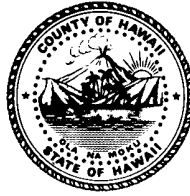


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County of Hawai'i

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NOTICE OF PUBLIC MEETING

KONA COMMUNITY DEVELOPMENT PLAN ACTION COMMITTEE

NOTICE IS HEREBY GIVEN of the following matters to be considered by the Kona Action Committee in accordance with the provisions of Section 92-7, Hawai'i Revised Statutes.

NOTE: Pursuant to Act 220, Session Laws of Hawaii 2021, which amended the Sunshine Law to allow meetings to be remotely conducted online, effective January 1, 2022, Action Committee Meetings may be viewed live on YouTube, joined through Zoom, or may be attended at the location listed below.

DATE: Thursday, May 12, 2022

TIME: 5:00 P.M.

PLACE: This meeting will be held by Interactive Conference Technology (ICT) through Zoom. The public may provide verbal testimony at the meeting by joining online or calling into the Zoom meeting. Members of the public may also attend via Zoom, watch the live stream on the Planning Department's YouTube channel, or attend the in-person on site location listed below.

To register for verbal testimony please contact staff at cdp@hawaiiicounty.gov or (808)961-8188.

Zoom registration link: <https://tinyurl.com/3ifdrhft>

To view the live stream on YouTube, click the following link:

<https://www.youtube.com/CountyofHawaiiPlanningDepartment>

If internet connection is lost, the public meeting will be automatically recessed to restore communication. If lost connection exceeds 30 minutes, the meeting will be terminated.

In-Person site location:

74-5044 Ane Keohokālole Hwy.
Community Hale, Building G
Kailua-Kona, HI 96740

AGENDA

CALL TO ORDER

ROLL CALL

ANNOUNCEMENTS

APPROVAL OF THE MINUTES: The Action Committee will consider the draft minutes for the Kona Action Committee Meeting on March 10, 2022.

PUBLIC COMMENT ON AGENDA ITEMS: Written testimony may be submitted via email at cdp@hawaiicounty.gov or in person at the Hilo or Kona Planning Department, up to two (2) business days prior (Tuesday, May 10, 2022) to the meeting (see the Notice Section below). In addition, members of the public may provide oral testimony at the meeting on any of the agenda items. To register for access to the Zoom meeting please email cdp@hawaiicounty.gov. With discretion of the Chair of the CDP Action Committee, comments may be made either during the public comment portion of the agenda or just prior to the relevant business item and may be limited to three (3) minutes in length per agenda item.

BUSINESS:

1. **Election of Action Committee Officers:** The Action Committee will nominate and elect a Chair and Vice-Chair to serve during the 2022 calendar year. Nomination and election to be facilitated by Planning Staff.
2. **Infrastructure Priority Discussion.** Director Kern requests that the Action Committee provide key infrastructure project ideas in the Kona district. Planning staff will record the projects identified, including written input submitted post meeting, to then be provided to the Director. A summary of the input will be shared back to the AC and included in the minutes of this meeting.
3. **Action Committee Project Prioritization Discussion.** The Action Committee will continue their discussion to identify priority implementation projects and interests for 2022. Discussion will include exploring mutual interests between Action Committee members to create investigatory subcommittees and community liaison groups, as applicable. Joint initiatives with community members or partner organizations are encouraged.
 - Flood Mitigation and Erosion Control Subcommittee
 - Discussion around the Action Committees Contribution to the Successful Implementation of the CDP
4. **Update on the CIP budget.** Planning staff will provide a brief update on the current County budget adoption process. The next public hearing regarding the fiscal year 2022-23 Operating and Capital Improvement Project budgets is scheduled for Tuesday, May 17th through Thursday, May 19th.

AGENDA FOR NEXT MEETING: Agenda item suggestions from the Action Committee and Planning Staff for the Joint Action Committee Meeting on August 17, 2022 and the Kona Community Development Plan Action Committee meeting on September 8, 2022.

ADJOURNMENT

This agenda and all related documents are available in the Planning Department's Kona Community Development Plan Action Committee folder via the County of Hawai'i Public Documents Repository: <https://records.hawaiicounty.gov/Weblink/1/fol/9059/Row1.aspx>. These documents may also be requested from the Planning Department by calling (808) 961-8288 or emailing cdp@hawaiicounty.gov.

NOTICE: The purpose of the public hearings is to afford all interested persons a reasonable opportunity to be heard on the above items. A person desiring to submit oral or written testimony shall indicate their name and whether the testimony is on their behalf or as a representative of an organization or individual. Written testimony can be submitted via email or hard copy. Hard copies should include an original and nine copies and be submitted no later than 4:30pm two days prior to the hearing date.

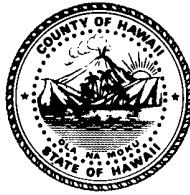
Anyone who requires an auxiliary aid or service, other reasonable modification, or language interpretation to access this meeting please contact the Planning Department at (808) 961-8288 as soon as possible, but no later than five working days prior to the meeting date, to arrange for accommodations. "Other reasonable modification" refers to communication methods or devices for people with disabilities who are mentally and/or physically challenged.

If you are a lobbyist, you must register with the Hawai'i County Clerk within five days of becoming a lobbyist. (Article 15, Section 2-91.3(b), Hawai'i County Code). A lobbyist means, "any individual engaged for pay or other consideration who spends more than five hours in any month or \$275 in any six-month period for the purpose of attempting to influence legislative or administrative action by communicating or urging others to communicate with public officials." (Article 15, Section 2-91.3(a)(6), Hawai'i County Code). Registration forms and expenditure report documents are available at the Office of the County Clerk-Council, 25 Aupuni Street, Hilo, Hawai'i 96720.

KONA CDP ACTION COMMITTEE

Mitchell D. Roth
Mayor

Lee E. Lord
Managing Director



Zendo Kern
Director

Jeffrey W. Darrow
Deputy Director

County of Hawai'i PLANNING DEPARTMENT

KONA COMMUNITY DEVELOPMENT PLAN ACTION COMMITTEE

Aupuni Center • 101 Pauahi Street, Suite 3 • Hilo, Hawai'i 96720

Phone (808) 961-8288 • Fax (808) 961-8742

Thursday, March 10, 2022
DRAFT Meeting Minutes

CALL TO ORDER

Chair Young called the Kona Community Development Plan (KCDP) Action Committee (AC) to order at 5:13 pm. Due to restrictions related to the COVID-19 pandemic, this meeting was held via the Zoom interactive video platform.

Chair Young shared an 'Ōlelo No'eau:

He mai'a ua pa'a i ke ko'o

A banana tree well supported by props / A person well supported by his followers

[A leader is stronger with the support of the people]

ROLL CALL

AC Members Present: Charles Young (Chair), Shirley David (Vice-Chair), Kari Kimura, Franz Weber, Janice Palma-Glennie [arrived at 5:36 pm], David Huerta [arrived at 6:29 pm]

AC Members Absent-Excused: Marisa Bankston, Roselyn Molina, Shane Palacat-Nelsen

County Staff: Planners – Heather Bartlett, Keiko Mercado, Jaslyn Nathaniel

County Officials: Council Member Rebecca Villegas

3 members of the public attended the meeting via Zoom. The meeting was also available for synchronous viewing via the [COH Planning Department YouTube Livestream](#). The Livestream is available at [Kona CDP Action Committee Meeting March 10, 2022- YouTube](#).

ANNOUNCEMENTS

APPROVAL OF MINUTES:

Minutes were addressed after business item one (1) when the committee attained quorum.

Committee Member Kari Kimura made a motion to approve the November 10, 2021 meeting minutes. Seconded by Committee Member Janice Palma-Glennie. Motion passed with 5 votes aye, 0 votes nay. [Committee Member Huerta was not present for the vote]

PUBLIC COMMENT ON AGENDA ITEMS: None

BUSINESS:

1. Information Sharing: Sharon Hirota, from the County Office of Housing and Community Development, presented an overview of several programs and centers that were launched in partnership with community based organizations. She encouraged AC members to share these programs with their networks:

- Emergency Rent Assistance – Provides financial assistance to help residents ensure housing stability by helping them to get caught up on rent and utility payments
- Landlord/Tenant Mediation Center – Provides landlord/tenant mediation services. After the lifting of the moratorium there was a temporary modification to the landlord-tenant code that requires landlords and tenants to go through a mediation process before entering into the court system.
- Coordination Center – Provides a free centralized service that helps residents navigate critical financial, housing, and health-related issues. The Center's objective is to ensure that lack of knowledge about available resources does not stand between residents and the help they need and is designed to help residents with one-on-one coaching and connectivity to community-based and government supported services.
- Homeowner Assistance – Provides Hawai'i homeowners who are experiencing financial hardship associated with the COVID-19 pandemic and have incomes at or below 150% of the area median income with assistance that will lead to long-term mortgage resolution. The program grants up to \$30,000 to assist homeowners with paying past due mortgages or reduce monthly payments.
- Financial Empowerment Centers – Provides free, one-on-one financial counseling as a public service to all residents. Centers are staffed with trained counselors to help residents manage money, decrease debt, improve credit, and access all other services offered by the centers to find financial stability.

