

Aia Ka Wai a Kāne i Wai'awa / Mānā / Kekaha Past, Present, Future



Mālia Kahale'inia Chun

Papa Ho'okahua

NREM 491

Vaughn

I ka pae 'ōpua I ke kai, ea mai ana ma
Nihoa, ka mole o Lehua, aia I laila ka wai a
Kāne.



Where the cloud forms rest on the ocean's breast, uplifting
their forms of Nihoa, this side the base of Lehua,
there is the water of Kāne

Aia I ke kuahiwi, I ke kualono, I ke awawa, I
ke kahawai, aia I laila ka wai a Kāne.



Yonder on the mountain peak, on the ridges steep,
in the valleys deep, where the rivers weep,
there is the water of Kāne.

Aia I ka moana, I ke kualau, I ke 'ānuenue, I
ka 'ālewalewa, aia I laila ka wai a Kāne.



Yonder, at sea, on the ocean, in the driving rain, in the heavenly bow,
in the ghost-pale cloud form,
there is the water of Kāne.

Aia ke 'ouli, I ke ao 'ele'ele, I ke ao
panopano, I ke ao popolo hua mea a Kāne
la, e! Aia I laila ka wai a Kāne.



In the heavenly blue, in the black, piled cloud,
in the black mottled sacred cloud of the Gods,
there is the water of Kāne.

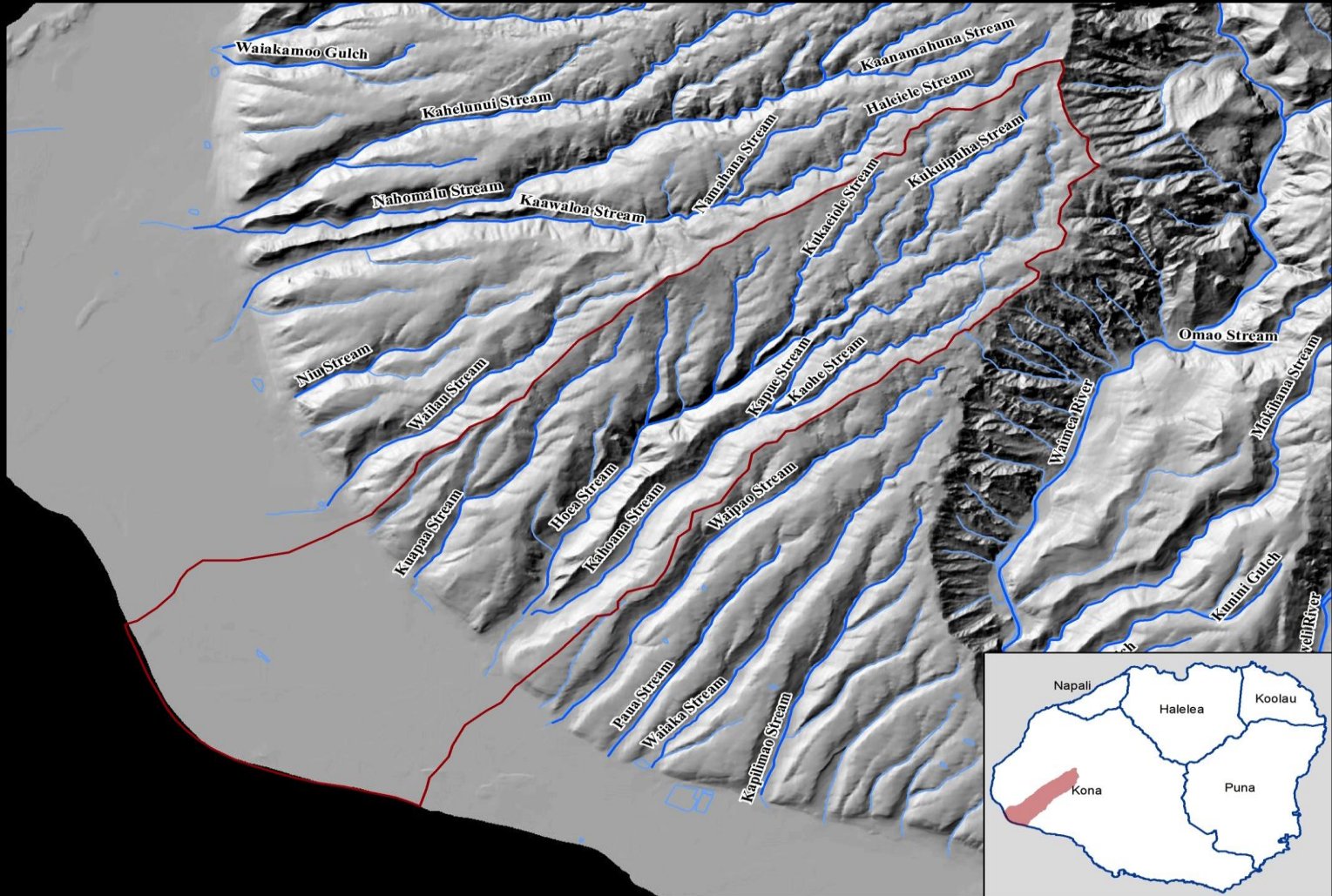
Aiai lalo, I ka honua, I ka wai hū, I ka wai
kau a Kāne me Kanaloa, he waipuna, he wai
inu, he wai mana, he wai e ola, e ola nō, ea!

