# Climate Action, Resilience, and Environment Committee on 2021-05-25 1:30 PM - Reconvened from 05/19/2021 at 9:00 a.m.;  End time:  3:52 p.m.

**Meeting Time: 05-25-21 13:30**

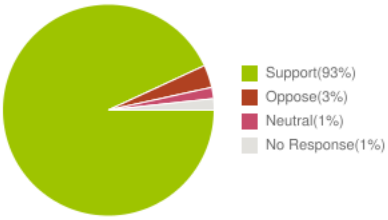
## eComments Report

| Meetings | Meeting Time | Agenda Items | Comments | Support | Oppose | Neutral |
|---|---|---|---|---|---|---|
| Climate Action, Resilience, and Environment Committee on 2021-05-25 1:30 PM - Reconvened from 05/19/2021 at 9:00 a.m.;  End time:  3:52 p.m. | 05-25-21 13:30 | 3 | 58 | 54 | 2 | 1 |

### Sentiments for All Meetings

The following graphs display sentiments for comments that have location data. Only locations of users who have commented will be shown.

Overall Sentiment



## Climate Action, Resilience, and Environment Committee on 2021-05-25 1:30 PM - Reconvened from 05/19/2021 at 9:00 a.m.; End time: 3:52 p.m.

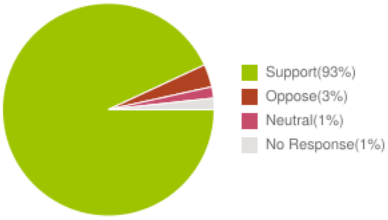
**05-25-21 13:30**

| Agenda Name | Comments | Support | Oppose | Neutral |
|---|---|---|---|---|
| A G E N D A | 3 | 2 | 0 | 1 |
| CARE-47 CC 21-190 RECOGNIZING CLIMATE CHANGE AND RESILIENCE IN THE COUNTYWIDE POLICY PLAN (CARE-47) | 1 | 1 | 0 | 0 |
| CARE-50 CC 21-232 MORATORIUM ON VISITOR ACCOMMODATIONS DEVELOPMENT (CARE-50) | 54 | 51 | 2 | 0 |

### Sentiments for All Agenda Items

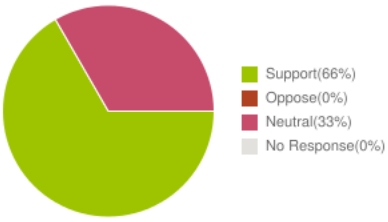
The following graphs display sentiments for comments that have location data. Only locations of users who have commented will be shown.

Overall Sentiment




### Agenda Item: eComments for A G E N D A

Overall Sentiment




**Nicholas Drance**
Location:
Submitted At: 12:33pm 05-25-21

Aloha Chair, Committee Members and Council,

I embrace the inclusion of the words of our island brothers and sisters into the Countywide Plan. Every recommended revision contained in County Communication 21-190 from our three islands supports what I'm talking about today. We are talking about the will of the people. This is what these words mean to me.

Mitigating Climate change to me means reducing our giant carbon footprint which primarily comes from the endless stream of jets landing here. Almost everything we consume is transported here. The more people that

move here, the worse it gets. Now there are 460 acres in Central Maui for sale, enough to build 1900 homes..for who? It's not for residents. That's more barges loaded with building materials. More jets flying in. The amount of development in the works and planned currently will consume vast quantities of energy. How do we plan to generate that?

Working toward resilience to me means adapting to changes on the horizon. Just about everything we build here contributes to the difficulty in adapting to those challenges. It makes it harder. Once we build something, we can't unbuild it. Maui isn't Miami Beach. It's a tiny, remote island in the middle of the Pacific. Maui probably should be a conservation area. We already know that we can't even sustain ourselves and now we want to add more people and more buildings that bring ever greater amounts of consumption? It just doesn't make sense. We're going backward. Why? For what and for whom? We know that residents want to maintain a rural, small-town identity. That's already in the Countywide Plan which we are supposed to be following. Why are we fighting our own self-interests?

All this building is short-term gain. It's a long-term liability. It does nothing for the residents and certainly does nothing for the health of Maui nui. That's obvious. It creates climate change and makes it harder for us to adapt to it.

A very wise person said:

"Instead of looking at the past, I put myself ahead twenty years and try to look at what I need to do now in order to get there then."

This resolution attempts to achieve that.

We are Maui. We are unique. We have a responsibility to this place. Never again, in the history of mankind, will there ever be a place like this. You have the power to create a legacy that could last a very long time. Perhaps, forever. At this very moment, we are at a turning point that's easy to see if we put ourselves ahead 20 years and more. I think the time will come when we regret what we've allowed to be done to this island, on our watch.

Please pass this proposed Bill and put residents and stewardship of this most special place ahead of short-term profit for others, mostly people that don't live here. Let's work toward following the goals of the Countywide Plan with these amendments. That's what we're already supposed to do.

Thank you for being the hardest working Council we've ever had. I'm so very grateful for all that you have accomplished. You amaze me. Keep going. You are trailblazers. Here's another opportunity to build on that.

I should mention, for those of us at a certain age, you might appreciate the origin of that quote I mentioned. Dianna Ross is the author.

Mahalo nui, team!

Nick Drance
May 24, 2021

**Shelby Serra**
Location:
Submitted At: 11:17am 05-25-21

Comment to the Climate Action, Resilience, and Environment Committee
May 25th, 2021
1:30 pm
RE: Recognizing climate change and resilience in the countywide policy plan

Aloha Chair King, Vice Chair Sinenci, and members of the Committee,

On behalf of Pacific Whale Foundation (PWF) and its 20,000 supporting members, I would like to support the passage of the proposed bill attached to Resolution 20-170, to add 'mitigate climate change and work toward

resilience' as a goal of the countywide policy plan, with additions.