Chair Young commented that Covid may not be the primary origin; but rather, an exacerbation to a pre-existing issue of affordable housing needs. He questioned whether there was statistical data that was being generated and captured. Ms. Hirota confirmed that data is being collected and that it will help OHCD determine where the gaps of need are to help establish safety nets. She defined affordable as having diverse variables with a wide range of appropriate housing needs. Ms. Hirota mentioned that additional information would be shared about a strategic Roadmap and other upcoming projects relative to the recently passed Council Bill 111 (Ordinance 22-26 amends Chapter 19, Article 11, Section 19-90, of the Hawai'i County Code 1983 (2016 Edition, as amended), relating to Real Property taxes).

Ordinance 22-26 available here: <https://records.hawaiicounty.gov/Weblink/0/doc/1032369/Page1.aspx>

Committee Member Palma-Glennie acknowledged the benefits of the presentation and assessed the current community circumstances. She pondered possible methods that the Action Committee could assist with for the program's integration into the community.

Vice-Chair Shirley David valued around the passing of Council Bill 111. She spoke about attending a recent Finance Committee Meeting where OHCD Administrator Susan Kunz

provided an update around some of the projects she had shared in her presentation at the Joint AC Meeting in January.

Vice-Chair Huerta was eager to see the Action Committee's long-anticipated goals implemented through the Office of Housing.

Community Member Lamakū Mikahala Roy commented on OHCDs efforts. She expressed her concerns around three areas: lack of support to those who financially supported seniors during the pandemic, the dishonorable use of the Royal Ali'i Parkway land, and precedence of assistance to developer's contrary to the local community during the pandemic. Chair Young thanked Ms. Roy for bringing awareness to the situation. Ms. Hirota offered that OHCD is always available to connect.

Community Member Chuck Flaherty requested that the presentation information be shared and asked whether services include assistance with unaffordable prescription drugs. Ms. Hirota stated that the funding assistance is criteria-based and considered on a case-by-case basis.

Presentation slides available here:

<https://records.hawaiicounty.gov/Weblink/1/edoc/115371/Communication%20No.%202022-08%20-OHCD%20Financial%20Empowerment%20Presentation.pdf>

Additional information available here: <https://sites.google.com/view/hawaiicountyrap/home>

2. January 19, 2022 Joint AC Meeting Report - Communication No. 2022-05:

Committee Member Kari Kimura made a motion to approve the January 19, 2022 Joint AC Meeting Report. Seconded by Committee Member Franz Weber. Motion passed with 5 votes aye, 0 votes nay.

Chair Young shared his observance that the other Action Committees shared some of the same struggles with online meetings. AC Member Palma-Glennie who was unable to attend the Joint AC Meeting asked if members in attendance could share a few highlights. AC Member Weber pointed out that the larger group drew more presenters, and more information was shared out. AC Member Kimura concurred with AC Member Weber. Ms. Mercado stated that the agenda was formulated based on AC Members and community requests and interests. She shared an example of the inclusive participation, pointing out that it was Community Member Flaherty, during a Kona Action Committee Meeting, who suggested and then connected staff with Hawai'i Zero Waste who presented at the Joint AC meeting. Chair Young appreciated understanding the island wide similarities and differences around affordable housing needs, meetings dynamics and requirements, and the desire to work towards more progressive and productive meetings.

Communication No. 2022-5 available here:

<https://records.hawaiicounty.gov/Weblink/1/edoc/115369/Communication%20No.%202022-05%20-2022-01-19%20Draft%20Kona%20CDP%20Report.pdf>

3. Action Committee Support of Hawai'i Ports-of Entry Biosecurity Program: Ms. Bartlett gave a brief overview of how the Biosecurity Ports-of-Entry Support Letter (Communication No. 2022-07) came before the Kona Action Committee. She explained that the Puna AC had also considered this on their agenda and members suggested the letter of support be brought

forward to other Action Committees to unify support for the program across Hawai'i Island. Chair Young followed by outlining the modifications made to the letter to reflect invasive species impacting the Kona region. AC Member Palma-Glennie expressed her support around the need to address invasive species and provides support. AC Member Weber suggested that alternative methods would be necessary to manage the issue.

Committee Member Shirley David moved to accept and send Communication No. 2022-07 to the Hawai'i Invasive Species Council. Motion seconded by Committee Member Kari Kimura. Motion failed with 4 votes aye, 1 vote nay, and 1 vote to abstain.

Communication No. 2022-07 available here:

[https://records.hawaiiicounty.gov/Weblink/1/edoc/115370/Communication%20No.%202022-07%20-\(Vetoed\)%20Draft%20Ports%20of%20Entry%20Support%20Letter.pdf](https://records.hawaiiicounty.gov/Weblink/1/edoc/115370/Communication%20No.%202022-07%20-(Vetoed)%20Draft%20Ports%20of%20Entry%20Support%20Letter.pdf)

4. Action Committee Priority Setting Exercise: Ms. Bartlett shared a digitally interactive Priority Setting Exercise to prompt conversations relative to AC interests and projects.

Chair Young specified that while the complete list was important, the exercise was a starting point to modify and work from.

AC Member Weber understood prioritization as unfeasible since the items were equally important and preferred a strategically integrated effort.

AC Member Palma-Glennie agreed with AC Member Weber all priorities should be incorporated to advance the list as a whole.

Community Member Lamakū Mikahala Roy agreed with AC Member Palma-Glennie and encouraged that the disclosure of information and public safety be set as priorities.

Vice-Chair David stated that subcommittees were already in existence around some of the subjects listed and questioned if the remaining were intended to duplicate that process.

Chair Young expressed that enthusiasm needed to be rekindled and requested that the priorities conversation be kept on the radar. He hoped that AC members would continue to work on prioritization between meetings and that the team would be able to create a process through which a visual matrix could be created to show connectivity between priorities.

Community Member Flaherty recalled previous CDP conversations based on AC members serving as "Champions within their spheres of influence" in which they were the subject experts working to expand community outreach and advocated for implementation of the CDP.

AC Member Glennie added that the priorities should be CDP "region-centric" to avoid losing its essence.

AC Member Huerta felt challenged as a new member and requested follow up relative to AC roles and action committee voice.

Chair Young used business items as examples to briefly clarify the advisory role of the AC. He then suggested that the priorities be individually distributed to AC members and the discussion be postponed to a later time.

AC Member Weber shared his interest in serving on the Kona Open Space Subcommittee.

Committee Member Shirley David moved for AC Member Weber's request to be added to the Kona Open Space network Subcommittee. Seconded by Committee Member Kari Kimura. Motion passed with 6 votes aye, 0 votes nay.

- 5. Framework for Action Committee Run Meetings:** Ms. Mercado informed that some Action Committees have expressed interest in hosting their own official meetings. She explained the possibility of the ACs having the option to convene between the already scheduled quarterly meetings and provided high-level framework for running these meetings. Sunshine Law would need to be adhered to and Robert's Rules followed. Ms. Mercado assured that planning staff would provide templates and resource packets and would continue to make connections as the AC needed. Staff would also continue to post the agenda and minutes to ensure compliance with the Sunshine Law.

AC members expressed support and a preference to host more frequent meetings. Planning staff will continue to define roles and explore supports that can be put in place to assist AC hosted meetings.

Presentation slides available here:

<https://records.hawaiicounty.gov/Weblink/1/edoc/115426/Communication%20No.%202022-09-%20Kona%20AC%20Meeting%20Framework.pdf>

6. Election of Action Committee Officers

Due to time restraints, Elections were deferred to the next AC meeting.

Vice-Chair Shirley David made a motion to defer the elections to the next AC Meeting on May 12, 2022. Seconded by Committee Member David Huerta. Motion passed with 5 votes aye, 0 votes nay. [AC Member Kimura was not present for the vote]

PROPOSED AGENDA ITEMS FOR NEXT MEETING:

1. Kona Action Committee Priorities
2. A recap of prior successes can be placed on a future meeting agenda to bring all members up to par.
3. Election of Action Committee Officers.

