

Water Rights, GMOs, and the Struggle for the Farming Future of West Kaua‘i:

A Case Study

By Phoebe Eng

In ‘olelo Hawai‘i, the mother tongue of these islands, “wai” is water, “waiwai” means values or wealth, and “kānāwai” is the law. It is no coincidence that, in an island community like ours, both wealth and the law were and continue to be defined by fresh water.

From *Ola I Ka Wai: A Legal Primer for Water Use and Land Management in Hawai‘i*¹

The history of land and power in Hawai‘i is tied to water. By understanding who controls the flow and direction of our islands’ waters, we can also understand who determines the fate of *Hawai‘i nei*, its agricultural destiny, and its people.

The ongoing story of water and its connection to power in Hawai‘i is well demonstrated in Kaua‘i. Here, on this island’s West Side —the leeward, drier side of Kaua‘i — a battle for control of water is taking shape. Hydropower project sponsors, GMO companies, Hawaiian taro farmers with lo‘i on kuleana² lands, native Hawaiian home lands beneficiaries, and state agencies like the Hawai‘i Department of Agriculture and Hawai‘i Department of Land and Natural Resources are now negotiating for control and attempting to clarify their rights with regard to west Kaua‘i water.

At the heart of this struggle is the future development of the West Side, the fate of the GMO industry on Kaua‘i, and the viability of a new era of local, sustainable agriculture in this region.

A Short History of Water on West Kaua‘i

The modern history of water use on the West Side starts in the late-1870’s when sugar growing replaced the smaller scale rice fields and *lo‘i* cultivated by Chinese

¹ *Ola I Ka Wai: A Legal Primer for Water Use and Management in Hawai‘i*, D. Kapua‘ala Sproat, a publication of Ka Huli Ao Center for Excellence in Native Hawaiian Law (2010). The legal concepts described in this article are derived from this publication which is also available at <http://www.law.hawaii.edu/news/2010/01/25>.

² “Kuleana lands” are often interpreted as those lands which were granted to native Hawaiian tenants pursuant to L. 1850, p. 202 entitled “An Act Confirming Certain Resolutions of the King and Privy Council, Passed on the 21st Day of December, A.D. 1849, Granting to the Common People Allodial Titles for Their Own Lands and House Lots, and Certain Other Privileges,” as originally enacted and amended. See, for example, Hawaii Administrative Rules Title 13, Department of Land and Natural Resources Sec. 13.5.2 “Definitions”. Also, Kuleana: “right, privilege, concern, responsibility” (from Mary Kawena Puku‘i and Samuel H. Elbert, *Hawaiian Dictionary* 179).

and Hawaiian farmers.³

On the West Side, Kekaha Sugar Company and then American Factors (Amfac/JMB) developed the Koke'e and Kekaha Ditch systems that diverted large amounts of water from intakes in the upland swamps and forests to sugarcane lands that extend from Waimea to Mana.⁴ Also included in the plantation water and irrigation systems were a series of reservoirs that collected and stored water, along with groundwater wells that brought potable water to plantation workers.

Enter the Agribusiness Development Corporation

The Hawai'i sugar market decline of the late 1990's, and the abrupt exit of the West Side plantations shortly thereafter, had huge economic implications for the area.⁵ Abandoned sugar cane lands reverted back to the state, to the Department of Land and Natural Resources (DLNR), and in 1994, the State Legislature created a new state agency, the Agribusiness Development Corporation (ADC) within the Department of Agriculture to manage the transition of those lands. ADC is charged with transitioning the monocrop operations of the former plantations into new diversified agriculture enterprises, and managing former sugar cane lands toward that overall goal.⁶

The ADC, however, is not an ordinary public agency. It is granted powers that enable it to contract with private sector partners more quickly than other public sector agencies.⁷

ADC formally assumed management responsibility of approximately 12,500 acres of Kekaha agricultural lands in late 2003 under Executive Order No. 4007.⁸ From that acreage, 7,750 acres are considered to be Kekaha's most productive lands, and approximately 5,300 acres (the fertile "*makai*" acres on the coastal Kekaha-Mana plain) have since been given, through a restrictive use easement, to the Pacific Missile Range Facility, for a low intensity agricultural buffer zone.⁹ This land giveaway by the state was hotly contested by native Hawaiian leaders and

³ *Sugar Water: Hawaii's Plantation Ditches*, Carol Wilcox, University of Hawaii Press (1996), pp. 86, 25-26, 33.