Climate change is one of the biggest threats facing the health of our planet, both on land and in the sea. The Hawai'ian Islands are particularly vulnerable to this threat; increases in sea surface temperature will lead to more extreme hurricane seasons, worsening ocean acidification will weaken or kill entire coral reef habitats, in turn reducing shoreline protection for the islands, and sea level rise and erosion will threaten coastal communities across the state, costing millions in damage and relocation.

We support the proposed countywide policy objectives to lower carbon emissions, reduce impacts of sea-level rise, and increase the use of renewables to promote energy self-sufficiency. However, we would like to highlight the great and continuing need to fully understand climate change's impact on ocean ecosystems, and the life within them.

Under the first objective to lower carbon emissions, we commend the inclusion of tree planting and watershed improvements as implementing actions and would like for marine ecosystems to be a considered inclusion as well. Climate change impacts touch every corner of the planet, and as the ocean covers over 70% of this fragile planet, and surrounds this State on all sides, a better understanding is vital for mitigation and increased resilience.

PWF believes that to tackle a problem, and to mitigate its impacts, we must first understand this problem wholly through dedicated scientific research.

We work to understand and mitigate the major threats facing whales and dolphins today and have identified climate change as one of those growing and evolving threats. As more research is conducted, the vulnerability of cetaceans to climate change, particularly the migratory humpback whale, are becoming better illuminated. The rapid warming of the planet is leading to a loss of habitat and creating greater competition for a diminishing amount of prey species. Although most of these impacts will be felt heaviest in the polar regions of the planet, impacts will also be felt here in Hawai'i, a vital breeding and calving ground for the North Pacific humpback whale.

To fully understand these impacts, we urge the Council to include research on climate impacts to ocean ecosystems in implementing actions for the objectives laid out in the Countywide plan, to increase resiliency to these forces. We look forward to working with the County to support any and all actions regarding the health of the ocean and increasing our resilience to climate change.

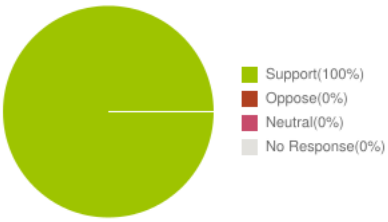
Thank you for the opportunity to submit comment today.

Shelby Serra
Conservation Advocate
Pacific Whale Foundation

**Bertha Verkerke**
Location:
Submitted At: 9:57am 05-25-21

I believe..We the people who have lived, breathed, Malama the 'Aina, and Aloha Maui should stop/pause the visitor accommodation development and related increase in tourism. And..You, in County Council should refocus on the supporting the people who live on Maui and are trying to survive. Let's build on sustainable agriculture and lower carbon emissions. Malama Maui. Mahalo

Overall Sentiment




**Guest User**
Location:
Submitted At: 6:11pm 05-24-21

From: Mike Moran <mmmmahalo2000@aol.com>
Sent: Monday, May 24, 2021 12:10 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Cc: ktkmaui@me.com
Subject: Continued support for both Care 47 and 50

Aloha Chair King and CARE committee members. Mike Moran for the Kihei Community Association in support of both items on the agenda for 5/25/21

We just want to restate for the record that our all volunteer unfunded. non-profit. community membership organization continues to stand in support of both items on the agenda for 5/25/21.

All indications are that South Maui district is already at pre pandemic levels this month. In spite of so much talk about improvements and modifications in this matter throughout 2020, we see it was nothing but talk.

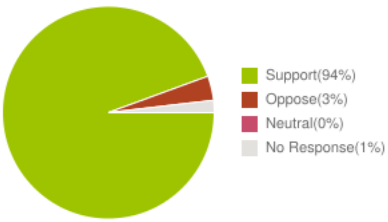
Please continue to be the entity that goes beyond talk to action and move ahead on these two bills before the situation not only does not improve but worsens for our community.

Mahalo

Mike Moran

**Agenda Item: eComments for CARE-50 CC 21-232 MORATORIUM ON VISITOR ACCOMMODATIONS DEVELOPMENT (CARE-50)**

Overall Sentiment




**CARE Committee**
Location:

Submitted At: 10:36am 12-01-21

Testimonies Received from CARE Committee

**Lynn Rasmussen**
Location:
Submitted At: 7:24am 05-26-21

Aloha,
I fully support an immediate moratorium on visitor accommodations development. Mahalo to Committee Chair Kelly King and the CARE committee for taking this important action!
Lynn Rasmussen

**Guest User**
Location:
Submitted At: 5:22am 05-26-21

From: Lucrezia Oddie <lucreziacreation@gmail.com>
Sent: Tuesday, May 25, 2021 12:56 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: visitor accommodation

Aloha.

Please support a moratorium on building permits for visitor accommodation.

Sincerely,
Lucrezia Oddie

**Guest User**
Location:
Submitted At: 7:23am 05-25-21

From: Kristin Stahl <kristin.stahl.johnson@gmail.com>
Sent: Monday, May 24, 2021 8:12 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Supporting the Visitor Accommodations Moratorium Bill

Dear CARE Committee Members,

I urge you to vote for the Visitor Accommodations Moratorium Bill and strongly advise the entire Council to pass it into law.