ADJOURNMENT: *Committee Member David Huerta moved to adjourn. Seconded by Vice-Chair Shirley David. Motion passed with 5 votes aye, 0 votes nay.*

The meeting was adjourned at 7:23 pm.

These minutes and all related documents are available in the Planning Department's Kona Community Development Plan Action Committee folder via the [County of Hawai'i Public Documents Repository](#). These documents may also be requested from the Planning Department by calling (808) 961-8288 or emailing cdp@hawaiicounty.gov.

County Department	Project Name	Project Description	Location/Benefit (Council District)	2022-23	Total estimated project cost
DEM	Kealakehe Wastewater Treatment Plant R-1 Upgrade	Upgrade to Kealakehe Wastewater Treatment Plant to producing and distributing effluent reuse for the island. Project is intended to further treat the effluent to R-1 quality and make it available for irrigation to users at nearby areas including the perimeter of the wastewater treatment plant, Old Kailua Airport (Kailua Park) and areas along the way to the park. Project included R-1 treatment and distribution, and a subsurface flow wetland and soil aquifer treatment system for the purposes of a polishing step and for nutrient removal.	8 (7-8)	5,000	62,679
DEM	Kealakehe Scrap Metal Site Remediation Phase 2	This project is to complete the site remediation work. Majority of the scope of work will be to prepare a master plan for the future improvements for the Kealakehe parcel. The masterplan will be used to show to the DOH that any remaining contaminated areas will be either under buildings, concrete pads, roadways, driveways which will serve as hardscaped areas. Areas that are not under a hardscape will be either fenced, used as buffer, or barricaded.	8 (6-9)	500	500
DPR	Kailua Park New Comfort Station & Concession Areas	The repair, renovation, upgrade, addition, modification, alteration, improvement, demolition, landscaping, development, etc. of park sites, facilities, amenities, infrastructure, utilities, components, etc. necessary to facilitate and support safe use thereof and to address the needs of department staff, programs, activities, communities, recreational groups, etc. to fully or best utilize the department's inventory of land and recreational developments to support the needs of the public.	7 (7-8)	4,000	4,000
DPW	Drainage Improvements- North Kona	This project is for drainage improvements to include (not limited to) constructions of drywells, swales, etc.	7, 8 (7, 8)	286	286
DPW	FHWA Māmalahoa Hwy. Rehab. Part 2 - Kamalani St. to Kalamauka Rd.	This project will pave/resurface the existing roadway.	7-8 (7, 8)	5,000	5,000
DPW	Kealakehe Animal Shelter	This project is for existing facilities addition/renovation/repair or new facility replacement including renovating/repairing salvageable existing facilities.	8 (All)	600	6,600
HPD	Kealakehe Police Station Air Conditioning Unit	New air conditioning unit for the Kealakehe Police Station.	8 (8)	800	800
HPD	South Kona Police Station	Construction of a new South Kona Police Station, including a refueling station and a radio tower.	7 (7)	4,600	7,000
MTA	Kailua-Kona Maintenance Facility	To perform planning, design, engineering, land acquisition, construction of a new base yard in Kailua-Kona to support transit operations in West and North Hawai'i County.	6-7 (6-9)	3,300	10,300
MTA	Hub and Spoke Construction	Construct transit hubs in Pahoa, Kailua-Kona as first priorities and then in Kea'au, Waimea, Waikoloa, Ocean View, Honoka'a, Prince Kuhio Plaza as second priorities. Rehabilitation of Mo'ohau Bus Terminal as a first priority. Transit hubs would include bus bays, shelters, benches, trash cans, bike racks, parking, building with community room/restroom, electric vehicle charging and secure bus parking.	All	1,950	38,300
MTA	Park and Ride Lots	Construct transit hubs in Pahoa, Kailua-Kona as first priorities and then in Kea'au, Waimea, Waiokola, Ocean View, Honoka'a, Prince Kuhio Plaza as second priorities. Rehabilitation of Mo'ohau Bus Terminal as a first priority. Transit hubs would include bus bays, shelters, benches, trash cans, bike racks, parking, building with community room/restroom, electric vehicle charging and secure bus parking.	All	250	5,600

County Department	Project Name	Project Description	Location/Benefit (Council District)	2022-23	Total estimated project cost
OHCD	Kukuioia Emergency Shelter	The Kukuioia project comprises approximately 19.1 acres and will consist of the following components: an emergency shelter and permanent housing for homeless individuals and couples without children, a designated safe overnight parking area, permanent structure for an assessment center, community pavillion with kitchen, health & social services, a career center & library. The objective is provide a welcoming community where individuals experiencing homelessness feel safe, nurtured and respected. A space where those who face great challenges realize their value and self-worth. The community will provide a space for a multi-organization/multi-agency approach to help reduce the number of homeless individuals and couples without children in the Kealakehe and greater North Kona region. The community will provide social services and connectivity to resources to help transition emergency shelter individuals to appropriate housing opportunities. This includes any and all related costs to complete the project.	8 (8)	5,000	12,000
DEM	Hale Halawai SPS Renovation & Force Main Replacement	Renovation of Hale Halawai sewage pump station and replacement of force main, originally constructed in 1962, which is necessary due to age and condition of assets.	8 (7-8)	2,500	6,500
DEM	P19 SPS Renovation and Force Main Replacement	Renovation of P19 sewage pump station and replacement of force main, originally constructed in 1980, which is necessary due to age and condition of assets.	8 (7-8)	2,500	2,500
DEM	Repair/Replacement of Wastewater Facilities	Major repairs and/ or replacement of wastewater facilities at various locations to ensure compliance with regulations under HAR 11-62, Wastewater Systems; HAR 11-54, State Water Quality Standards; HAR 11-55, State Water Pollution Control; and the US Environmental Protection Agency.	1-3,7,8 (1-3, 7, 8)	10,000	63,866
DEM	Rural Transfer Station Repairs and Enhancements	This project is for necessary infrastructure repairs and improvements to the rural transfer sites such as construction of recycling and green waste collection facilities and modifications to refuse collection facilities.	All	2,000	21,974
DPR	Repairs/Improvements to Facilities	The repair, renovation, upgrade, addition, modification, alteration, improvement, demolition, landscaping, development, etc. of park sites, facilities, amenities, infrastructure, utilities, components, etc. necessary to facilitate and support safe use thereof and to address the needs of department staff, programs, activities, communities, recreational groups, etc. to fully or best utilize the department's inventory of land and recreational developments to support the needs of the public.	All	10,000	60,000
DPW	Facilities Improvements	This project is for facilities improvements include (not limited to) additions, ADA compliance, energy efficiency, hazard mitigation, hardening, maintenance, renovations, repairs, etc.	All	11,600	76,600
DPW	FHWA Bridge Inspection and Appraisal	This project is for FHWA/DOT mandated inspection of County maintained in-service bridges that are registered in the National Bridge Inventory (NBI).	All	200	200
DPW	Guardrail Safety Improvements - Islandwide	This project will install roadway guardrail improvements island wide.	All	1,600	1,600
HPD	Holding Cell Improvements (Reappropriation 5299.77)	Plan, design, and construct to modify existing temporary detention facilities in the Hilo, Kona, Puna, North Kohala, and South Kohala districts to comply with the Commission on Accreditation for Law Enforcement Agencies (CALEA) standards, Chapters 71 and 72, which requires separating males, females, and/or juveniles that are detained at the same time. The holding cells shall be separated from each other by sight and sound.	All	600	600

County Department	Project Name	Project Description	Location/Benefit (Council District)	2022-23	Total estimated project cost
MTA	Islandwide Bus Shelters	Construct bus shelters island-wide, as well as replace damaged shelters or relocate bus shelters from areas that are no longer served by Hele-On.	All	300	2,400
MTA	Bus Stop ADA Compliance	Design and construct ADA pads for passengers to board buses at safe locations along State and County right-of-way.	All	625	1,265
MTA	Bus Stop Signage	Purchase 1,000 bus stop signs and decals for installation at each bus stop located throughout Hawai'i Island.	All	400	407
OHCD	Affordable Housing Planning, Feasibility & Design	To increase affordable housing, OHCD is focusing on utilizing State and County owned lands for development. The process to identify and determine lands suitable for affordable housing often requires planning, feasibility, engineering, survey and design services prior to acquisition from the State or seeking out public-private partnerships for development. This funding will allow OHCD to absorb preplanning costs such as planning, feasibility, engineering, or design studies to prepare the parcel for housing development. This includes any and all related costs.	All	1,000	3,000
PLNG	State Research and Planning Program Grant	This project aims to utilize Federal research and planning funds managed by the Hawaii Department of Transportation through the State Planning and Research Program. Eligible activities for the SPR Program include planning of future highway programs and local public transportation systems, and planning of the financing of such programs and systems, including metropolitan and statewide planning.	All	100	100
DPR	Discretionary Projects- Council Districts 6, 7, 8	The repair, renovation, upgrade, addition, modification, alteration, improvement, demolition, landscaping, development, etc. of park sites, facilities, amenities, infrastructure, utilities, components, etc. necessary to facilitate and support safe use thereof and to address the needs of department staff, programs, activities, communities, recreational groups, etc. to fully or best utilize the department's inventory of land and recreational developments to support the needs of the public.	6-8 (6-8)	100	100

From: [Simmy](#)
To: [Planning CDP](#)
Subject: Fwd: New Message
Date: Wednesday, May 11, 2022 8:58:27 AM

Aloha Kona Community Development Members,
Thank you for all you do.