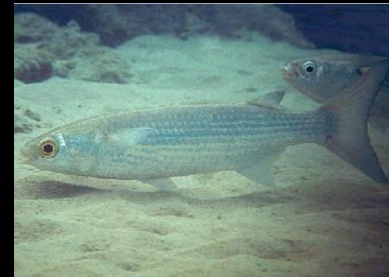
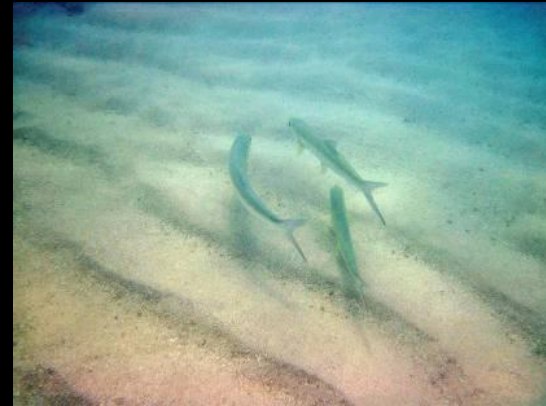


Deep in the ground, in the gushing spring, in the ducts of Kāne and Kanaloa,
a well spring water, to quaff, a water of magic power- the water of life!
Life, o give us this life!

Wai'awa / Mānā / Kekaha

PAST





- 4 Inland fishponds: Kawai'eli, Kolo, Nōhili, Limaloa- supplying 'o'opu, moi, 'anae, awa, 'o'io, weke.
- Hard wood trees: koa, Kauila, milo, 'iliahi.



Photo: Taken about 1916 A. F. Knudsen and Miss Smith, on the Mānā shore below Pōkiʻi, west of Kekaha.

- Birds: 'āe'o, 'alae'ula, kōloa.
- Gardens: squash, gourds, melons, coconut, 'uala, kalo.





‘Ōlelo No‘eau:

- Ola I ka ‘aiuahī‘ole ke kini o Mānā- The multitudes of Mānā that live on food cooked without smoke.
- Mānā, where the mounded taro moves in the water.
- Hō‘ale‘ale Mānā I ke kaha o Kaunalewa- Mānā ripples over the land of Kaunalewa.
- ‘Ikea mai la o Mānā, ua hā‘ale I ka wai li‘ulā- Mānā notices the waters of the mirage.

Kekaha Sugar Co. 1878



Photo: Taken before 1878, before Kekaha Sugar Co. was established.

Kekaha Sugar Co. 1878

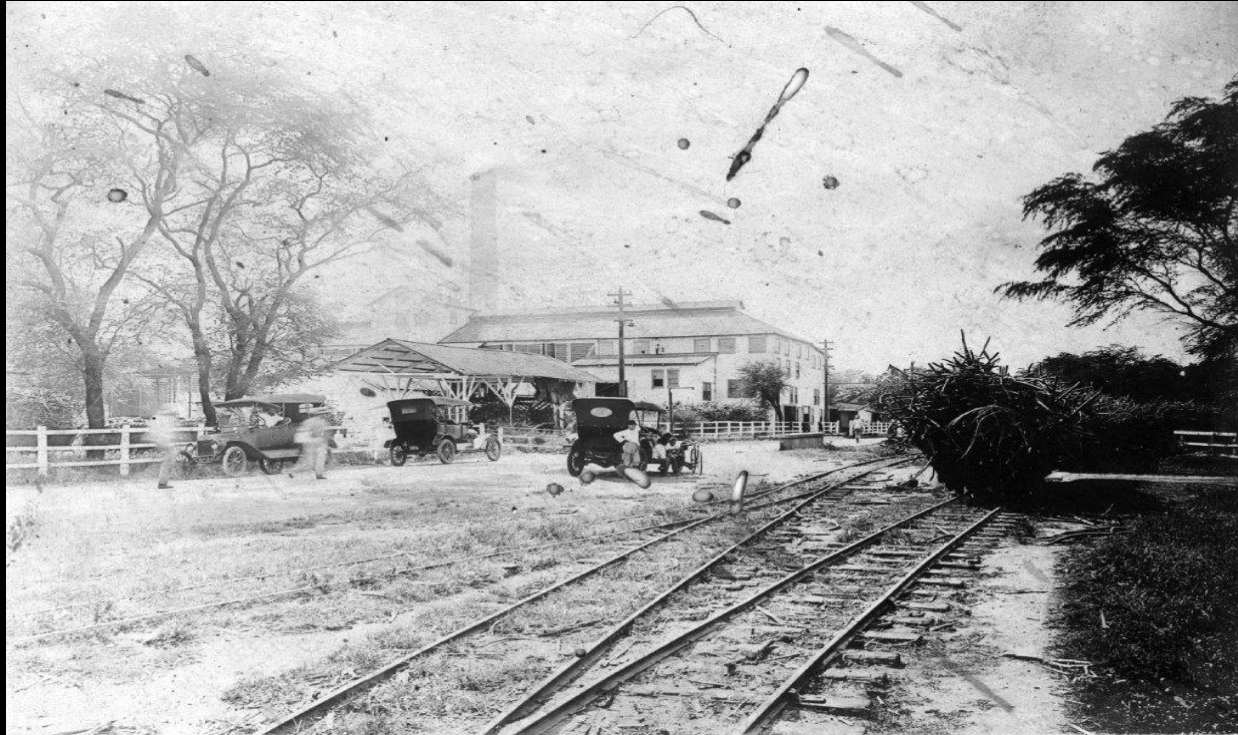


Photo: Taken in around 1878, As Kekaha Sugar Co. and Rail is just established

- Valdemar Knudsen, Christian L'Orange, Hans P. Faye
- Built wells above natural springs
- Dug immense irrigation systems (Kekaha Ditch).
- Filled in swamp lands
- Created major water diversions from Alaka'i Swamp, Koaie and Waimea rivers.