⁴ *Ibid.*, pp. 93-97.

⁵ Maehara, Eric *Agribusiness Development Corporation: Revisited*. Honolulu, HI: Legislative Reference Bureau (January 2007). See also Kent, Noel *Hawaii: Islands Under the Influence*, Honolulu, HI: University of Hawaii Press (1993).

⁶ *Ibid.* and See Haw. Rev. Stat. S. 163D.

⁷ Certain exemptions and powers were given to allow ADC to expedite projects and act more like the private sector. Some of the exemption and powers include: exemption from HRS Chapter 171 (public lands); exemption from the Public Utilities Commission regulations; ability to issue bonds and form subsidiaries. See *ADC Strategic Plan* October 15, 2008. p. 2.

⁸ Maehara, note 5 and Southichack, Mana, *Former Kekaha Sugar Company Land and Infrastructure: Its Current and Potential Economic Capacity, Final Report*, October 6, 2005.

⁹ Minutes for the Meeting of the Board of Land and Natural Resources Monday, May 24, 2004. Item D-5. For BLNR decisions setting aside lands and water to ADC, see, for example DLNR Land Division PSF No: 05KD-234 and S-7359. For additional BLNR decisions granting land and water use and management rights to KAA and its members, see for example, Revocable Permit No. S-7252 (2003).

community members, yet unanimously passed by BLNR. The motion to pass was made by Lynn McCrory, then a BLNR member and currently co-owner of Kekaha Sugar Mill.¹⁰ Those restrictive use acres are currently leased to GMO companies.¹¹

Enter the GMO Companies

GMO companies became the true controllers of West Side land and water in 2007. In that year, ADC gave the exclusive license to use, manage, operate, maintain, and control the infrastructure of the west Kaua'i former sugar cane lands to a private entity called Kekaha Agriculture Association.¹² This broad control includes management of the Koke'e and Kekaha ditch systems and the control and taking of its flows. For its services, KAA receives sizeable annual management fees and project fees funded with taxpayer dollars, and perhaps indirectly, through government subsidies. In 2009 for example, KAA received at least one project fee of \$581,250 to relocate electrical equipment from the Kekaha Sugar Mill.¹³

KAA often describes itself as a "farmers cooperative" of leaseholders of the west Kaua'i state-owned lands. However, it is currently run and primarily financed by its largest corporate members which to date include the GMO companies Pioneer Hi-Bred International (a division of the chemical company giant, DuPont), Syngenta (the Swiss chemical company that created the widespread herbicide Atrazine), and BASF (a transnational chemical company headquartered in Germany).¹⁴

In many ways, KAA has merely recreated the plantation system in its "top down" approach to land and water management. As with plantations, the ultimate decision makers of GMO companies are far away from the communities directly impacted by their companies' environmental practices.

No publicly promoted, diversified agriculture training to Kaua'i's aspiring farmer population has been noticeably forthcoming from KAA, and no real progress has yet been made on West Side agricultural lands in developing what Kaua'i's people say they want: an island that can produce its own food and be "food secure" even in times of emergency; and affordable, healthy and nutritious fresh food produced locally by small family-owned farms that use sustainable agricultural practices.¹⁵

¹⁰ Ibid.

¹¹ General Lease No. S-3852, Board of Land and Natural Resources.

¹² *Restated and Amended Memorandum of Agreement between State of Hawaii Agribusiness Development Corporation and Kekaha Agriculture Association*, dated August 29, 2008. See also Kekaha Agriculture Association Articles of Incorporation dated November 3, 2003.

¹³ Notice of Amendment to Sole Source Contract, Hawaii State Procurement Office dated February 4, 2009. Sole source reference number 08-013J.

¹⁴ See, for example, Annual Report, Kekaha Agriculture Association, Department of Commerce and Consumer Affairs; Smaller local leasehold farmers, often within the GMO company formal and informal communities, are invited to farm land and become members of KAA, at the discretion of those GMO companies and the local land manager. Those few local farmers have less influence in KAA, but operationally serve as KAA's public face to the west side community.