I would like to comment on your agenda for the May 12, 2022 meeting. Super Important are the two items, Infrastructure and Flood Mitigation. The Leeward Planning hearing of April 21, 2022 had many people who testified against new developments of Alii Drive for 62 units. Everyone complained of the emergency evacuation, traffic, and no one was in favor, for more development.

I have attached the video and hope this helps to know of this current situation.

We need "Kuakini Highway" to be widened as a priority.

This Laipala project was a permit of 2009! It should not be extended because originally it was approved because the Alii Highway was suppose to be built.

It has not, yet, the 2008/2009 projects are being given a green light to proceed.

Two already are being built now on Alii Drive. We cannot continue.

I attached the traffic study as its shocking, 163,090 vehicles on Alii drive 2020!

203,300 by 2035! WE CANNOT HANDLE THIS, ITS INSANE!

Tsunami evacuation, there is NO PLAN!!?? KUAKINI WILL BE BLOCKED!!

WE NEED TO GET UP MAUKA, AND SERIOUSLY WE CANNOT RUN FAST ENOUGH.

We have less than 5 minutes. See attached!

The police chief letter is attached, no one seems to hear our CRY.

Another importance to know, Tsunami is triggered by Earth Quakes, and sitting here is MAUNA LOA, THE LARGEST ACTIVE

VOLCANO ON PLANET EARTH! (ALSO, ITS NOT ONLY TSUNAMI, BUT, ALSO BIG WAVE SWELLS AND FIRE!!!

SEA LEVEL RISE 2 FEET BY 2060.

 [Kuakini Hwy Draft EA 2013.pdf](#)

Regards to Flood Mitigation.

We need to Keep Agricultural Land in Agricultural. By allowing more density without our Roads is a Disaster. Planting Trees and Cultural Landscape is Crucial. Climate change we are already having more rain in Kailua Kona. More development Mauka already is affecting Makai.

Allow No More Rezoning of Ag lands, until our infrastructure is up to par.

Errosion and all the Excavating going on now, the next Big Flood, our Blue Ocean will be Brown. Run Off will Polute our OCEAN.

PLEASE PLAN FOR THE FUTURE GENERATION WELL AHEAD!!

MOTHER NATURE IS UNPREDICTABLE AND WE MUST BE PREPARED OR WE ARE DEAD AND OUR NATURAL RESOURCES.

GOT TO MALAMA NOW.

Mahalo,

Simmy McMichael

Kailua Kona

[Leeward Planning Commission - YouTube](#)



Alii Drive Traffic Forecast 2035

B. Volumes

1. Background Growth

The Federal-Aid Highways 2035 Transportation Plan for the District of Hawaii (CH2M Hill, 2014) forecasts a compounded annual increase of 1.48% in North Kona from 2020 to 2035 (see Table 7).

Table 7: Traffic Forecast – Daily Vehicle Trips in North Kona

Year	Daily Vehicle Trips	Growth Rate
2020	163,090	1.48%
2035	203,300	

203,300 Daily!!!

Source: *Federal-Aid Highways 2035 Transportation Plan for the District of Hawaii* (CH2M Hill, 2014)

Historical traffic volumes along Alii Drive show a steady increase after 2016 with 2017-2021 (excluding year 2020) volumes showing an annual increase of 1.68% along Alii Drive between Laaloa Avenue and Queen Kalama Avenue. Similarly, the 2017-2019 volumes on Route 11 between Lako Street and Naniloa Street increased by 1.75% annually. These annual growth rates of 1.68% and 1.75% are in line with the 1.48% growth projections from the Long-Range Transportation Plan.

Therefore, a 1.48% annual growth rate was applied to the through traffic along Alii Drive and Route 11



County of Hawaii

POLICE DEPARTMENT

349 Kapiolani Street • Hilo, Hawaii 96720-3998
(808) 935-3311 • Fax (808) 961-2389

March 11, 2008

Mr. Ron Terry
Principal
Geometrician Associates
P.O. Box 396
Hilo, Hawaii 96721

Dear Mr. Terry:

SUBJECT: Environmental Assessment for Royal Ali'i Planned Unit Development,
Kaunamalu, North Kona, Island of Hawaii
TMK: 7-7-04:57 & 58

Staff has reviewed the above referenced document and submits the following comments:

- Any additional development/project utilizing Ali'i Drive as its exclusive access will adversely impact traffic conditions throughout Ali'i Drive, particularly during peak traffic hours or during an emergency condition.
- Recommends against any further development/project in this area until such time as the proposed Kahului-Keauhou Parkway has been completed and is open to traffic.
- Recommend plan to include improvements at access intersections to the subdivision consisting of turning and acceleration lanes.

Should you have any questions, please contact Acting Captain Chad Basque, Commander of Kona Patrol, at 326-4646 extension 249.

Mahalo,

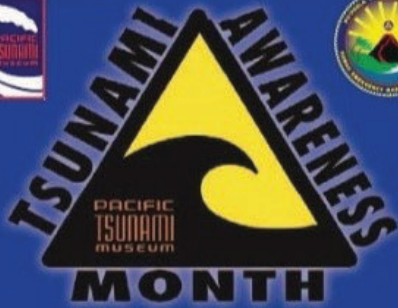
LAWRENCE K. MAHUNA
POLICE CHIEF

HENRY J. TAVARES JR.
ASSISTANT CHIEF
AREA II OPERATIONS

CB

gpx

APRIL IS



KNOW THE WARNING SIGNS



FEEL the earth shake (earthquake) so strong that you feel you cannot stand.



SEE the ocean recede, swirl or act unusual. A tsunami is not one giant wave, but a series of waves.



HEAR the roar of the tsunami that sounds like a jet aircraft or freight train.

IF YOU EXPERIENCE ANY OF THE ABOVE:

Evacuate immediately to safe zones — inland to high ground and away from coastal areas, or vertically to the 4th floor or higher of a reinforced concrete building.

PLAN AHEAD, BE PREPARED

BEFORE

Know the evacuation zones.
Prepare an emergency kit.
Sign up for emergency wireless alerts.



DURING

If you are near the ocean and you feel the earth shake, move immediately to higher ground.
Monitor the situation from wireless alerts, TV, and radio.

AFTER

Return home only when authorities say it is safe to do so. There could be hazards & debris in certain areas, and roads may still need to be clear for rescue & recovery efforts.

ARE YOU READY?

Visit ready.hawaii.gov for information on how to prepare for an emergency.

