



Ditch Systems Related to the ADC Kalepa Lands, Kauai

ADC Kalepa Lands encompass approximately 6,500 acres, shown above in light red. The lower portion of the ADC Kalepa lands outlined and tinted in light blue at middle right of the above map are presently irrigable by the lower reaches of the Hanamaulu Ditch. This is a total of about 800 acres, of which 300 are being actively farmed now and part of which is proposed for a new landfill.

Currently, the only surface irrigation water conveyance ditch system serving the 800 acres is the Hanamaulu Ditch. The water in Hanamaulu Ditch is sourced from the Hana-

maulu Ditch Diversion situated on the Wailua River South Fork on adjacent Grove Farm property.

Multiple diversions, starting with the Blue Hole diversion on the Wailua River North Fork and Waikoko Stream diversion, both on State land (at upper left), along with multiple diversions on Grove Farm land along the Iliiliula North Wailua Ditch and then the Waiahi-Iliiliula Ditch are water sources conveyed to the Upper powerhouse.

The collected water flows from the Upper Powerhouse

to the Lower Powerhouse mostly by tunnels, then is discharged in Waiahi Stream from which it is partly diverted into the Upper Lihue Ditch which in turn services farm lands all the way to Puhī. Waiahi Stream continues on and merges as a tributary with the Wailua River South Fork. Water is again diverted at the South Fork Diversion downstream into the Hanamaulu Ditch which flows across Grove Farm land.

Part of Hanamaulu Ditch (as well as Upper Lihue Ditch) can feed Kapaia Reservoir. Hanamaulu Ditch then cross-

es into the ADC Kalepa lands, flowing at a lower elevation than the adjacent fields until it crosses Maalo Road from which point onward it is capable of irrigating most of the 800 acre fields makai.

At the bottom, far east, of the Kalepa lands, the Hanamaulu Ditch fills Reservoir 21 (on top of Fern Grotto). From Reservoir 21, there is a tunnel under Kalepa Ridge heading makai, easterly, which presently conveys water (and has for the last 17 years) to the DHHL lands adjacent to Kuhio Highway.



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White Paper

Blue Hole Diversion and East Kauai Ag Lands

Summary:

The discussions to date regarding the KIUC application to divert water at Blue Hole and Waikoko Streams for power production fail to encompass the impact on existing irrigation systems on State Kalepa lands downstream of the power houses. No proposal being put forth ensures the continued operation of this system servicing hundreds of acres of prime ag land, and being necessary for the supply of water to the adjacent DHHL lands.

Explanation:

The East Kauai Water Users Cooperative holds a Revocable Permit from DLNR for the Hanamaulu Ditch on the ADC administered "Kalepa Lands" between Lihue and Kapaa and behind Kalepa Ridge. Hanamaulu Ditch is capable of irrigating about 800 acres of the prime farming area of these lands, of which 300 are presently being farmed. In addition, the Coop supplies water via Hanamaulu Ditch to Reservoir 21 and through a tunnel to the DHHL lands to the east of Kalepa Ridge and adjacent to Kuhio Highway.

The Hanamaulu Ditch originates at a diversion where the Waiahi and Waikoko Streams meet on Grove Farm land to form the South Fork of the Wailua River. The diverted water includes the natural stream flow, water from the Blue Hole and Waikoko diversion on State land, and numerous diversions on Grove Farm land.

The ditch flows on Grove Farm land for about a mile, in the process providing water to Kapaia Reservoir and ag lands along the way, before entering the ADC Kalepa Lands. The Coop has an agreement with and pays Grove Farm \$1800 yearly to convey water to Hanamaulu Ditch. The ditch flows for some distance on the ADC land at an elevation lower than most, but not all, of the adjacent fields. Once it crosses Maalo Road it becomes able to irrigate about 800 acres of the ADC lands, plus the DHHL lands.

The study by the Commission on Water Resource Management of the Blue Hole and Waikoko diversions largely overlooks the Hanamaulu Ditch and the likely consequences of a changes in the Blue Hole and Waikoko diversions upon the ADC lands. The impact on the DHHL lands was mentioned, but not in the context of how the diversion and conveyance of water to those lands was going to be possible without Grove Farm operating the diversion and first mile of the ditch and the Coop operating the remaining ditch until Reservoir 21.

Action Requested:

The present deliberations regarding the KIUC water license must take into account the continued supply of water to the State ADC Kalepa lands. A failure to do so will not only leave hundreds of acres of prime ag land without irrigation potential, but likely make impossible the conveyance of water to the DHHL lands at the end of the existing system.



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Dec. 11, 2018

TO: Suzanne Case, Chair
Board of Land and Natural Resources
State of Hawaii

RE: **Coop Water RP Renewal with regard to DHHL Reservations**

Aloha Chairperson Case:

As detailed in the staff submittal for item D-13, it is expected that legislation will again be introduced this session for the Department of Agriculture to take over management of the East Kauai irrigation system which includes Wailua Reservoir and Upper Kapahi Reservoir. The Coop is vigorously working to get this legislation passed.

In addition to East Kauai, the Coop services the ADC "Kalepa lands" behind Kalepa ridge utilizing the Hanamaulu Ditch. The CWRM staff reports and meetings regarding KIUC's Blue Hole diversion permit have not to date encompassed the service of water to these ADC lands, but only discussed Hanamaulu Ditch in terms of water reservations for the DHHL lands at the very end of the system (reservations we fully support).

Presently water in the South Fork is diverted on Grove Farm land into the Hanamaulu Ditch. It is first utilized by Grove Farm, then the ADC lands and finally, through Reservoir 21, the DHHL lands—see attached map to understand this complex system.

If KIUC is not granted a permit for their hydro use, the amount of water available in the South Fork will be substantially reduced. The obligation of Grove Farm to divert water for either ADC or DHHL land use might then fall into question—a key issue which has yet to be addressed. If the permit is granted for Blue Hole, then the diversion of water into the Hanamaulu Ditch must be addressed and a continued supply to both the ADC lands and DHHL lands assured in the process.

Jerry Ornellas
President, East Kauai Water Users Cooperative

Attachments: Water system map; EKWUC white paper