¹⁵ See, for example, Malama Kaua'i, *Diversified, Localized, and Sustainable Agriculture on Kaua'i: Assessing Opportunities and Addressing Barriers*

ADC, in choosing the GMO industry-dominant KAA as its West Side land manager, has, in essence, shortchanged its fiduciary duty to transition the West Side's former sugar cane lands into diversified agriculture. In doing so, the state also forgoes the opportunity to explore new land and water management practices that could transform west Kaua'i into an important center for sustainable, diversified agriculture, and revitalize West Side local economies through smaller scale, locally owned farming enterprises.

Enter Hydropower Interests

In a new twist on the old plantation model, KAA is also advancing the privatization of the West Side's water to produce hydropower. A hydropower developer, Pacific Light and Power (PLP), incorporated under Delaware law, is a new licensee of West Side *mauka* land, currently leasing ADC land at \$15 per acre annually, and is a member of KAA.¹⁶

As well-meaning as their alternative energy plans may be, PLP (through its wholly-owned subsidiary Konohiki Hydro Power) intends to develop hydropower infrastructure that will use the water flows of the Koke'e and Kekaha ditches, and burn guinea grass from their leased lands, to create power exclusively to serve the needs of the KAA private sector members. According to PLP, public funds may be used to pay for this project, even though the benefits will inure to the private sector.¹⁷ PLP proposes to sell excess power to Kaua'i's public utility, Kaua'i Island Utility Company (KIUC), a rural cooperative that is owned by the people of Kaua'i.¹⁸ This energy sale back to the people would be an additional income source for the private sector.

Possible Violations of the "Public Trust" Doctrine

When private sector interests are the primary and ultimate beneficiaries of state-owned natural resources, such as our water and our fertile soil, the public trust benefits of Kaua'i's resources are no longer guaranteed.

When non-transparent, plantation-style management practices continue to determine West Side water and land use, our communities cannot advance toward more sustainable agricultural practices that could produce a higher, healthier quality of life for Kaua'i's taxpaying residents.

KAA's management approach has been to put Kaua'i's rich soil, water, and abundant sunshine largely into the service of producing non-edible test crops for GMO

www.malamakauai.org/docs/AgStudy/MalamaKauai-AgStudy-HighRes.pdf (copy on file).

¹⁶ *Agribusiness Development Corporation Grapples with Conflicts over Diverted Water in Kekaha*, Environment Hawaii, Volume 21, Number 11, May 2011. See also License Agreement No. L1-K1101 State of Hawaii ADC as Licensor and PLP as Licensee, dated April 15, 2011.

¹⁷ ADC minutes of Kekaha Committee Meeting of September 15, 2010, p. 4.

¹⁸ http://www.pacificlightandpower.com/sg_hydro_content/documents/Konohiki_Hydro_Power_FE_RC_Exemption_Application_Part_2_Exhibit_F_G_Appendices.pdf (copy on file)

companies. The pesticide and herbicide practices of GMO tenants damage our soil over the long term, reducing it to a lifeless growing medium.¹⁹ Open air GMO chemical spraying is affecting the health of West Side children and families, resulting in increased health care costs that are borne by taxpayers, insurance companies, and private citizens.²⁰ The green waste generated in these test fields may also be plowed back into our soil or deposited into our landfills due to lack of meaningful regulation. Grubbing²¹ violations of GMO companies may have adversely affected West Side estuary ecosystems and coral reefs.²²

Additionally, under KAA management, Kekaha and Koke'e Ditch systems continue to divert water from the Waimea River, possibly limiting the habitat and swimming range of native Hawaiian fish species such as *'o'opu*.²³ Decreased river flows may also concentrate bacteria and pollutants into smaller amounts of water downstream, which may explain why, according to local accounts, West Side children are frequently falling ill after swimming in the river. Perhaps due to less water flow from upriver, silt builds up at the mouth of the Waimea River, resulting a higher, drier bed at the river mouth, and preventing a healthy, fresh water flow from *mauka* to *makai*.²⁴

To add insult to injury, much of West Side ditch water, which was historically needed to irrigate sugarcane, is now siphoned away constantly from the lowlands through a series of pumps, in order to keep the *makai* GMO fields from becoming too wet for the GMO companies' test crops (predominantly corn). The result is ironic: KAA currently generates power from its privately-run *mauka* powerhouses to divert the unwanted water away from its land.²⁵ This diversion will likely continue unless

¹⁹ See, for example, Leopold Center Fellow, Fred Kirschenmann, in a TEDx presentation: *Soil: From Dirt to Lifeline*, January 21, 2012.