Communication No. 2022-11

MARCH 9, 1957: KNOW YOUR HISTORY

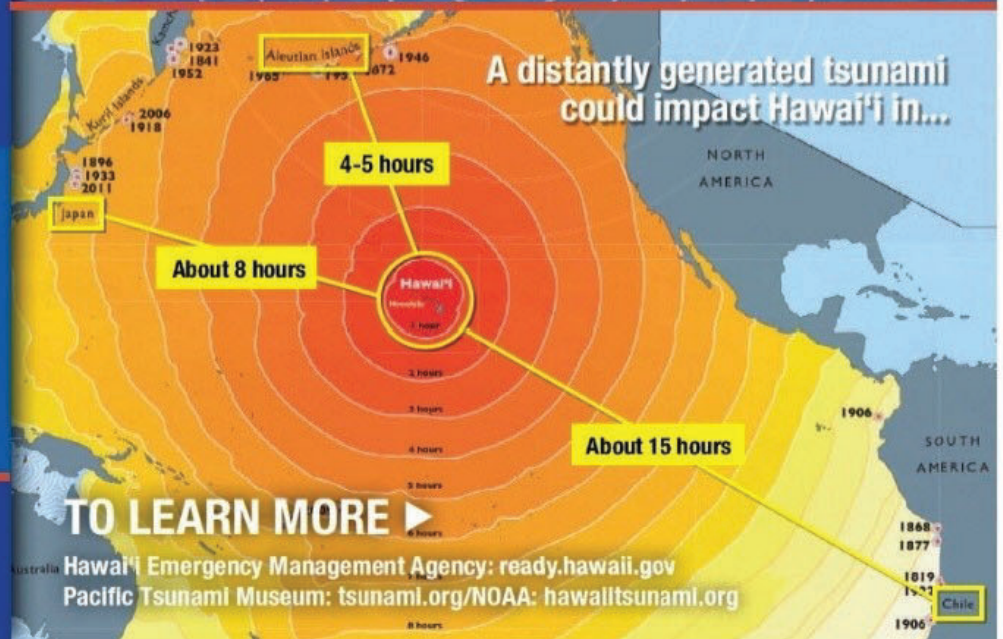
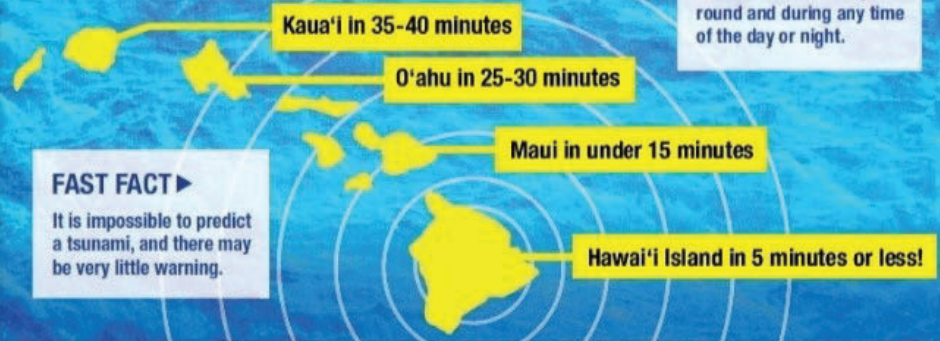


Sixty-five years ago, a magnitude 8.6 earthquake struck off the Aleutian Islands of Alaska, creating a tsunami. It hit the Hawaiian islands hours later and led to two deaths and generated wave run-ups over 50 feet high, causing damage to Kaua'i and O'ahu totaling \$50 million at current prices.

NOW IS THE TIME TO PREPARE

It is not a matter of *if*, but *when*, the next tsunami will strike.

A tsunami generated from the coast of Hawai'i Island could impact...



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4/1/2022

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For more information on current monitoring of Mauna Loa volcano, see: <https://www.usgs.gov/volcanoes/mauna-loa/monitoring>

Mauna Loa largest active volcano on our planet. Advisory Yellow

Background:

Mauna Loa is the largest active volcano on our planet, rising gradually to 4,170 meters (13,681 feet) above sea level. Its long submarine flanks descend an additional 5 kilometers (3 miles) below sea level to the ocean floor. The ocean floor directly beneath Mauna Loa is, in turn, depressed by the volcano's great mass another 8 kilometers (5 miles). This places Mauna Loa's summit about 17,000 meters (56,000 feet) above its base. The enormous volcano covers half of the Island of Hawai'i and by itself amounts to about 85 percent of all the other Hawaiian Islands combined.

Eruptions typically start at the summit and, within minutes to months of eruption onset, about half of the eruptions migrate into either the Northeast or Southwest Rift Zone. Since its first well-documented eruption in 1843, the volcano has erupted 33 times with intervals between eruptions ranging from months to decades. Mauna Loa last erupted in 1984.

Mauna Loa eruptions tend to produce voluminous, fast-moving lava flows that can impact communities on the east and west sides of the Island of Hawai'i. Since the mid-19th century, the city of Hilo in east Hawai'i has been threatened by seven Mauna Loa lava flows. Mauna Loa lava flows have reached the south and west coasts of the island eight times: in 1859, 1868, 1887, 1926, 1919, and three times in 1950.

More Information:

Mauna Loa activity summary also available by phone: (808) 967-8866

Mauna Loa webcam images: <https://www.usgs.gov/volcanoes/mauna-loa/webcams>

Mauna Loa photos/video: <https://www.usgs.gov/volcanoes/mauna-loa/photo-and-video-chronology-mauna-loa>

Mauna Loa maps: <https://www.usgs.gov/volcanoes/mauna-loa/maps>

Mauna Loa FAQs: <https://www.usgs.gov/volcanoes/mauna-loa/faqs>

LOCATION: Ali'i Dr btwn La'aloa Ave and Queen Kalama Ave

QC JOB #: 15515809

SPECIFIC LOCATION:

DIRECTION: NB, SB

CITY/STATE: Kahaluu-Keauhou, HI

DATE: Aug 19 2021 - Aug 19 2021

Start Time	Mon	Tue	Wed	Thu 19 Aug 21	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				28		28			28	
01:00 AM				13		13			13	
02:00 AM				11		11			11	
03:00 AM				12		12			12	
04:00 AM				22		22			22	
05:00 AM				70		70			70	
06:00 AM				276		276			276	
07:00 AM				616		616			616	
08:00 AM				533		533			533	
09:00 AM				555		555			555	
10:00 AM				598		598			598	
11:00 AM				611		611			611	
12:00 PM				633		633			633	
01:00 PM				679		679			679	
02:00 PM				667		667			667	
03:00 PM				701		701			701	
04:00 PM				725		725			725	
05:00 PM				641		641			641	
06:00 PM				474		474			474	
07:00 PM				303		303			303	
08:00 PM				227		227			227	
09:00 PM				161		161			161	
10:00 PM				91		91			91	
11:00 PM				65		65			65	
Day Total				8712		8712			8712	
% Weekday Average				100%						
% Week Average				100%		100%				

**8 712 day Ali'i Laaloa
and QueenK**

HEWLETT-PACKARD



County of Hawai'i

POLICE DEPARTMENT

349 Kapi'olani Street • Hilo, Hawai'i 96720-3998
(808) 935-3311 • Fax (808) 961-2389

September 3, 2013

Mr. Ron Terry
Geometrician Associates
P.O. Box 396
Hilo, Hawai'i 96721

Dear Mr. Terry:

SUBJECT: ENVIRONMENTAL ASSESSMENT REVIEW FOR PARCEL 26 AT KAHALU'U
RESIDENTIAL PROJECT FOR TOWNE DEVELOPMENT OF HAWAII, NORTH KONA
TMK: 7-8-010:004 AND 7-8-014:013

The above-referenced Draft Environmental Assessment (DEA) has been reviewed, and we have the following comments to offer at this time.

The main concern would be the congestion of traffic from a development of this size. A review of the DEA finds that the developer will prepare for future roadway infrastructure but the infrastructure will not be in place by the completion of the development. We request that the developer be required to complete the additional roadway infrastructure prior to the completion of the development as inadequate roadways for a development this size would hinder or cause a bottle neck type of situation should the need for emergency evacuation arise.

Should you have any questions, please contact Captain Randal M. Ishii, Commander of the Kona District, at 326-4646, extension 299.

Sincerely,

HARRY S. KUBOJIRI
POLICE CHIEF

PAUL H. KEALOHA JR.
ASSISTANT POLICE CHIEF
AREA II OPERATIONS



May 10, 2022

**Kona Community Development Plan
Action Committee Meeting**

Dear Committee Members.

This testimony aims to urge the Committee and the County of Hawai'i to include water resource sustainability as a top priority in the design and function of our communities.

Article XI, section 1 of Hawai'i's Constitution establishes that "all public natural resources are held in trust by the State for the benefit of the people," and Article XI, section 7 of Hawai'i's Constitution specifically references water and includes the directive "to protect, control, and regulate the use of Hawai'i's water resources for the benefit of its people." The need for wise water use and reuse is a Constitutional and Environmental Imperative.

Historical rainfall data and scientific projections paint a dire picture for the future of water resources on our island. We are part and parcel of global climate changes. Researchers tell us that in the next 20 to 30 years, our drought is likely to worsen with a 30% reduction in rainfall. We currently have a 14% reduction. This will eventually mean our freshwater aquifer will be much smaller. We must begin now to implement conservation and reuse actions to provide for the future well-being of our people.

The following is a priority list of actions we can take.

1. Integrate all county functions, including the Department of Water Supply, to account for their water use and conservation impact.