As a pre-statehood kama`aina, it grieves me so to see what has happened to our home. We may not be able to turn back the clock, but we can and must take the reigns and steer our islands to a better future than the one the visitor industry and wealthy real estate magnates offer us. Those who are not from Hawai`i consider us an international playground or, if you are wealthy enough, a wonderful place for a second (or third) home, driving prices so high that the local people, and the rich culture we represent, are lost in the economic treadmill or driven away, unable to work for a living wage or afford a roof over our heads. And how many long-time kama`ainas get to enjoy the leisure of the beaches from Kihei to Makena or West Maui in the same way we did 40 years ago? It's impossible with all those hotel rooms peering down at you.

It is time Maui, and the rest of the state, for that matter, cast off the yoke of "plantation mentality" and recognize the diversity of opportunities we have to build a strong, local economy independent of the tourist "industry." We should be investing our resources in real opportunities for local people, not being overwhelmed by ever-larger crowds of people from all over the world and playing catch up with the problems the untethered growth and destruction tourism has wrought – destruction of our reefs and coastal waters, the air we breathe, limits to water resources, open spaces and beautiful beaches, crowded highways. The list goes on. And all of that without adequately compensating for these impacts or supporting our local needs for vital infrastructure and the health and safety concerns for our families and loved ones. The Aloha spirit doesn't mean we become "lesser than" the

people we are welcoming.

We need vision and focus on the world beyond tourism. Visitors will always come. Let us welcome them with more than Vanda orchid leis and a hotel bill. If travelers had to contend with limited access but high quality experience, they may learn to value our home as much as we do.

As we know, Covid-19 has not only tested out resiliency and exposed the deep divisions and vulnerabilities in our community, it has allowed us to draw a line in the sand and say “No More!” We now remember what it means to breath without the crowds of “stranger” energy impacting the very way we breathe. We can have a different vision of Maui’s future, a resilient economy not upended by major international crises, ready and responsive to climate change. For too long our addiction to tourism has undermined the long term health of the island and its people. Let’s channel all that construction and technology talent that opponents to this bill wave at us into projects that make us self-sufficient, and an exporter of value-added products. Hemp production and its myriad spin off technologies is just one of many opportunities we can grasp.

The mantras of “Jobs” and “Progress” for construction and hotel workers are full of well-worn broken promises. We need real, localized economy. We do not need more, cheap hotel rooms for the Visitor Industry which has already exceeded the ecological limits of our `aina. We need to spend time and resources in balancing our behaviors and creating a vibrant and sustainable Maui economy into the future.

Our keiki will honor us for our courage and vision in taking a new road defined by pono and lokahi.

Please establish a moratorium on new visitor accommodations for the entire County until we can rise above petty politics and lay out a unified plan of what Maui’s future really needs. Right now we need vision, courage and strength.

Mahalo nui loa,

Kristin Stahl-Johnson
Kula

**Guest User**
Location:
Submitted At: 6:36pm 05-24-21

From: MJ Duberstein <mjduberstein@gmail.com>
Sent: Monday, May 24, 2021 5:48 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Moratorium vote—YES PLEASE

Aloha again
Once again I ask you to support Councilmember King’s proposal for an immediate moratorium on hotel & resort construction.
Don’t let this vote come down to a battle between the folks on one hand worried about unlimited numbers of tourists putting severe new pressures upon our already limited infrastructure and natural resources, and, on the other, developers and building trade unions.
There already are a long list of other job for union workers and all of us recognize the immediate need for workforce and affordable housing—and especially conversion of old unused buildings into such housing.
A moratorium is just that—a limit that you control. Please vote for it.
Mahalo, malama pono, malama aina.
Ua Mau Ke Ea O Ka Aina I Ka Pono

**Guest User**
Location:
Submitted At: 6:35pm 05-24-21

From: Karin Frost <karin@kfendeavors.com>

Sent: Monday, May 24, 2021 2:08 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: In support of the Moratorium on New Visitor Accommodations

Aloha Mai Kakou,

I SUPPORT the proposed “MORATORIUM ON BUILDING PERMITS FOR VISITOR ACCOMMODATIONS (IT-54)”.

Please take my voice into consideration as you deliberate and decide on the future of our island.

Mahalo nui,

Karin Frost
Designer and Founder of Ergobaby
Founder of the Frost Family Foundation
www.frostfamilyfoundation.org
Partner in H_k_nui Maui
www.hokunui.com
Board Member of Happy Baby
www.happybaby.org

**Guest User**
Location:
Submitted At: 6:26pm 05-24-21

From: J Kahala Chrupalyk <kahala.alohaaina@gmail.com>
Sent: Monday, May 24, 2021 2:10 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Visitor Accommodations Moratorium

Aloha e K_mike Climate Action, Resilience, and Environment,

I am in favor of this moratorium for the reasons listed below:
1. Our Aquifers could use a rest from the construction industry
2. Our burials could use some rest from being dug up to accommodate tourism
3. Our hotels are not even operating at full capacity, so why make more?
4. People keep on fighting for affordable housing, when it sells mainly to those who are moving here, but not to the people.
5. Our natural resources are facing depletion - and our natural resources are exactly what makes Hawai_i the paradise that tourists want to see.

Lastly, tourism only makes up 21% of the state_s economy. Don_t let them fool you into believing that we will all die without tourism. We will all die if the barge stops coming, so let_s work on internalizing and diversifying our economy through increased exports from our agricultural industry. For example, rubber trees are not from here and need to be removed. Rubber products such as latex gloves could be manufactured from the trees. Each tree can give upto 15 years of strong rubber production. Albizia trees are great for production and are in the MISC invasive list. They could be harvested for plywood production as well as some other products.

