

Testimony for Resolution 24-161 increase production and expansion of R1 water.

In January 2015, I sent the following to State Representatives, State Senators, the Mayor, County Council, West Maui Land, Kaanapali Land, and Kamehameha Schools/Bishop Estate. This is back before my house and the entire town burned down on August 8, 2023.

RESOLUTION

I have a list of resolutions posted on my fridge. One of them states "I will make today's decisions with tomorrow's impacts in mind and consider my current choices in light of future generations." I think of myself as an eternal being so when I consider choices for future generations I think in terms of hundreds of years. Our time on earth is but a vapor. I think we should do our best while we are here to be impactful with that limited time.

Hawaii is at the turning point in its history. We are the ones ushering in the next era. The history begins with the pre-contact period to be followed by the whalers and missionaries. Next came the sugar mills and pineapple plantations and replaced by the tourist industry. What's next?

Eventually, as generations pass, if development continues, there will not be construction related employment. What then? If we lose agriculture land, then that will not be an option. Even the current agricultural developments limit the type of agriculture options. It will only get worse as rural developments continue. It would be beneficial to designate some of these parcels of land exclusively for agricultural uses and protect for posterity in agriculture conservation.

If one is to look at history, it shows the population world-wide is increasing. Historically, famines occur. Hawaii is especially vulnerable as we are 2500 miles from the nearest continent. If there is a global food shortage, they will not be shipping food to Hawaii. We have less than a week's supply of food with our current population. Can you imagine the future with more developments creating a larger population and no food security? How will this impact the well-being of future generations? Even in our time here, if a food shortage was to happen now, we can't grow food fast enough to sustain the current population.

The future is now as we are at a deciding point. It is up to people like you who have power and influence to move Hawaii into a sustainable existence for the future.

I am talking to people about an agriculture revolution in Hawaii. It is viable. We can provide our own food security and be able to export to the Pacific Rim. I am trying to impact the local community, yet I am only a concerned citizen and do not have the influence that you have to make it happen. The major obstacle right now is the available agriculture land in Lahaina having reliable sources for agricultural water.

The Wahikuli Reservoir was decommissioned a few years ago. It shares ownership with a private party and the State. You can imagine the logistics of getting the reservoir back into operation will have many obstacles. It will take a spirit of cooperation and many working

together to realize the dream. Let's consider how it will benefit the community overall and positively impact the entire state.

The Lahainaluna boarding program was established for the purpose to provide an education in agriculture. The land near the school is State owned and could be used for the high school program with the continuing education provided by the University of Hawaii. The University's annex in Lahaina could provide classrooms for agricultural classes and the State Ag Land for application. The state-owned land could include an Agriculture Park to provide for organizations like LEAF (Laulima Eco-Friendly Alliance of Farms) and Feed My Sheep which are groups that work with the poverty level and homeless populations. The program "Grow Some Good" is a Maui non-profit organization that educates young students on agriculture. In addition to benefiting the education of our children and families that are financially vulnerable, the Wahikuli reservoir would provide Ag water for private diversified farm operations and stimulate the local economy.

The water could be available to the existing coffee farms with opportunity for expansion of those profitable operations which includes Kaanapali Land. In addition, Kamehameha Schools has 1200 acres of Ag land above and below the By-Pass that they are interested in making available for various size farms. West Maui Land Company's agricultural options will only be realized if agriculture water is made available. You can see that with all the parties involved it could have a wide spread positive affect in many demographics.

Agriculture, in addition to providing food, opens up many more job opportunities in science, technology, and economics in the entire process from seed to feed. The tax dollars stay in our state. If we work together to realize this dream it would set a precedent that the rest of the state could emulate.

I hope you will consider this plan with the attitude of Aloha. In that spirit, please consider the following ideas with an open mind and an attitude of possibility. The reliable source of Agriculture water is the goal for the Lahaina district.