2. Design homes and communities for freshwater conservation to include landscaping and home water conservation devices. Landscapes that do not require irrigation could be necessary for new developments.
3. Implement the sections of the current Uniform Plumbing Code (UPC) that provides for home greywater reuse
4. Design communities to capture and redirect stormwater for beneficial uses.
5. Institute plans and techniques that significantly reduce the impervious structures on the land, such as vast streets and parking lots.
6. Institute Grubbing and Grading regulations that effectively mitigate rainfall runoff and erosion
7. Where wastewater treatment plants provide sewage treatment, upgrade the plants to reuse plants (reuse plants do not discharge wastewaters HAR §11-62-27), treat the water to the highest reuse standard, R1, and provide the water for agriculture, public parks and recreation, and other commercial uses.
8. In new developments, neighborhood scale wastewater treatment may be more economical than conveying the sewage long distances in buried sewer lines. In this case, the reclaimed water can be returned to the home for toilet flushing and landscape needs.
9. In new home construction, install waste systems that separate the black water from the grey water. This will facilitate greywater reuse and reduce the size and cost of onsite sewage treatment. This step will augment the cesspool conversion process.
10. Prohibit the use of Injection Wells for the disposal of human wastewaters. Injection wells on the island transfer pollutants to the subterranean estuaries common to all coastal areas of the island

These actions will affect more than doubling fresh groundwater for human needs and prevent draconian measures when severe water shortages arise. Such measures create severe economic consequences. These actions listed above serve and honor the Public Trust Doctrine of our State Constitution.

/s R.H. Bennett Ph.D.

Former Chair of the Environmental Management Commission, COH
Environmental Science Researcher, Hawai'i Island



Adding to the County of Hawai‘i’s Sustainability Conversation: A Discussion on Water Law & Policy

Richard H. Bennett Ph.D. and Rhiannon R. Tereari‘i Chandler-‘Īao, Esq. of
Waiwai Ola ‘Ohana¹

Summary

The County of Hawai‘i (COH), under the leadership of Mayor Mitch Roth, has engaged the community in two broad online conversations on the topic of sustainability. It is the purpose of this discussion paper to build on these conversations, and invite our best systems sustainability thinking to engage the topic of water – our most critical resource, in all of its forms.

Introduction

Central to any climate resiliency strategy or sustainability plan must be our island’s water security. Hawai‘i Island has a long history of drought episodes. We have dealt with these short-term events with various site-specific mitigations, however, any changes in how water is managed, allocated, and used, remain elusive and are often controversial.

With the guidance of the National Research Council, the Environmental Protection Agency adopted the following definition of Sustainability.

“Sustainability is based on a simple principle: Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment. Pursuing Sustainability is to create and maintain the conditions under which humans and nature can exist in productive harmony to support present and future generations” (USEPA 2021).

¹ Waiwai Ola ‘Ohana was formerly organized as Waterkeepers in Hawai‘i. While names will be used interchangeably in this document, all “Waterkeeper” programs currently fall under Waiwai Ola ‘Ohana.

Our survival and well-being is largely dependent on healthy breathable air and clean water resources. In Hawai‘i, freshwater is derived from rainfall and forest dew which support healthy aquifer systems. Unlike other states, underground rivers or aquifers that move water over great distances, are non-existent in Hawai‘i. Rainfall distribution on our island is highly variable. Water availability, like the climate, differs regionally. Distances of only a few miles can mean the difference between a rainforest and a desert.

Thus, it seems somewhat incongruent that our water resources were not a substantial portion of the recent Hawai‘i Island sustainability conversations. A major rainfall study provides an alarming conclusion.

“Almost imperceptibly, rainfall over the Hawaiian Islands has been declining since 1978, and this trend is likely to continue with global warming through the end of this century, according to scientists at the University of Hawai‘i at Mānoa and the University of Colorado at Boulder”(Oliver 2013).

The historical trend for the dry or Kona side of Hawai‘i Island is particularly concerning.

“From 1920 to 2012, over 90% of the state experienced drying trends, with Hawai‘i Island, and in particular the western part of the island, experiencing the largest significant long-term declines in annual and dry season rainfall” (Frazier 2016).

Our reservoir, and the only lifeline for true sustainability, is a floating lake or lens of freshwater sitting on top of the seawater that intrudes through the fractured rock and lava at and below sea level. Forty feet of floating freshwater provides one foot of water above sea level. Inland and below the high rainfall zones, hundreds of feet of freshwater “floats” in a lens and thus is available for domestic pumping. That same lens drains away in a perpetual slow migration to the sea. Recharge of the freshwater lens is rainfall-dependent (USGS, 2000).

Many authors stress the issue of water resource sustainability, notably:

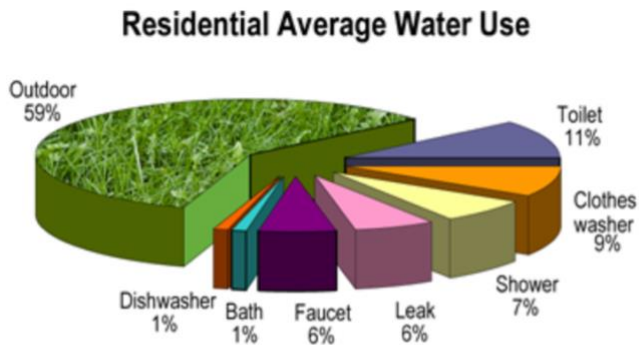
“Given that approximately 70% of the annual rainfall happens during the wet season, Hawai‘i is expected to face an overall reduction in annual rainfall leading to a decline in sustainability of groundwater recharge” (Burnett and Wada, 2014).

SUSTAINABLE WATER RESOURCE POLICY AND PRACTICE

The prevailing practice on Hawai‘i Island for water resource management is drill and pump. The policy of drill and pump is predicated on the sustainable yield of the aquifer. Of concern is the fact that the current sustainable yield does not take into account decreased rainfall and decreased recharge.

People need high-quality potable water. Water is essential for drinking, bathing, cooking, waste disposal, and cleaning, among other needs, however, individual and family water use only accounts for about 25% of household water usage. Where does the balance of the water go?

Figure 1. Home Water Use



Source: American Water Works Association Research Foundation, End Uses of Water
End Uses of Water, source: American Water Works Association Research Foundation

Outdoor irrigation is the largest domestic water user, however, our irrigation water could be used more efficiently and sustainably. The choice of plant species and the irrigation method are areas with excellent conservation potential. Xeriscapes in the southwest states are notable examples of sustainable and effective water conservation practices. The Board of Water Supply for the City and County of Honolulu states that with the proper choices, a homeowner can save 30 to 50% of the water used on landscaping (2021 Board of Water Supply, City and County of Honolulu). This option conserves water, reduces the family water bill, and addresses multiple crucial sustainability issues.

Accordingly, irrigation water conservation programs must be an essential component of any sustainability effort for the County of Hawai‘i. Water conserved for other domestic demands will be far less expensive than increasing pumping capacity for additional water. For select wells, such savings can reduce saltwater uptake from over-pumping and lower the cost of blending water to manage excessive salts. The challenge for the COH is how best to achieve sustainable policies and water conservation education. The Department of Water Supply is not noted for progressive water conservation policies and effective public education. A change in policy and programmatic efforts will likely require leadership and engagement from the Mayor and Council to effect significant water conservation measures.

Grey Water Reuse

Every home has additional options to conserve even more freshwater. Fixing leaks and reusing the greywater from the laundry and shower will conserve about 22% of home water resources. When combining this conservation with proper irrigation, a household water savings can approach 72%. Gray water from the laundry, shower, and bathroom sinks can be lawfully and safely reused on-site to irrigate landscaping. In some cases, little if any freshwater is needed. The new provisions of the Uniform Plumbing Code (UPC 2012) allow for greywater reuse.

Greywater reuse applications will help conserve wastewater treatment plant capacity as sewer flows would also be reduced. Sufficient black water will remain in the system for gravity flow sewers to remain functional. A new COH policy enabling, encouraging, or even mandating greywater reuse for commercial and residential units would go a long way to addressing local water sustainability.

Wastewater Reuse

When greywater is comingled with toilet or black water (sewer water), as is the current practice, it all becomes black water and requires a higher level of treatment to remove nutrients and incidental pathogens. Such treatment is expensive and even more costly if the treated water is then discarded. The cost of legally dumping secondarily or partially treated black water is very high in light of the recent U.S. Supreme Court ruling on wastewater injection wells in Lahaina. It is no longer lawful to discharge wastewater to drains or injection wells that lead to Waters of the United States without an NPDES permit. Where the receiving water is “impaired” under the US Clean Water Act provisions, as it is in West Hawai‘i, permits will not be issued unless any further impairment is mitigated.