²⁰ See, for example Airaksinen, et al. *Association Between Type 2 Diabetes and Exposure to Persistent Organic Pollutants* (2011). See also generally "Pesticides in Our Bodies," <http://www.panna.org/issues/persistent-poisons/pesticides-in-our-bodies>. See also Van Voorhis, *Waimea Residents Sue Pioneer: GMO Seed Company Facing "Substantial" Lawsuit*, The Garden Island, December 13, 2011; Gehrlein, *Teachers Protest Pesticide Use*, The Garden Island, February 2, 2008 (reporting ill effects of Syngenta spraying near Waimea School); and various posts on the blog Maluhia Group, such as this post re: pesticides used adjacent to Waimea Canyon Middle School during the 2006-07 school year: <http://maluiawcms.blogspot.com/2007/06/pesticide-herbicide-fungicide-101.html>.

²¹ Grubbing: clearing land to remove roots, brush.

²² See, for example Van Voorhis, *Large-Scale Die-off of Sea Urchins Discovered Off Kaunakani*, The Garden Island, February 12, 2012, and Van Voorhis, *County Takes Legal Action Against Seed Companies: Dow Agro, Pioneer Addressing Unpermitted Grubbing Violations*, The Garden Island, May 3, 2011.

²³ *Environment Hawaii*, Note 16.

²⁴ Stronger state enforcement of water rights generally would include support for commissioned research to understand and perhaps quantify the health care and other longterm social and environmental costs brought about by GMO company and plantation practices.

²⁵ *Environment Hawaii*, Note 16. See also Southichack, *An Economic Assessment of Former Kekaha Sugar Company Land and Infrastructure: Its Current and Potential Economic Capability*, Hawaii Department of Agriculture (2005): "...there is more water available than needed...Currently, excess water must be pumped out 24 hours with two pumping stations using hydroelectric power

and until such time as KAA may want the excess water for its hydropower businesses currently in development.²⁶

Hawaiian Water Law and the “Public Trust” Doctrine

Hawai‘i has some of the strongest water and stream flow protection standards in the nation, and clearly states that “public trust” water uses, and specifically native Hawaiian uses, have the priority claim to water in our state. Hawai‘i water law could therefore be critical in determining the long term viability of the GMO industry in west Kaua‘i.

Among the key laws and concepts that inform the “public trust” doctrine, perhaps one of the most fundamental, in *Article 11, Sec 1* of the *Hawai‘i Constitution*, maintains that “all public natural resources are held in trust by the State for the benefit of the people.”²⁷

Kuleana,²⁸ appurtenant,²⁹ and traditional native Hawaiian customary rights, as well as riparian rights³⁰ are expressly protected under the public trust doctrine.³¹ Public trust uses have priority over private commercial uses, which do not enjoy the same protection. The law dictates that “any balancing between public and private purposes must begin with a presumption in favor of public use, access, and enjoyment.”³² Stream diversions that propose to use water for private commercial gain have the burden of justifying these uses against protected public rights to the water. Kuleana rights have a priority over “off-stream” uses and cannot be lost, even if they are not currently utilized.³³

The Water Code also gives priority protection to “appurtenant rights”³⁴ and traditional customary rights such as cultivating kalo and gathering various natural resources for subsistence, cultural, and religious purposes, such as *hihiwai, opae,*

generated within the subject land to keep down the groundwater table to prevent possible root rots.” P.15.

²⁶http://www.pacificlightandpower.com/sg_hydro_content/documents/Konohiki_Hydro_Power_FE_RC_Exemption_Application_Part_1_Exhibit_A_E.pdf (copy on file).

²⁷ Haw. Const. art XI, S. 7.

²⁸ See Note 2.

²⁹ Appurtenant rights: Rights that attach to parcels of land that were cultivated, usually in the traditional staple kalo, at the time of the Mahele of 1848. Because appurtenant rights attach to the land and not to any individual, they can be exercised by property owners irrespective of race or gender. See Note 1, *Ola I Ka Wai*, p. 10.