Wai'awa, Mānā, Kekaha

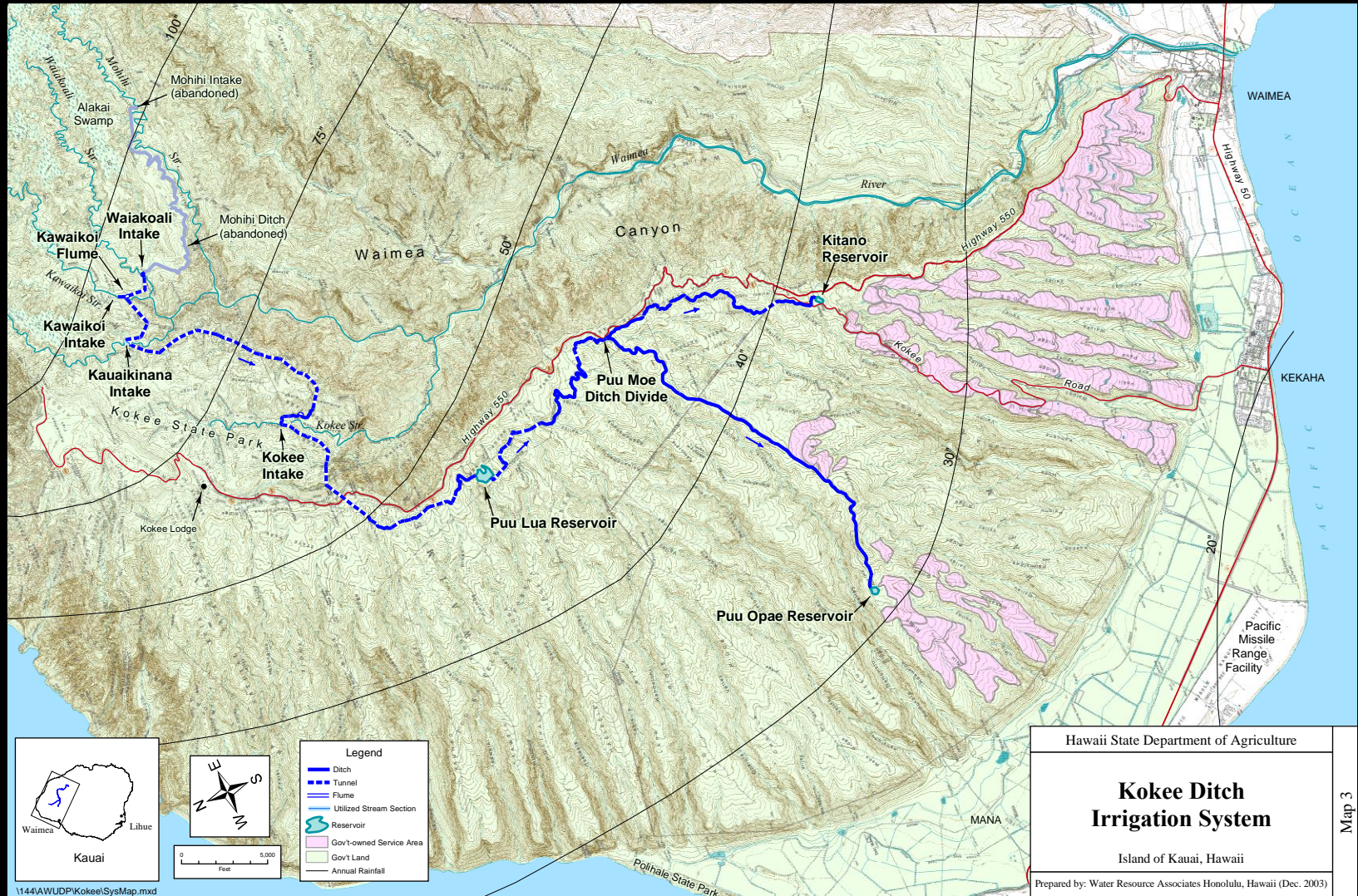
Present



The complex irrigation systems that diverted massive amounts of water for sugar cane production between the late 1800s to the 1990's, now flow through ADC, DHHL and Private lands. The majority of these lands are now leased to chemical ag. corporations to water test fields for seed production.