The Wahikuli Reservoir is necessary to accomplish that objective. The water from the Honokohau Ditch System in the past fed into the Wahikuli Reservoir and could be made operational again. The Lahaina Waste-water Reclamation Facility (LWRF) treats the recycled water to R1 rating which can be used on all agriculture including food crops where the recycled water contacts the edible portion of the crops, including all root crops. There is one condition that requires the treated water to be tested for turbidity of the influent in which case if it is not suitable, the injection wells could still be used until the disinfected guideline for R1 water is remedied. (Guidelines for the Treatment and Use of Recycled Water 5/15/02)

The LWRF has the capability to pump the R1 water to the Honokohau Ditch System where it would be diluted with fresh water and empty into the Wahikuli Reservoir. It would provide a reliable source of water for agriculture use. The expenses related to treating the water are already

in place and much of it is being injected to the sub-surface aquifer with no compensation. (Alarming, it has recently been proven that this treated water is showing up in near shore ocean test samples.) There is new technology available and being investigated to make the pumping expenses more economical and environmentally friendly.

Ag water may not generate the income that the hotel recycled water can for use on golf courses and the like. However, Ag water would realize more compensation than what is currently in place by way of the injection wells. Agriculture would stimulate the economy and these tax dollars would result in financial benefits.

The reason the Wahikuli Reservoir should be considered, rather than another storage option, is that it is historical, proven effective for decades, and is positioned to serve a greater portion of Lahaina Ag land. The State's estimated cost to get the reservoir operational is 12 million dollars. The infrastructure to lift this treated water from the LWRF to the Honokohau ditch is in place, though it may need to be updated to handle the current load. It should be noted that this infrastructure was funded by the EPA in the early 80's and never used by the County of Maui.

The costs related to the infrastructure to move the R1 water from the LWRF to the ditch needs to be explored. I spoke with Matt Claxton (see attached bio) who has traveled globally and is an inventor of desalination and reclamation systems. He has assured me that if 4sphere (see attachment) cannot provide what we need that he has contacts to direct us to.

There are a couple options to consider for the funds to be provided.

1) The sentencing for the County LWRF is anticipated for March of 2015. Perhaps a plea agreement could be made that the fines incurred be designated to the costs related for the Wahikuli Reservoir restoration and the necessary funds for the installation of the system to pump the water from the LWRF to the Honokohau ditch. It could include funds to establish an Agriculture Park on State land in Lahaina for the use of education and non-profits first and to the public as well. Maybe the Lahainaluna High School could use some of the funds to get the school's outdated equipment and underutilized Agricultural Program fully operational.

The idea being that the community that was negatively affected would benefit in the resolution.

2) If settling in court is not an option then perhaps the State would be willing to grant their portion of the ownership of the Wahikuli Reservoir to the County. The County then could use the funds allocated for the remedy of the LWRF to the restoration of the reservoir. The County may be able to get the reservoir restored for less money than the State's estimate. The long term savings realized by more efficient and environmentally friendly ways to pump and process the reclaimed water could be considered as well.

I hope that a resolution can be made to make the best use of what we have been given. We have available Ag land. We have reclaimed water rated for Ag use. We have a historical ditch system and reservoir that has been successful. We have educational opportunities from elementary to the High School to the University of Hawaii to provide qualified farmers. We have an opportunity to work together to provide food security and employment sustainability. We have the chance to do something really impactful for the community with positive ramifications that could affect all of Hawaii.

The following letters were published in local newspapers prior to the August 8, 2023 fire. They read as follows:

Water usage restrictions in Lahaina, with more development underway, demands immediate action. Visiting Montana, individual farmers irrigate hundreds of acres with miles of irrigation equipment. If farming families can afford to irrigate, then Maui County could too.

Regulated and good for irrigating edible vegetation, Lahaina Wastewater Reclamation Facility's treated water is R-1 rated. Using renewable energy, it is possible to pump treated water through updated existing infrastructure to a higher elevation connecting to the former sugarcane irrigation ditch system. Transfer LWRF's recycled water back to Lahaina's Kahoma/Kanaha aquifer through existing ditches in irrigation pipes.