³⁰ Haw. Const. art. XI, S. 7. Riparian rights protect the interests of people who live along the banks of rivers and streams to the reasonable use of water from that stream or river on riparian land.

³¹ Haw. Const. art. XII, S. 7; Haw. Rev. Stat. S. 174C-101(c); Haw. Rev. Stat. S. 174(C)-101(a); and *Waiahole I*, 94 Hawai‘i at 137-39, 9 P.3d at 449-51 and as affirmed in *Na Wai Eha petition to the Commission on Water Resource Management*, State of Hawaii, Case No. CCH-MA06-01 (August 2012).

³² *Waiahole I*, 94 Hawaii at 142, 9 P.3d at 454.

³³ *Hawaii Water Code, Article 11, Sec. 7*. This section 7 and section 1 adopt the public trust doctrine as a fundamental principle of constitutional law in Hawai‘i. In *Waiahole Combined Contested Case Hearing*, 94 Hawaii 97, 132, 9 P.3d 409, 444 (2000).

³⁴ See Note 28.

*‘o‘opu, limu, thatch, ti leaf, aho cord, and medicinal plants.*³⁵

If KAA’s management of the water infrastructure has effectively denied or limited the ability of native Hawaiians or the Hawaiian people to exercise any of these public trust purposes, management and control of water by KAA runs afoul of these legal principles.

What is also clear is that the proactive exercise of native Hawaiian rights to West Side water, supported by strong policies that defend established water law, can change the longterm direction of West Side agriculture and regional economic development.

The West Side Vision

As Kaua‘i voters become more aware of the importance of water rights in determining the future of our island, we can begin to explore alternatives that serve the public trust and encourage our elected officials to do the same.

Kaua‘i’s West Side community is home to some of the poorest families on the island today, and historically its concerns have largely been ignored by state and county government. But in their emerging courage to speak up, through core values that prioritize health, cultural wisdom, community, and *malama ‘aina*, the West Side can change the course of its destiny. They can then identify the most appropriate, most *pono* collaborators in spearheading, supporting, and moving into a pivotal transition away from plantation-based, paternalistic ways of doing business. In that transition, the West Side can be a world-class destination and model for sustainable regional development.

Here is a picture of a better West Side future: Restoring the ditch flows back into the river could allow for the re-introduction of *lo‘i* and sustainable *ahupua‘a* systems that nurture larger populations of *‘o‘opu* and other native species. A new generation of farmers might learn to grow food by working with the principles of small scale, locally based sustainable agriculture, aquaculture, and pastoral practices. New locally owned businesses based on value-added agricultural products could revitalize the regional economies of Kekaha and Waimea. Young West Siders would have a better range of life choices and opportunities.

With water flowing through the *mauka* home lands above Kekaha at Pu‘u Opaie, agricultural and pastoral homesteads, and training of native Hawaiian homesteaders in new, biodynamic farming practices could fulfill the promise of the Hawaiian Homes Act. New groups, such as Ka Piko o Waimea that intends to revitalize Waimea Valley’s taro culture and the Kekaha Community Garden that teaches residents how to farm nutritious foods, could thrive.

³⁵ *Hawaii Water Code Chapter 174(c)-63 and -101; Haw. Rev. Stat. S. 174C-101(c).*

Water law may be the catalyst that creates a tipping point for that beautiful vision. Restoring instream flows, putting West Side waters back into the river, developing strong policies that truly honor the “public trust,” and re-establishing the ‘*ahupua’a*³⁶ and *kuleana* relationship between land, water, and the people, could be the West Side’s greatest gift to the world.

Mahalo nui loa to EarthJustice for its longtime dedication to the protection of water rights for the people of Hawaii.

Phoebe Eng is a community advocate and has been an advisor to several social justice and environmental justice organizations and national foundations. A former attorney, Eng believes strongly that “knowledge is power.” She currently focuses on providing Hawaiian communities with the facts they do not have – but often need – to understand their historical, political, and environmental context, and fight effectively for change.

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³⁶ Land division usually extending from the uplands to the sea. Mary Kawena Puku’I & Samuel H. Elbert, *Hawaiian Dictionary* 9 (1986 ed.).