Wai'awa, Mānā, Kekaha

Present



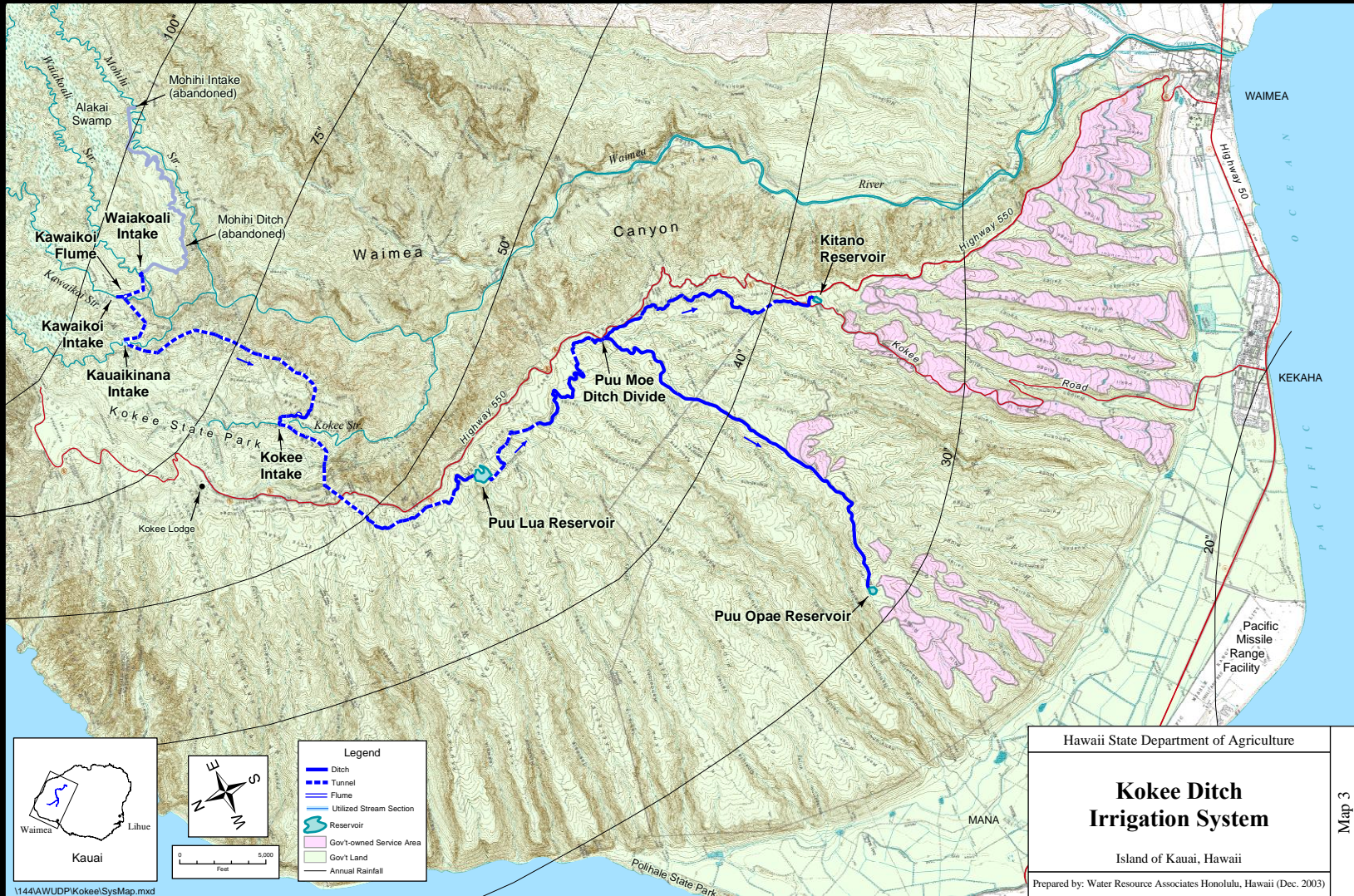
Koke'e Intake / Waipo'o



The journey of the waters of Wai'awa, Mānā, Kekaha and Waimea begin in Wai'ale'ale, Alaka'i and Koaie. The first accessible intake is the Koke'e Intake near Waipo'o (which is NOT a natural occurring waterfall). This intake is fed by Waikoali, Kawaikō'i, Kawaikīnana. Waipo'o falls occurs when there is an overflow at this intake. This overflow feeds Waihulu and Waimea.