It is more economical to treat blackwater to R1 reuse standards than it is to permit wastewater discharge to the ocean. Reusable R1 water has a market value. Other grades of wastewater do not. R1 water may be reused for landscaping, golf courses, and agricultural uses. In each case, the reused water provides revenue to the COH and replaces some freshwater pumping distribution and use, which is a critical conservation measure for climate resiliency.

As the COH builds out new water infrastructure for subdivisions, parks, and open space, the reuse of R1 water is key to sustainable development. For example, vacuum flow sewers can successfully move high solids blackwater and have other advantages over gravity lines, including an almost zero risk of leakage to the environment, groundwater, and coastal seawater. Moreover, vacuum sewer lines are far less costly to install and are well suited to regional small-scale wastewater treatment facilities.

The COH would be well advised to adopt and implement new water use and reuse policies as soon as possible, as hundreds of new homes and many subdivisions await approvals and construction. Once they are built, without a reuse plan, the option is lost.

Water from 50,000 Cesspools

By 2050 all cesspools must be retired, converted, or retrofitted. The water will have to be further treated to remove nutrients and the occasional pathogen. As opposed to being discharged to the ground, the water could be collected and reused as greywater for landscaping. In so doing, we remove 90% of the nutrients that are currently over nourishing our coastal waters, killing corals and turning our clear blue waters green and brown. A recent report from UH to the Legislature details the extent of human waste nutrients flowing to the sea (Smith et al. 2021).

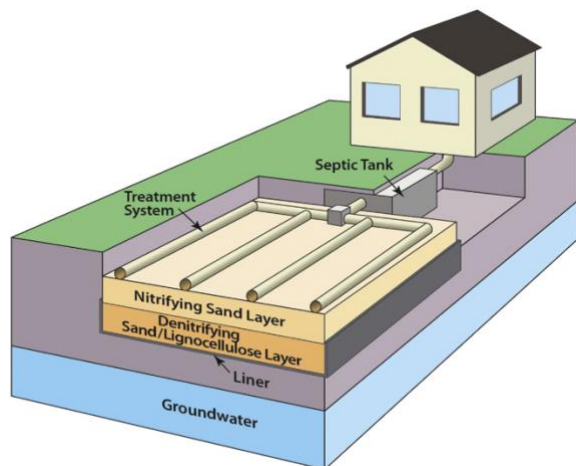
There is no question that we must stop using holes in the ground, cesspools, to dispose of human waste. The huge question remains, what are the alternatives?

From today until 2050, thousands of new homes will be constructed on Hawai‘i Island and it is very likely, at least in the near term, the Hawai‘i Department of Health will recommend and approve traditional septic systems as a primary alternative to cesspools. Unfortunately, this practice runs contrary to overwhelming scientific data revealing that the effluent from a modern

septic system is functionally no better than that of a cesspool. States from Maine to Florida are requiring the removal and retrofitting of septic systems. In these states, coastal waterways have become eutrophic, fish kills have occurred, and red and brown tides replace the deep blue waters as the quality of life and coastal property values plummet due to poor water quality from poor wastewater management.

A very comprehensive research project in Florida documents the impacts of conventional septic systems. The waste nutrients, nitrogen, and phosphorus are ubiquitous in coastal waters. The isotopic signatures of nitrogen and the presence of sucralose in coastal waters leave no doubt as to the source. (Herren 2021). In Sarasota Bay, when septic systems were removed there was a 64% reduction in N pollution, which was reflected in relatively low human waste nitrogen isotope values $\delta^{15}\text{N}$ of $\sim +3.8\text{‰}$ (SBEP, 2014). Accordingly, it is important to note that communities across the nation are removing septic systems while Hawai'i is approving them. As a result, the nutrient loads to the nearshore waters will likely continue, which is a practice that is not ecologically sustainable.

Figure 2. Nitrogen Reducing Biosystem (NRB) (Gobler 2021)



The technology to best replace or convert cesspools to systems that protect water quality remains in development for Hawai'i. However, states on the East Coast demonstrate many suitable alternatives. The most promising among them is the NRB or Nitrogen Reducing Biosystem (Figure 2.). The term belies simplicity. The leach-line field overlies two layers, one layer of sand over one layer of sand and wood shavings, a 50/50 mix. The layers create unique microbial habitats. The top layer is aerobic and the bacteria convert waste nitrogen products into nitrate. The lower layer is anaerobic and the microbes there act on the

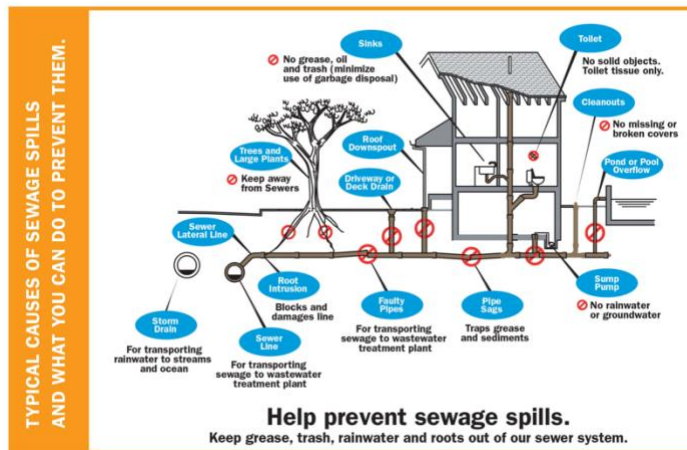
nitrate and convert it to nitrogen gas released to the atmosphere. The iron content of the sand absorbs phosphate removing it from the wastewater. This simple NRB layer system adds marginal cost to a conventional septic system while removing up to 90% of the nutrients and a 100,000 fold reduction in the fecal bacteria indicator *E. coli*, according to a study for the state of Massachusetts (Heufelder 2019). This type of system is recognized and approved by the State of Florida. The State of New York approves other denitrifying systems that meet its nutrient reduction requirements (Gobler 2021).

Stormwater Redirection

Occasionally, it rains very hard on Hawai'i Island and vast quantities of stormwater rage down streets like wild rivers. The COH has thousands of "dry wells" that function to direct some of this flow into the porous ground below. In some cases, the stormwater is directed to natural drainages that can also become raging rivers, carrying mud and debris to the sea. These flooding events are very deleterious to our nearshore ecosystem. The fine silts alone can smother and

destroy a coral reef. Many communities have learned that promoting hard surfaces like asphalt and concrete add volumes of sediment to the storm flows. The County could design natural water catchments and allow the stormwater at the top of the watershed to percolate and settle into the ground before collecting roadway debris and pollutants. This water flow can help offset seawater intrusion, common to coastal areas, and help protect the anchialine ecosystems unique to the Kona Coast.

Stormwater Education



Each year, there are nearly 400 sewage overflows statewide from Hawai‘i’s sewer systems. Spills of untreated sewage can enter streams and the ocean, endangering public health and compromising our natural resources. Rainwater entering the sewer line is a major cause of sewage spills. Too much rainwater overwhelms the system to the point where untreated wastewater spills out of manholes and can even back up into homes through toilets and drains.

The County can help people learn how they can make a difference. With each water bill, the County could include a diagram similar to the one above produced by Hawai‘i American Water.

In 2020, Hilo Bay Waterkeeper launched a social media campaign to educate residents about land-based sources of pollution and impacts on Hilo Bay. Our website also contains information about how ordinary citizens can play an active role in improving water quality. In partnership with the County Department of Public Works, Waiwai Ola ‘Ohana is working to raise awareness about stormwater pollution with a new storm drain stenciling youth program.

In 2021, Waterkeepers began working with a certified FAA pilot to collect aerial footage of Hilo’s ahupua‘a (watershed) system and include the three main rivers: Wailoa, Wailuku, and Honoli‘i. Our goal is to use this as an awareness tool for residents who may not realize their impact on the ‘āina (land) and people. This would also be used to pin-point local agricultural and commercial runoff washing into the rivers and observe the flow events of the rivers from the top of the watershed to the coastal waters. Alongside runoff testing, this drone footage is key in community engagement



actions to tell the story of the effects communities can have on their watershed and how we can positively shift how much pollution we put into our coastal communities.