There are plenty ways to boost our local economy without the burdens of tourism. So many tourists moved here during Covid, that 70% of our local real estate sold to out-of-state buyers during Covid. But our own tax-paying voters/citizens are having trouble keeping a home. What does that say? Let the Voice of the People with open eyes be heard. We live here. We see both the problems and solutions.

Mahalo Nui,
J Kahala Chrupalyk

_____
Executive Secretary
Aloha __ina Party

**Guest User**
Location:
Submitted At: 6:25pm 05-24-21

From: Lila Sherman <info@email.actionnetwork.org>
Sent: Friday, May 21, 2021 4:23 PM
To: Kelly King <Kelly.King@mauicounty.us>
Subject: Vote No on County Communication 21-232

Kelly King,
Councilmember,
As our economy begins to recover from the pandemic, we must look for new ways to make housing more affordable, build economic opportunity for the middle class, and enable much-needed investments in education and elder care.
County Communication 21-232, a bill placing a moratorium on creating havoc on Maui will help all of the above become reality-- without overcrowding Maui
I urge you to vote YES on County Communication 21-232 and honor Maui's residents, ocean, beaches, traffic, and most of all future.
Lila Sherman

**Guest User**
Location:
Submitted At: 6:23pm 05-24-21

From: Jo <somaybe124@gmail.com>
Sent: Sunday, May 23, 2021 9:24 AM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: No more short term rentals

The goal of our visitor industry is 'to have fewer people spending more money', using fewer resources, leaving a small footprint. We need to create an exclusive, select, elegant, world class destination. Building more, cheaper places to accommodate hoards of people with fewer dollars to spend is the wrong direction. We are at a tipping point of capacity. Correct this ratio now, before Maui becomes a theme park called 'Hawaii'. ‘Generica America'.
A smaller, luxury, first class industry will create worldwide demand. Thus creating more jobs with a better ratio of service employee per visitor.
We must achieve sustainable tourism. Construction is not a sustainable industry. Short sighted. Once the land is built out, crawling with people/traffic, our Hawaii will be gone.
Please Keep Maui Maui!

**Guest User**
Location:
Submitted At: 6:21pm 05-24-21

From: Balanced Books Maui <balancedbooksmaui@gmail.com>
Sent: Monday, May 24, 2021 1:46 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: In SUPPORT of the Moratorium on New Visitor Accommodations

Aloha,
I am a life-long resident of Maui. My family has lived on the island since 1883 and my daughter is the 6th generation.
2020 was an interesting year for us all. Though there were (and still are) many restrictions that are frustrating, it was also an opportunity for the island to rest and the people who live here to enjoy the peace of how it used to

be. There is no doubt tourism creates an economic boost to the residents, but since October 15, 2020 it has gotten WAY out of hand. The amount of tourists and new residents is appalling and disgusting to say the least. The energy of the island has shifted, and not in a positive way. The traffic is horrific. The disrespect and entitlement these people bring is ridiculous. Those of us who have called this island home for years have worked hard and struggled to do so. We are frustrated, angry and are being pushed out by ever increasing rent and cash buyers from the mainland. Enough.
The islands and the people who have called Hawaii home for GENERATIONS need to be respected and protected. I fully SUPPORT the Moratorium on New Visitor Accommodations and hope this will cover ALL OF MAUI COUNTY.
It's time to find new economic solutions and work on RESPONSIBLE tourism, not this "free for all" – as long as you have money. Let's educate our visitors and create interactive programs that RESTORE the reefs and forests. Get rid of detrimental sunscreens. Ban single-use plastics. If we can require every visitor to complete "health information" on a website, we can require all visitors to complete an "educational briefing" and pay to access certain areas of the island. We need to protect this beautiful place we call home, before it isn't so beautiful anymore.

Thank you,
Heather Wood

**Guest User**
Location:
Submitted At: 6:19pm 05-24-21

From: Stephen Hynson <stephenhynson@europa.com>
Sent: Saturday, May 22, 2021 10:04 AM
To: Kelly King <Kelly.King@mauicounty.us>
Subject: Moratorium

Ms. King - Bravo on your editorial. It is way past time to bring the visitor industry into compliance with the Maui County general plan, a policy document that is the collaborative expression of the wishes of Maui residents. (And thank you for helping to move the zipline ordinance forward)

Mahalo,

Stephen Hynson
Haiku

**Guest User**
Location:
Submitted At: 6:17pm 05-24-21

From: Roy Dunn <r.dunn3@icloud.com>
Sent: Saturday, May 22, 2021 10:17 AM
To: Kelly King <Kelly.King@mauicounty.us>
Subject: Tourism

Kelly

I just wanted to write you a note of support for your proposed moratorium on new visitor development. You're absolutely correct in that we discussed this opportunity during to pandemic slow down but now that we've moved past that it seems we're intent to go back to all our old bad business habits.
I write to you as a guy who's spent 35 years on Maui in the restaurant business so it's not as if I don't appreciate the need for tourism. It's just our "anything goes" approach has about destroyed our residential communities, beaches, roads and thus the quality of life of Maui residents.
Ironically Maui News ran the zip line story the same day as yours. Neighbors are complaining of the excess noise and traffic these types of businesses bring to an otherwise residential area. Vacation rentals are just as bad at destroying the peace and quiet of our neighborhoods for the financial benefit of one person while also denying long term rentals to our residents.
Our resorts have plenty of rooms and activities to support the island's tourism and we need to allow them the

business opportunity they invested in. Our Mayor briefly spoke of Maui focusing on the higher end traveler and I agree that's where Maui should be. The vacation rentals and time share are the two biggest contributors to our crowds while providing little revenue to anyone but their property developer. Unfortunately you're going to have major pushback on your ideas by our local realtors and property management companies because of their greed.