Wai'awa, Mānā, Kekaha

Present



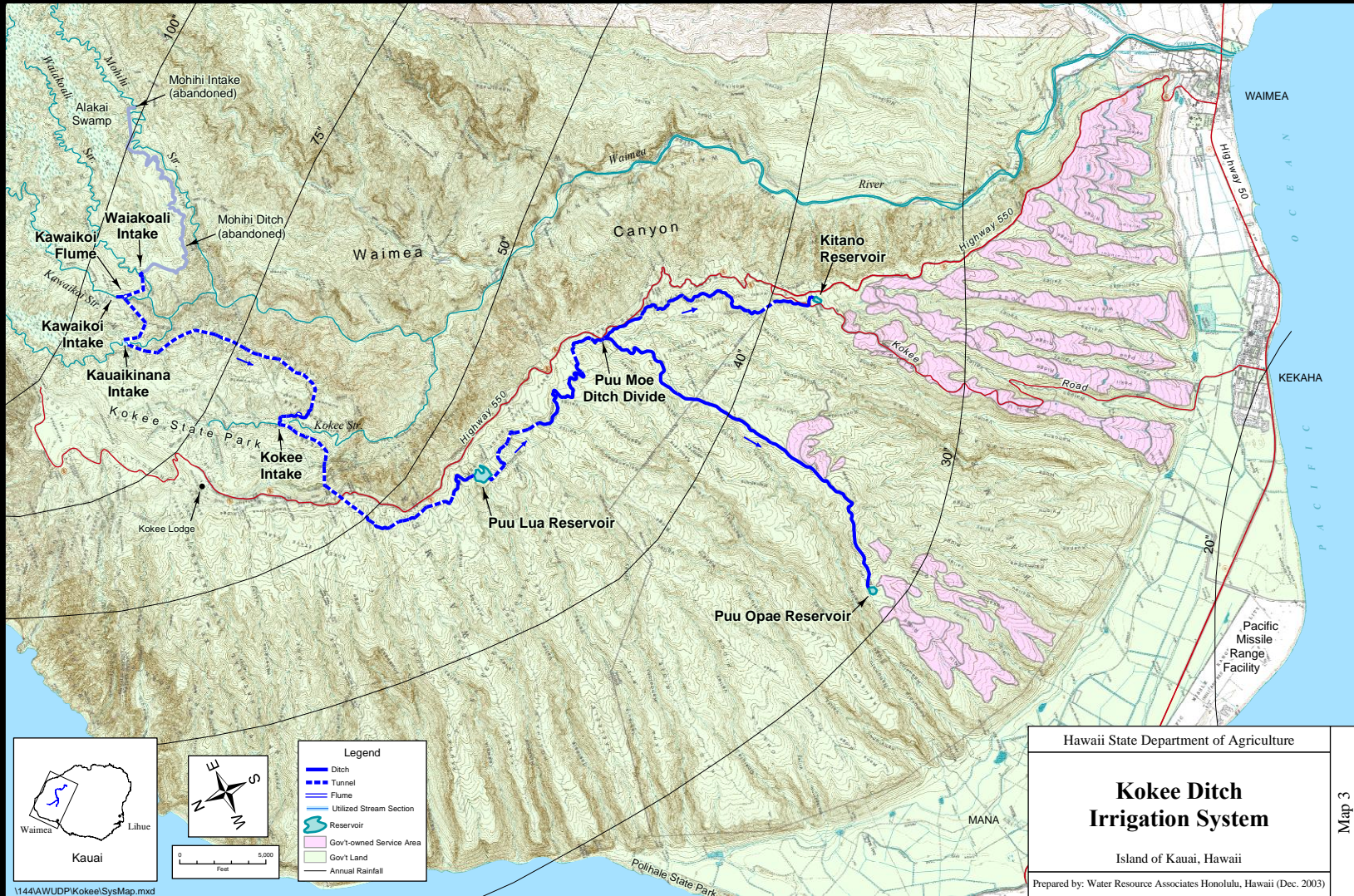
Pu'u Lua Reservoir



From the Koke'e intake at Waipo'o, water is fed into the Pu'u Lua Reservoir Which is also known as the Koke'e ditch line. This ditch line runs along Koke'e road and is the main ditch line that feeds the other reservoirs below.

Wai'awa, Mānā, Kekaha

Present



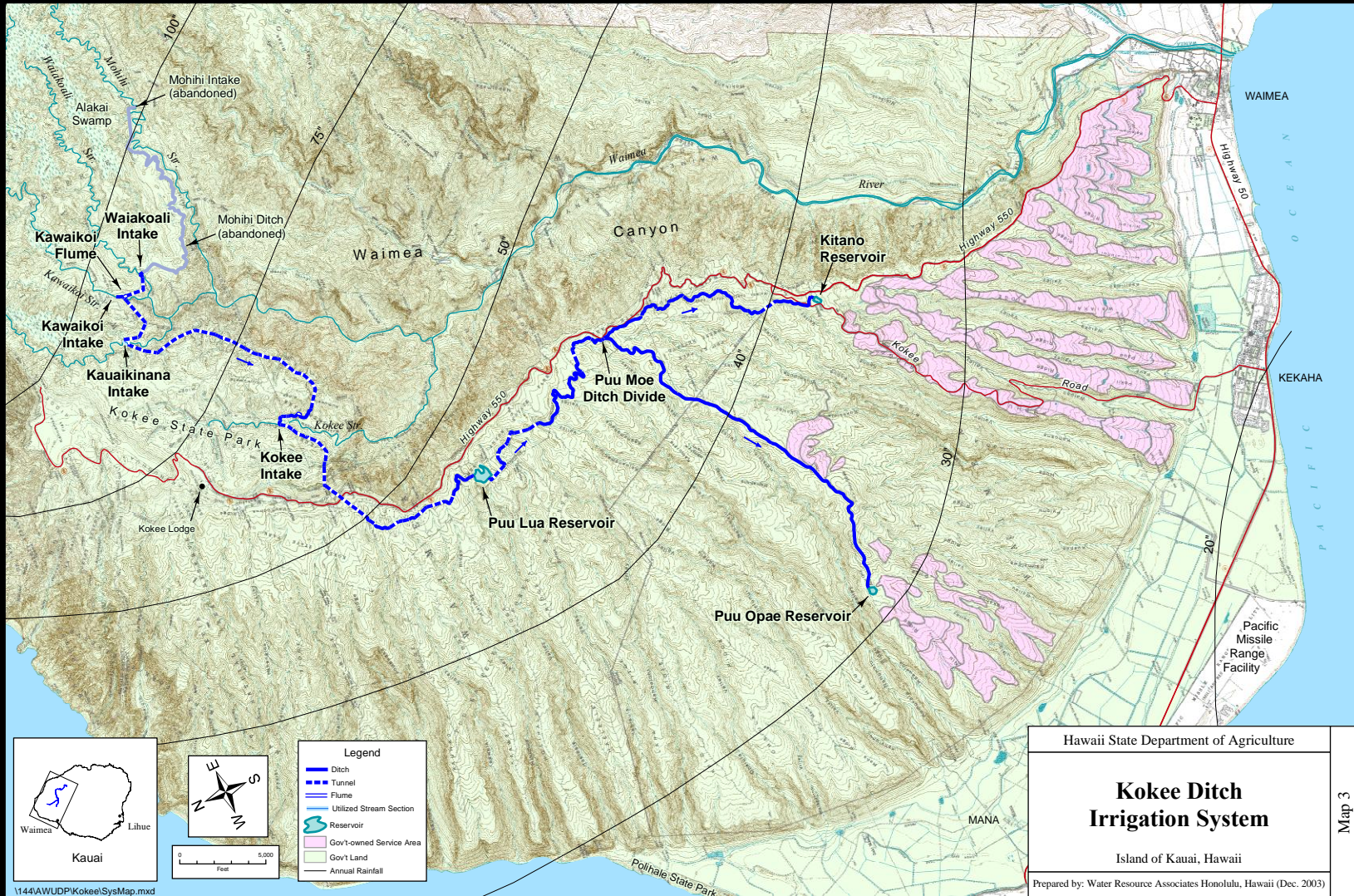
Pu'u Moe Divide



At the Pu'u Moe divide the majority of the water continues to flow into the Pu'u Lua ditch line and a small fraction of that water turns west into the Pu'u 'Ōpae Reservoir. The full water flow to Pu'u 'Ōpae has not been restored because the Pu'u 'Ōpae dam does not currently meet safety standards.

