. The Farm Bureau is developing an incubator project on the Kalepa lands for training papaya farmers and eventually reopening the **papaya** processing plant.
- 11. The system has some **mini-hydroelectric** potential, especially at Wailua Reservoir. 12 Modulates **flood** waters during heavy rain.
- 13. **Upper Kapahi Reservoir** is a prime attraction of the adjacent lots, increasing their value.