Thank you for standing up for the quality of life the residents of Maui really are looking for

Regards,

Roy Dunn

**Guest User**
Location:
Submitted At: 6:16pm 05-24-21

From: Frank Oliveto <info@email.actionnetwork.org>
Sent: Sunday, May 23, 2021 8:20 AM
To: Kelly King <Kelly.King@mauicounty.us>
Subject: Vote No on County Communication 21-232

Kelly King,
Councilmember,
As our economy begins to recover from the pandemic, we must look for new ways to make housing more affordable, build economic opportunity for the middle class, and enable much-needed investments in education and elder care.
County Communication 21-232, a bill placing a moratorium on visitor accommodation will only halt our economic growth and lead to fewer jobs and higher unemployment.
I urge you to vote NO on County Communication 21-232 and instead invest in policies that will create greater economic opportunities for people to stay and thrive here in Hawai‘i AND protect the quality of life that we all cherish.
Thank you
Frank Oliveto
Sunburnfrank@gmail.com
1215s.Kihei rd suite o
Kihei,Hawaii, Hawaii 96753

**Guest User**
Location:
Submitted At: 6:13pm 05-24-21

From: Patricia Cadiz <pbc5@mac.com>
Sent: Sunday, May 23, 2021 7:46 AM
To: Kelly King <Kelly.King@mauicounty.us>
Subject: Visitor Accommodations moratorium

Aloha Kelly,
I want to thank you for your editorial explaining the visitor accommodations moratorium which I support. I do think that it should be island wide though- not just west and south Maui - otherwise we will surely see more visitor accommodations built in North and East Maui - by example the proposed Kanaha Hotel near Costco.

I'd like to ask your opinion on another idea that is circulating. In Tahiti there is an environmental impact fee accessed on each arriving airline seat (or maybe every rental car seat?). This has two advantages. 1. If high enough it raises the cost of entry such that the income demographic of visitors would surely be higher. 2. It would create a sizable budget for environmental protections. My suggestion would include that residents would get a full tax credit for fees paid. That separates tax paying residents from those who pay their taxes in another state. Could we do this for our county - not have to be statewide?

Also, I am particularly bothered by the emergence of rentals of tents/camping gear and mobile camping vehicles. The supply of visitor camping vehicles exceeds the supply of legal camping sites. This is a problem on many

levels. Including displacement of camping opportunity for residents and environmental impacts as these mobile campers are encouraged to stay remote places that don't have facilities for their biological needs. What can be done to limit the proliferation of Airbnb type camper vehicles? One option might be to require an Environmental Assessment for anyone advertising camping vehicle rentals.

I would appreciate your support of a new vision of tourism and would like to hear your thoughts on my three suggestions herein.

1. Expand visitor accommodations moratorium to island-wide.
2. Environmental impact fee
3. Require an EA for any vehicle camping rental business.

With appreciation,
Patti Cadiz

**Guest User**
Location:
Submitted At: 6:10pm 05-24-21

From: Mike Moran <mmmmahalo2000@aol.com>
Sent: Monday, May 24, 2021 12:10 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Cc: ktkmaui@me.com
Subject: Continued support for both Care 47 and 50

Aloha Chair King and CARE committee members. Mike Moran for the Kihei Community Association in support of both items on the agenda for 5/25/21

We just want to restate for the record that our all volunteer unfunded. non-profit. community membership organization continues to stand in support of both items on the agenda for 5/25/21.

All indications are that South Maui district is already at pre pandemic levels this month. In spite of so much talk about improvements and modifications in this matter throughout 2020, we see it was nothing but talk.

Please continue to be the entity that goes beyond talk to action and move ahead on these two bills before the situation not only does not improve but worsens for our community.

Mahalo

Mike Moran

**Guest User**
Location:
Submitted At: 6:09pm 05-24-21

From: Sue <mauisue1@gmail.com>
Sent: Monday, May 24, 2021 11:05 AM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: MORATORIUM ON BUILDING PERMITS FOR VISITOR ACCOMMODATIONS (IT-54

Aloha,

The first line from Maui Tomorrow's website about this issue sums it up pretty well: "Tourism on Maui has passed the point where it is serving residents, and is now negatively affecting our quality of life."

The moratorium on building permits for visitor accommodations should include all of Maui County.

I STRONGLY support this moratorium. As a forty year resident of Maui I have seen our quality of life decline in direct correlation to the increasing visitor count. Our roads, our parks, our beaches, our campgrounds, all are

overcrowded and leave little room for local folks.  Without local people, there would be NO VISITOR industry. Seemingly, the corporations making big bucks off of tourism don't care very much about the quality of life for the people helping them to make all that money.

Act now - before we reach the point of no return.

Mahalo,
Susan R Armstrong
Makawao, Hawaii

**Guest User**
Location:
Submitted At:  6:07pm 05-24-21

From: Madolin Wells <wellsmadolin@gmail.com>
Sent: Monday, May 24, 2021 10:03 AM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Moratorium on new resort building

Aloha Care Committee and County Council Members,

Who would ever have imagined that a global pandemic would provide the opportunity for Maui to re-think and review its visitor policies and over-reliance on tourism. The destruction of our local ecosystems, faltering infrastructure, negative impact on residents, and lack of enough decent-paying jobs are all urgent factors that must be addressed. It isn't possible to do so without a pause in new resort building. What we have seen is the degradation of the tourist experience as well as harmful impact on locals. We need quality over quantity. Many other resort islands and communities have done just that, for example focusing on eco-tourism so that visitors can learn about the culture and ecosystems, and make a positive contribution to it during their stay. These are the kinds of visitors we could welcome.