Wai'awa, Mānā, Kekaha

Present



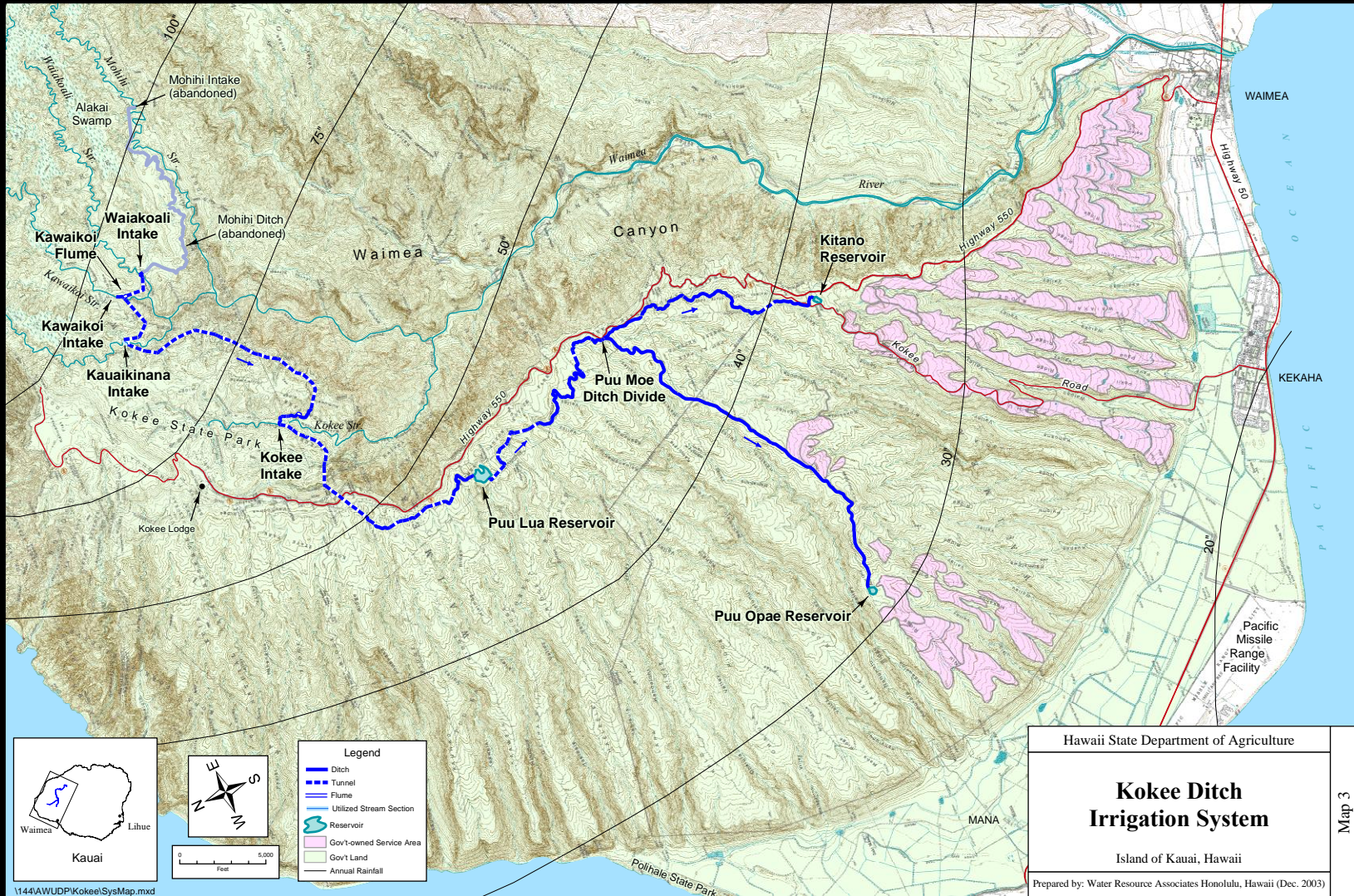
Pu'u 'Ōpae Reservoir



Pu'u 'Ōpae is designated as Hawaiian homestead ag. lands. and is part of the ahupua'a of Wai'awa. I followed this ditch line as far as I could. What I found was an 'auwai that was poorly maintained with minimal water flow. As I continued, I found that that water had been piped. There were 2 pipelines, one continued on toward Pu'u 'Ōpae. The second led to the Manini 'ohana farm lands. This is the site of a proposed hydro plant.