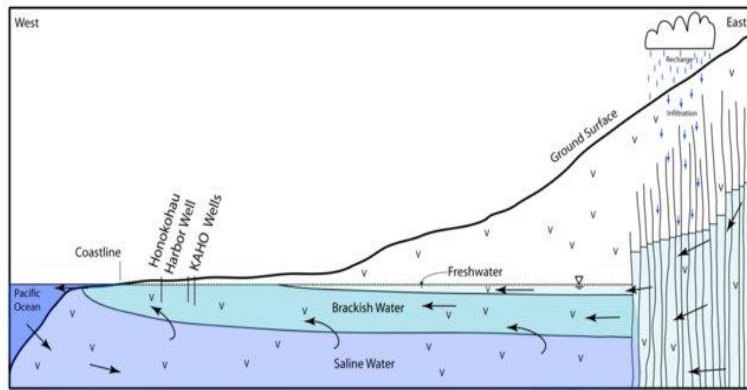
Waiwai Ola ‘Ohana will continue to provide outreach and education by collaborating with fishponds and other community groups as well as holding virtual and/or in-person community talks about stormwater runoff and its effect on our watersheds and our health. Our continuing goal is for our residents to become aware of pollution impacts and work to reduce the flow of pollution to our nearshore waters.



The Ocean Resource

Water inexorably flows downhill to the sea. Unlike wastes in the Mississippi River that flow hundreds of miles into the Gulf, the island's water makes its trip to the sea more directly. On the Hilo side, about 212 rivers and streams flow continuously, allowing people to see the hydrologic cycle in action. The Wailuku River in Hilo is a dramatic example. Its watershed is a vast mountainside. Heavy rains create a torrent of brown water carrying dirt and fine sediments to Hilo Bay. Less apparent are the urban drainages of the Waiākea and Wailoa rivers. A drive through Hilo town reveals many storm drains and gutters that convey street rain runoff to these rivers and the bay.

Figure 3. Kona's Subterranean Estuary (Johannesson 2017)



There is only one stormwater channel in the Kona area that drains Holualoa mauka. Most rainfall runoff migrates underground and joins the subterranean estuary that flows under the entire Kona plain. Figure 3. depicts a model of the water flow. University of Hawai'i hydrologists suggest the brackish ground water flows into the sea at the rate of about 2.5 million gallons

per mile of coastline, per day (Peterson 2009).

This groundwater flow is rich in dissolved pollutants, ranging from fertilizers and wastewater nutrients to many other chemicals used in the home and the community. Two chemical markers of "human activity" found in the groundwater are sucralose, the artificial sweetener, and anomolous levels of Gadolinium, a metal used in medical MRI imaging. Both chemicals are excreted unchanged in human wastes, and serve as proof of concept markers for human pollutants in the groundwater flowing into the sea.

We have designed our communities to drain to the sea, emphasizing flood mitigation, however, this feature has also created the largest waste sink on the planet. Globally, the coastal waters of most continents are heavily polluted by both intent and ignorance. A recent study identified 135,000 sites on the planet where sewage wastes flow to the sea (Ogasa 2021). As we look to a more progressive future, we know that using the sea as a waste dump is not sustainable.

We have made some progress regulating and controlling "Point Source" pollution in Hawai'i. A more significant challenge is redesigning communities to prevent "Non-Point Source" pollutants from joining the water as it flows downhill to the sea. We must account for pollutants in runoff, be it motor oil on streets, or the water seeping out of the new home septic systems. There is actually a requirement for this accounting. A TMDL (Total Maximum Daily Load) study is required by the Clean Water Act for watersheds that drain into any "impaired"² watershed. Almost all ocean sites on the Kona Coast are impaired as listed by the EPA, however, the State of Hawai'i has conducted no TMDL's on Hawai'i Island, other than those developed in partnership with nonprofits.

² Section 303(d) U.S. Clean Water Act.

Figure 2. Kailua Bay May 2020 Phytoplankton Bloom



Once our coastal waters become polluted, our single greatest economic asset - one that attracts both visitors and locals - will become a dangerous nuisance. Figure 2 shows a dark green phytoplankton bloom in Kailua Bay that reduced visibility to under 3 feet. This is a very popular ocean swimming area, used by residents and visitors pursuing exercise and competing in world famous events. The blue line shows a major

nutrient-rich submarine groundwater discharge.

The economic impacts from similar greening events will be disastrous. Even when the ocean may still look deep blue and “AA Pristine” (a state policy requirement), the scientific data portends an ecological tipping point. Once tipped, reversing the ecological collapse is nearly impossible.

Water is the Key to Sustainability

As briefly outlined above, sustainability of our water resources is the kingpin for just about every other sustainability issue. The COH and the DWS must coalesce to implement a whole range of sustainable water policies and practices. Without ample high-quality water for all, at affordable prices, sustainability becomes moot. It is time to become proactive, pick the can up and fix these problems, rather than continue to kick the can down the road of climate resiliency.

The Public Trust and County Duties³

Article XI, section 1 of Hawai‘i’s Constitution establishes that “all public natural resources are held in trust by the State for the benefit of the people,” and Article XI, section 7 of Hawai‘i’s Constitution specifically references water and includes the directive “to protect, control, and regulate the use of Hawai‘i’s water resources for the benefit of its people.” Article XI, section 7 also establishes the State Commission on Water Resource Management (Water Commission), which is currently housed within the Department of Land and Natural Resources.

Although the Water Commission has the primary kuleana under Hawai‘i law to protect Hawai‘i’s fresh water resources, other government decisionmakers, including state and county agencies, have an independent duty to conserve natural resources, including water.⁴ In Hawai‘i,

³ This section has been excerpted from: D. Kapua‘ala Sproat, *Kūkulu Waiwai: Building Pono Water Management in Hawai‘i Nei*, Ka Huli Ao Center for Excellence in Native Hawaiian Law Boards & Commissions Training, pp. 2, 4-5 (July 2021).

⁴ See HAW. CONST. art. XI, § 1; *Kelly v. 1250 Oceanside Partners*, 111 Hawai‘i 205, 225, 140 P.3d 985, 1005 (2006).

we trace the origin of the public trust to Indigenous custom and tradition, which firmly established that natural resources, including water, were not private property, but were held by the government for the benefit of the people. Today, “the people of [Hawai‘i] have elevated the public trust doctrine to the level of a constitutional mandate.”⁵ Pursuant to the Constitution, Water Code, and common law, the “state water resources trust” applies to “all water resources without exception or distinction.”⁶

The public trust also prescribes a higher level of scrutiny for private commercial uses.⁷ Hawai‘i decision-makers must, therefore, closely examine requests to use public resources for private gain to ensure that the public’s interest in the resource is fully protected.⁸ Agencies “may compromise public rights in the resource pursuant only to a decision made with a level of openness, diligence, and foresight commensurate with the high priority these rights command under the laws of our state.”⁹ After all, “[t]he duties imposed upon the state [and counties] are the duties of a trustee and not simply the duties of a good business manager.”¹⁰ For example, the Hawai‘i Supreme Court ruled that the public trust requires that agencies do more than simply impose requirements and conditions; they also have an obligation “to ensure that the prescribed measures are actually being implemented after a thorough assessment of the possible adverse impacts . . . on the State’s natural resources.”¹¹

In addition to the public trust, the Hawai‘i Supreme Court also adopted the “precautionary principle,” ruling that “the lack of full scientific certainty should not be a basis for postponing effective measures to prevent environmental degradation” and that “where [scientific] uncertainty exists, a trustee’s duty to protect the resource mitigates in favor of choosing presumptions that also protect the resource.”¹²

Issues for Hawai‘i decision-makers often arise in the context of permits or other applications that may impact streams, springs, groundwater, or traditional and customary Native Hawaiian practices dependent upon those resources, such as kalo cultivation or gathering practices. For example, a planning commission may receive a permit application from a water bottling company. Or, the Board of Land and Natural Resources may want to lease state land where streams are diverted. Many different scenarios arise in which decision-makers must consider their duty to protect and conserve Hawai‘i’s precious water resources.

We pray that this discussion paper will greatly further our efforts toward sustainable use of water, in all of its forms, for the benefit of all people of our island home.

END

⁵ *Waiāhole I*, 94 Hawai‘i 97, 131, 9 P.3d 409, 443 (2000).

⁶ *Id.* at 133, 9 P.3d at 445.

⁷ *Id.* at 142, 9 P.3d at 454.

⁸ *See id.*

⁹ *Id.* at 143, 9 P.3d at 455.

¹⁰ *Id.*

¹¹ *Kelly*, 111 Hawai‘i 205, 231, 140 P.3d 985, 1011 (2006).

¹² *Waiāhole I*, 94 Hawai‘i at 154, 9 P.3d at 466.

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UPC, Uniform Plumbing Code 2012, Adopted by Hawaii County.

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