We also need the opportunity to consider other income streams than the monopolistic hold tourism has here in Maui. No banking investor in their right mind would put all the eggs in one basket. Neither should Maui.

Mahalo for your consideration.

Respectfully yours,
Madolin Wells, Kihei

**Guest User**
Location:
Submitted At:  6:05pm 05-24-21

From: Susan Douglas <sd3@hawaii.rr.com>
Sent: Sunday, May 23, 2021 12:01 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: SUPPORT the Moratorium on New Visitor Accommodations

Aloha, When I moved here in 1983, the boy scouts did an experiment regarding the traffic on S. Kihei Rd.  They counted the cars that went by in one day and counted 11,000.  That poor potholed road probably handles way more today.  We need more focus on residents' and the island's needs, not more visitor accommodations.

Warmest Mahalo and Aloha!

Susan Douglas
Writer & Healthy Life Coach, by Donation
Temple of the Spirit (Our Body Is the Temple of our Spirit)
Kihei, Maui, HI 96753

**Guest User**
Location:
Submitted At: 6:04pm 05-24-21

From: Maha Conyers <info@mahanaweddingsmaui.com>
Sent: Saturday, May 22, 2021 6:02 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: support moratorium

Aloha,
Please support the moratorium on building permits for visitor accommodation. We need wise guidance to ensure that our island keeps its natural resources and prevents overcrowding of tourists the way we have unfortunately seen lately.
Thank you for your kokua,

Rev. H. Conyers
Mahana Weddings Maui

**Guest User**
Location:
Submitted At: 6:02pm 05-24-21

From: Teresa Ernest <teresajo@hawaii.rr.com>
Sent: Sunday, May 23, 2021 9:58 AM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Moratorium on Vacation Rentals

I am in complete support of the moratorium being proposed by Kelly King. A pause is exactly what we need right now to achieve a balance between tourism and the health of our beautiful Island.

Thank you,

Teresa Ernest

**Guest User**
Location:
Submitted At: 6:01pm 05-24-21

From: Randy Wagner <randy.wagner@gmail.com>
Sent: Sunday, May 23, 2021 9:26 AM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Support for the Moratorium

As a Kihei resident who understands the consequences of tourism without proper infrastructure I support the moratorium on future hotel development until the situation is reconciled.
Sincerely,
Randy Wagner

**Guest User**
Location:
Submitted At: 6:00pm 05-24-21

From: Nick Drance <nick@imagedesigncom.com>
Sent: Sunday, May 23, 2021 9:15 AM
To: CARE Committee <CARE.Committee@mauicounty.us>
Cc: daviddorn808@gmail.com; Louise Lambert <louiselambert1@gmail.com>; Bonnie Newman <bonnienewman10@gmail.com>; Fred Spanjaard <fred@globalmediaproductions.com>; Deborah Pozin <deboraheyem@gmail.com>; karenmac1999@hotmail.com; director.mauitomorrow@gmail.com
Subject: Moratorium proposal - final letter to CARE Committee

Aloha chair, committee members and council members.
>
> I'm writing one last request to encourage you to embrace the proposed Hotel Moratorium resolution. Actually, it's more like a plea.
>
> Please take a few moments to consider this perspective.
>
> During Council Member Kama's first election campaign, I was working very hard for her and we spoke easily, in a heartfelt manner. I asked what she thought about the massive amount of development that I've seen over the last 35 years and she said, " You know, I never really looked at it like that. I just lived here so long and the change has been so gradual, it's almost like I didn't notice it, that's just the way things were.... but I see what you mean."
>
> A lot of people feel that way. A lot of people see it and don't like it but feel like there's nothing anyone can do about it, the guys with the money are always going to get their way. I do have faith in people and I don't think money is everything. As they say, you can't take it with you. There are some things that are more important than money, like God, nature, the land in the water, all of creation in the natural world. It's beautiful. The asphalt we pave over the land, the shopping centers we build that become our temples to distract us, all the things that man creates that are not of the natural world; do those things serve us. On top of that, should we create more places for thousands more people to come and go through. Does that improve our lives and protect the land?
>
> Those things detract from our life experience and I think it's clear to everyone in broad terms, that those things are a destructive force. They are changing our climate. We are so deep into it, we can't take back what we've already built, we can hardly slow it down and yet we know that future generations will never be able to enjoy what we have now and in fact they'll probably considered it a luxury.
>
> Our island is the most remote populated place on the entire planet. Contrast that with so many places, within millions of square miles of land on the mainland, that have been transformed by the works and deeds of man. I think about what's happening on our little tiny 750 sq. mile rock in the middle of the ocean. It's the same thing. Two almost opposite types of places treated in the same way.
>
> If this most remote place is being transformed like so many other places on the mainland as if it was nothing more than that, how can that be? Is nothing sacred? Is everything for sale? Are we here to destroy what nature made over millions of years, so other people can get rich?

> Is it right to transform this place where the indigenous cultural values of aloha and Oneness with the land and the water is everything? At least it was before the arrival of the white man.. Now we have "development" and "progress". Are we not stewards of the land, responsible to honor its culture from the past and preserve it for the future. Isn't that what we are here for? What will it take for us to learn?
>
> Everyone serves a master of some sort. A boss, a spouse, a mortgage, some form of debt and for some, it's money. Biblically known as the "Golden Calf". For us, let us serve something natural, not man made. We know better.