Wai'awa, Mānā, Kekaha

Present



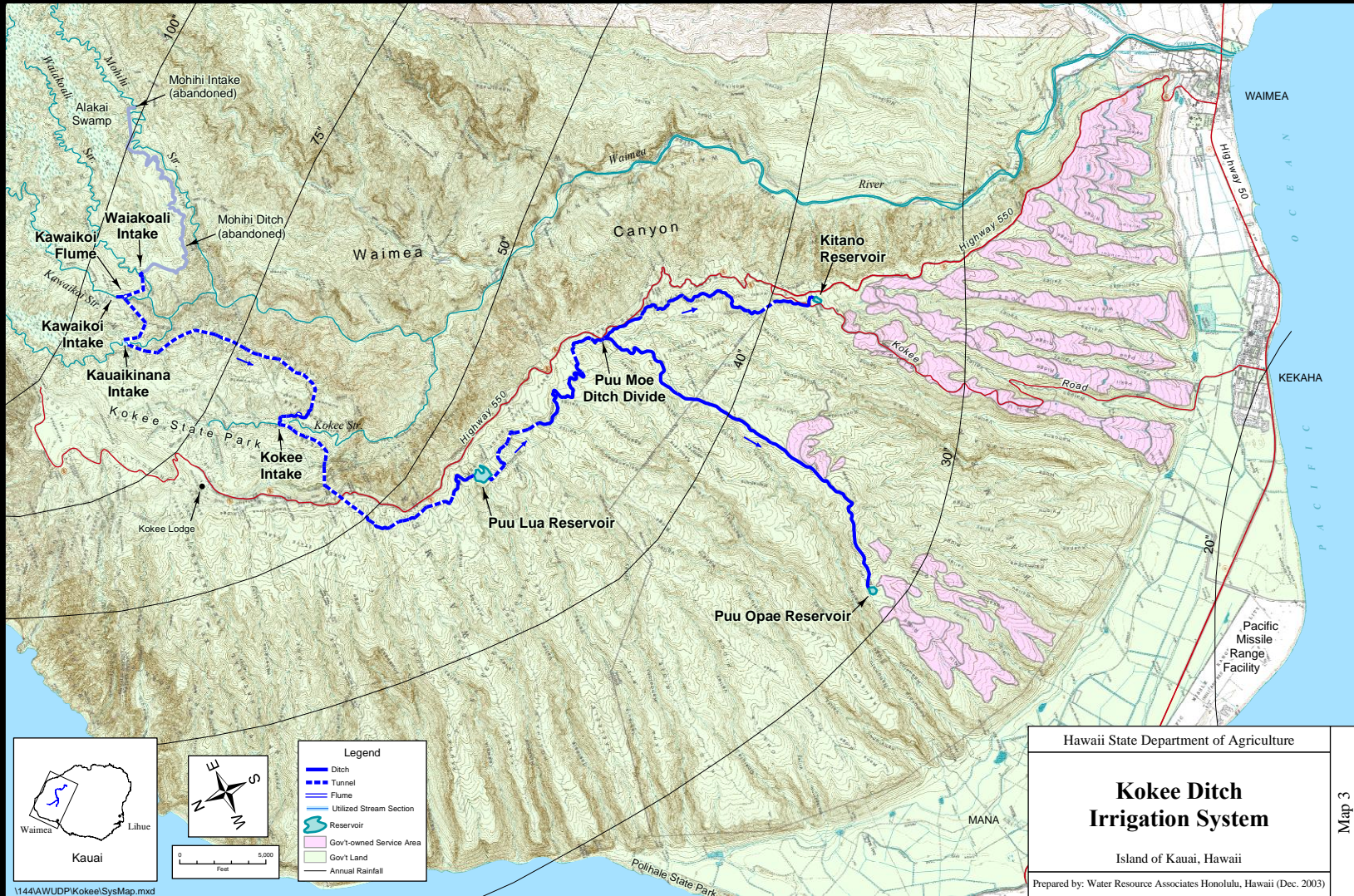
Kitano Reservoir



Going back to Koke'e Rd., we followed the main Pu'u Lua ditch line that forked east toward Waimea. At the Kitano divide we discovered that the water that once fed ADC mauka lands had been totally cut off and all water flow headed toward Waimea. When we located Kitano Reservoir, what we found was a reservoir that had been drained and abandoned for about 20yrs.

Wai'awa, Mānā, Kekaha

Present



Waimea



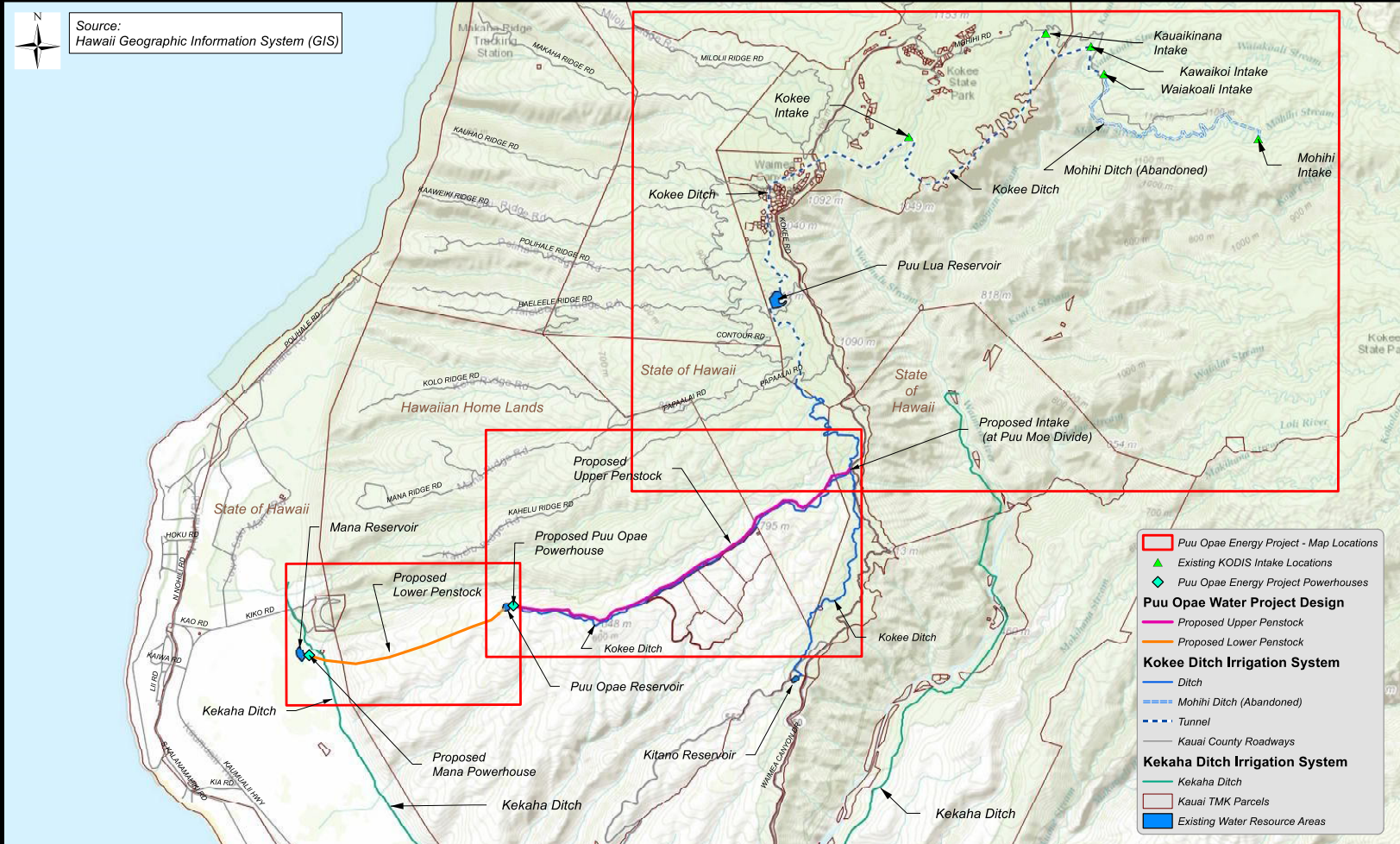
We continued our journey down the Waimea fork of Koke'e road and followed the ditch line. A portion of the water that once fed Kitano Reservoir from Pu'u Moe now turns east towards Waimea.