Allocate the irrigation water to the areas it originated from. Distribute recycled water to benefit the public trust. Flanked by mostly state land to the north and approximately 1,200 acres of Kamehameha Schools/Bishop Estate property to the south, Lahainaluna's densely populated area with schools and infrastructure should be a priority.

For public safety and wellbeing, these vast parcels of agricultural land desperately need water. Hurricane Lane's wildfire forewarned what catastrophes can happen when neglected agricultural land is dry and fallow.

Using reclaimed water, develop agriculture parks for food production and irrigate parks, schools, and other public use areas. Also, with international demand and exorbitant prices, reforesting sandalwood would be the financial, cultural, and environmental thing to do.

Besides recharging the aquifer, lowering temperatures with trees providing shade, addressing food security, employment opportunities, and public safety, it would be nice for the community paying water and sewage fees to benefit overall with a beautiful and healthful environment.

November 2022 letter:

Lahaina's wildfire on Election Day serves as a warning, life lesson, and inspiration. Spiritually, fire can be Divine Judgement or God's refining fire where we come through the flames as pure gold.

On November 8, heroic efforts of firefighters rescued Lahaina from what could have been a disastrous situation. Schools, residences, and infrastructure were all at risk. Imagine how long it would take to rebuild if schools burned down. If fire damaged the water infrastructure, it would affect thousands of lives.

Living with the consequences of the fire, dealing with dust and ashes is ongoing.

What is being done to mitigate hundreds of acres of parched property posing hazardous fire-prone possibilities?

Reminded of Hurricane Lane's wildfire, the past administration and landowners have done nothing to remedy this dire situation. State land, private property, and Kamehameha School/Bishop Estate's 1,200 acres above and below Lahaina's Bypass need fire prevention solutions.

Newly appointed officials can help make things right. Distribute Lahaina Wastewater Reclamation Facility's reclaimed water, taken from Lahaina, to be piped back through the existing ditch system. Use treated water to irrigate public parks, forests, and agriculture in this arid region. Once a reliable source of water is set up, incentivize tree planting and agriculture parks.

Spiritually and physically, start enacting beautiful solutions for food security and public safety. Begin by giving thanks to God and worship the Lord with reverence for "God is a consuming fire!" Making beauty from ashes, take this golden opportunity to honor God by practicing good stewardship.

Within six months prior to the fire, I submitted the following suggestions in a letter addressed to Mayor Bissen, Councilmember Paltin, Sen. McKelvey, and Rep. Cochran. It read as follows:

- 1) Update existing infrastructure at the Lahaina Wastewater Reclamation Facility. Pump treated water up to the higher reservoir connected to the sugarcane ditch system. Put irrigation pipe in the former ditches. Allocate water taken from Lahaina back to it for irrigation. Irrigate public-use facilities and parks along with agriculture and forestry.
- 2) When a reliable source of irrigation is established, incentivize agriculture and forestry. Sandalwood is extremely valuable worldwide and potential for future taxable revenue. State controlled property north of Lahainaluna School is an ideal place for reforestation benefiting education, tourism, and environmentally prudent.
- 3) Encourage Kamehameha Schools/Bishop Estate to develop agriculture, forestry, and a cultural historical park on their property south of Lahainaluna School. Wildfires continue to be problematic and dangerous in this area. Irrigation and natural development of this area is for public safety and environmental protection.
- 4) Clean up Cut Mountain near Olowalu and create a safe space for the homeless community to park and sleep. They are already living there. It is far away from businesses, schools, and residential areas, so complaints would be minimized. Landscaping could provide a barrier adjacent to the adjoining highways for privacy and beautiful aesthetics. Set up rubbish bins, portable toilets, and picnic tables with routine police patrols for safety. Hotels and businesses could maybe partner with the county and state to help do clean-up, landscaping, and maintenance like the “adopt-a-highway” program.

Thanks for your service and consideration of these future projects.