> Maui is a gift. Let us express our gratitude by serving it well. Let that be our legacy instead of treating it like the mainland. Please. Its your choice.

In aloha,
Nick Drance

**Guest User**
Location:
Submitted At: 5:58pm 05-24-21

From: Sandra brissette <sandra_brissette@yahoo.com>
Sent: Sunday, May 23, 2021 8:39 AM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Hotel/Tourist moratorium testimony

Dear Members of city council and to whomever is involved . Please read my testimony.

I am a full time resident of Kihei
I am in favor of the moratorium for Hotel/vacation building.
Our community has been growing much too fast with the focus of just Tourism. We have roads that can't accommodate the vehicle's already here. There is already a shortage of cars for the tourist that they are using our moving trucks to get around while some of us are having to leave our home being sold without a means to do so. An inadequate bus system. In the a meeting of the planning commission they stated they didn't have enough buses running routes for the workers and tourist were boarding the small existence of them leaving the workers stranded with no means to get to work Sewer and drainage problems that need to be fixed before more buildings are built. A water supply shortage that depends on our climate that is forever changing. Can we fix these things before building more Hotels/tourist vacation homes. There are more tourist here than residents. There is a crisis of affordable homes to rent for us .The planning department is still planning a vision for Maui and if we don't pause all the planning we be a wasted time. Please pass this moratorium. We need to make a plan that will keep the community of residents safe, sustainable and economically sound.
Thank you for all your hard work and listening to all opinions and hopefully doing what's right for the future generations to come.

Sandy Brissette

**Guest User**
Location:
Submitted At: 5:57pm 05-24-21

From: Matt McDonald <mattmcdon@gmail.com>
Sent: Sunday, May 23, 2021 8:01 AM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Please support moratorium on building permits for visitor accommodations for all of Maui County

Hi CARE Committee,

It is so important to me that you support the visitor accommodations moratorium – and also include all of Maui County – without delay. I am a resident of Haiku, and over the last decade my family's quality of life on the island, due to a massive influx of visitors, has continued to decline. I'm sure you have to feel it too. In the perpetual traffic on the road to Hana, the overcrowding of our favorite beaches and landmarks, the hordes of tourists everywhere armed with a selfie stick and an entitlement that is disrespectful to our community and our culture. Our family has stopped going to entire parts of the island because of this problem, and it saddens us deeply. If tourism numbers continue to grow, the island will lose everything that makes it special... I fear it already has.

As residents, we've felt powerless to have a voice in the stampede of our island. While a moratorium on building won't necessarily reverse the problem, at least it can provide a pause while we continue to evaluate what modern tourism means in Hawai'i, and how it can benefit everyone in the community, not just a select few. I ask you to please support this moratorium – including all of Maui County – at your meeting on Tuesday.

Thank you so much,
Matt

**Guest User**
Location:
Submitted At: 5:56pm 05-24-21

From: Cheryl Hendrickson <chermcmaui@aol.com>
Sent: Sunday, May 23, 2021 7:53 AM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Building permit moratorium

Aloha-

Please support a moratorium for all new visitor accommodations in all of Maui county.

Maui's master plan for a daily visitor count to be one third of our local resident population has been grossly abused and ignored. The trash, traffic and environmental degredation caused by too many tourists is not worth the added income. It affects many for the profit of the few.

We need to support our other industries to provide self reliance and preserve our fragile, rare environment.

Mahalo,
Cheryl Hendrickson

**Guest User**
Location:
Submitted At: 5:55pm 05-24-21

From: Carla Pew <tutucarla@gmail.com>
Sent: Sunday, May 23, 2021 7:45 AM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Visitor Accommodations Moratorium

I urge you to support the moratorium on building permits for visitor accommodations on Maui.

The time we have all had in the last year to experience what Maui could be like without the HUGE numbers of visitors has made it clear that we need to set limits on the number of tourists that our island can tolerate. And the numbers we have visiting now, causing traffic congestion and crowded beaches, is more than enough. We do not have the capacity to add more tourists to that number without significantly impacting our island, the surrounding ocean, and the people who call Maui home. So, without delay, please support the moratorium.

Carla Pew
Kihei, Maui

**Guest User**
Location:
Submitted At: 5:53pm 05-24-21

From: Bette Belanger <belangerblue@gmail.com>
Sent: Sunday, May 23, 2021 7:08 AM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Hotel moritorium

Council members,
I support a moratorium on more hotel and vacation rental condominium building on Maui. We are allowing this beautiful island to be destroyed by over tourism.
Bette Belanger
Kihei

**Guest User**
Location:
Submitted At: 5:52pm 05-24-21

From: Kimberly Kowalski <kmkowalsk@hotmail.com>
Sent: Sunday, May 23, 2021 5:55 AM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Support for Moratorium on New Visitor Accommodations

PLEASE institute the moratorium island wide and protect Maui and our families from overtourism! The island is already too crowded. Don't let greed destroy us.

Kim Kowalski MD

**Guest User**
Location:
Submitted At: 5:51pm 05-24-21

From: La'akea Kaufman <kea.kaufman@gmail.com>
Sent: Sunday, May 23, 2021 5:21 AM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Tourism Moratorium

Aloha K_kou,

I am writing to urge the CARE Committee to support the moratorium on tourism in all of Maui County. It is long past time to recognize the carrying capacity of our islands, to reckon with the wasteful and extractive nature that tourism has on the way of life here, and move from an economy of service to an economy of sustainable job development following indigenous concepts of community care.
We must cap tourism in this state. We cannot continue to support these extractive practices that keep Maui County's economy tied to large corporations, wealthy non-native hotel owners, and polluting airline companies.