Waimea / Mānā



As we followed the ditch line ma kai we found a pipeline that diverts water from that ditch down towards Waimea River, while the rest of that water is diverted West towards Mānā. It seems the control of this waters direction and flow volume is controlled by a pipe located near the diversion.

Wai'awa, Mānā, Kekaha, Pu'u 'Ōpae Future



Wai'awa, Mānā, Kekaha

Future

KIUC West Kaua'i Hydro Plan

Slated to be completed within the next 5 years

Questions for Dawn L. Huff, Hydrologist and Ecologist for Joule Group LLC, Bellingham Washington:

- **Approximately how much water will be used for the hydro?** Not known
- **Will any of it be displaced?** No water will be displaced, it is important to know that this is a dual purpose project: it's a hydro instillation and irrigation maintenance project.
- **How much renewable energy will be produced?** We are projecting anywhere between 12-25 megawatts, it will drop about 3, 000 feet, generating most of its energy without much water. This is the greatest benefit of having this renewable energy source in Koke'e and on the west side.
- **Who will benefit from this energy?** Everyone on Kaua'i will benefit, it will go directly to the KIUC grid.
- **Will you be tapping into an existing ditch line, if so, which one?** Yes, we will be taking over the repair and maintenance of the entire ditch line from the Pu'u Moe Divide.
- **Who will be responsible for maintaining the ditch line?** Joule Group LLC.

Wai'awa, Mānā, Kekaha

Future

KIUC West Kaua'i Hydro Plan

Questions Part 2:

- **Will the hydro power house and substation be located on Hawaiian Homestead lands? If so, how will Hawaiian homesteaders benefit?** Yes, that land will be leased from DHHL for the powerhouse, reservoir and easement. It is proposed that we will upgrade and maintain the road to Pu'u 'Ōpae, deliver water, upgrade and maintain reservoir and provide a power source for homesteaders.
- **Will any native vegetation/animals be displaced in the building of the hydro?** There will only be displacement of a few trees in the restoration and maintenance of the dam and ditch. We are proposing a watering hole in dry spots.
- **Will water flow to Pu'u 'Ōpae and Hawaiian Homestead Ag. Land increase due to the hydro project / maintenance of ditch line?** Yes, it will improve and increase.
- **Do you know that Waimea/Makaweli farmers currently have a lawsuit against the Dept. of Water for not returning adequate water flow to the streams?** Yes, it is currently in mediation. We feel hopeful that it gets resolved in mediation and are very active in the conversation. It is important to us to try to restore stream flow for ecological and cultural purposes.
- **Who currently owns the ditch line?** ADC owns entire Koke'e Ditch line and Kekaha Ag. Association is responsible for the maintenance of both Koke'e and Kekaha ditch lines, but not the reservoirs. With the exception of Pu'u Lua, DHHL has jurisdiction over it.

Wai'awa, Mānā, Kekaha

Future

“ For the community of west Kaua’i hydro is the most economical form of sustainability because of the drop in elevation that Koke’e provides. In looking towards the future and more responsible forms of water management, diverting less water, restoring more of the natural water flow to its source, while creating more energy. This is a legacy project that is an investment for future generations”. Dawn L. Huff, hydrologist and ecologist, Joule Group LLC

“ I’ve been hunting Koke’e and the Alaka’i Swamp since I was a kid. Back then, Alaka’i was a real swamp! There were places where you would sink to your waist in water. Today It is almost bone dry. I can tell you that in the last 30+ years I’ve witnessed drastic changes in the environment and water. I believe this has a lot to do with climate change and the waste we are creating in the world. I’m afraid that my grandchildren and their keiki will never experience these special places.” Kalani Kapuni’ai, hunter, fisherman, cultural practitioner, lifelong resident of Kekaha.



Resources

Maps

- Dominique Cordy: old maps, Wai'awa and Alaka'i Waters, Wai'awa Traditional Names of Streams.
- Hawai'i State Dept. of Ag., Kekaha Ditch Irrigation System, Map 2, Water Resource Assoc., 2003.
- Hawai'i State Dept. of Ag., Kekaha Ditch Irrigation System, Map 3, Water Resource Assoc., 2003.
- KIUC, Pu'u 'Ōpae Energy Project Overview Map, 2016.

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- McGerty, B.A., Spear, Robert, Ph.D. 1997, *An Inventory Survey of Oral Histories of A Parcel of Land On The Plain of Mānā, West Kekaha, In The Ahupua'a of Waimea, District of Kona, Island of Kaua'i (TMK 1-2-02)*, Scientific Consultant Services, Honolulu.

Old Photos:

- Kaua'i Historical Society

Websites:

- Wehewehe.org
- Kipukadatabase.com