Signed,
La'akea Kaufman

**Guest User**
Location:
Submitted At: 5:49pm 05-24-21

From: Sarah Tomastik <stomastik@gmail.com>
Sent: Saturday, May 22, 2021 9:45 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: moratorium-visitor building permits

Aloha mai k_kou,

Please support the moratorium on building permits for visitor accommodations for all of Maui County. This is so important for residents!

Mahalo nui,
Sarah Tomastik
Kihei

**Guest User**
Location:
Submitted At: 5:48pm 05-24-21

From: kstover@maui.net <kstover@maui.net>
Sent: Saturday, May 22, 2021 9:22 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Support Moratorium on New Visitor Accommodations

I support the Moratorium on New Visitor Accommodations, and the proviso that it include all of Maui County.

Thank you

Ken Stover
Resident of Maui Meadows

**Guest User**
Location:
Submitted At: 5:43pm 05-24-21

From: Leina Wender <waiokila@gmail.com>

Sent: Saturday, May 22, 2021 8:38 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: please pass moratorium on visitor accommodations; extend to entire county

Aloha k_kou,

We are already exceeding our carrying capacity for tourists as well as our General Plan mandates. Please pass the moratorium on building permits for visitor accommodations, and expand it to include the entire county.

Mahalo.

Elaine Wender

**Guest User**
Location:
Submitted At: 5:42pm 05-24-21

From: Marty Martins <mauimanokane@gmail.com>
Sent: Saturday, May 22, 2021 8:28 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: New Visitor Accomodations Moratorium

Aloha e Members of the Climate Action, Resilience, & Environment Committee,

I am in favor of this moratorium. We don_t need more hotels right now. Tourism has not returned to pre-pandemic levels and experts say it will be two or more years until it does.

Let the hotels try to fill the rooms they have now and give Maui Nei a breather while we consider sensible alternatives to managing non-resident tourism.

Mahalo,
Marty Martins
K_hei

**Guest User**
Location:
Submitted At: 5:41pm 05-24-21

From: Paula Phillips <paulalee@hawaii.rr.com>
Sent: Saturday, May 22, 2021 7:22 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Support of the Visitor Accommodations Moratorium

Aloha Care Committee,

Please SUPPORT the proposed “MORATORIUM ON BUILDING PERMITS FOR VISITOR ACCOMMODATIONS (IT-54)”.

Also, please modified the bill to include all of Maui County, and not just South and West Maui. Otherwise development of visitor accommodations will just shift to the rest of the county.

The County cannot even handle the amount of tourists that are coming now. Tourism on Maui has passed the point where it is serving residents, and is now negatively affecting our local quality of life. Housing is out of reach for our children. Infrastructure is not in place to deal with the amount of people already on the island. Upcountry is constantly having to conserve water when Kihei and Lahaina do not. Maui County needs to preserve the resources that are here for our future generations.

My husband and I went up to the west side to see the Hokule’a and also to take a swim on Ka’anapali Beach.

After driving around for 30 minutes looking for available beach parking, there was none. What we did notice was that all the beach parking was filled with rental cars. Now this was on a Tuesday morning, May 18th, not even a weekend. We then went to North Beach and got the last parking spot but of course the beach isn't really a swimming beach so we were disappointed. It was also extremely crowded. This is just another example of the islands' infrastructure being insufficient for its' current needs.

The first step in solving any problem is to stop making it worse. The proposed visitor accommodations moratorium will pause further development of new hotel, resort, timeshare, short-term rental homes, bed and breakfast homes, and transient vacation rental units. This moratorium will give us time to address the problem.

Again please SUPPORT of the proposed "MORATORIUM ON BUILDING PERMITS FOR VISITOR ACCOMMODATIONS (IT-54)" for the entire county of Maui.

Mahalo,

Paula Phillips
Haiku

**Guest User**
Location:
Submitted At: 5:39pm 05-24-21

From: ALAN COHEN <alvivcohen@msn.com>
Sent: Saturday, May 22, 2021 5:15 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Building Moratorium

Aloha, I support the Building Moratorium effort on Maui Nui. The islands healed during the pandemic from over tourism. I believe we need to have a sustainable expansion plan that will allow for quality of life for residents. A balance between economic needs and lifestyle is a must.

Mahalo, Al Cohen

**Guest User**
Location:
Submitted At: 5:38pm 05-24-21

From: Mele Stokesberry <melestokesberry@gmail.com>
Sent: Saturday, May 22, 2021 4:40 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Support tourism moratorium for all of Maui Co.

Dear members of the Climate Action, Resilience, and Environment (CARE) Committee,
Please support a moratorium on more tourism infrastructure in all parts of Maui County.
Maui County's ability to keep absorbing more and more tourism infrastructure is over-stressed, and tourism accomodations, by which I mean to include not only hotels and hotel properties but streets, highways, and all that is supposed to control and regulate traffic, is 'way overbuilt already.
We have a large amount of empty commercial spaces, yet developers looks to create more shopping centers near more hotels. There has to be a pause to reflect, to breathe, to reconsider all possible ways to keep Maui Maui and still create a beautiful experience for some number of visitors that we can handle and keep Maui livable.

Mele Stokesberry

**Guest User**
Location:
Submitted At: 5:36pm 05-24-21

From: Andy Chenoweth <skitracksurf@gmail.com>
Sent: Saturday, May 22, 2021 4:10 PM
To: CARE Committee <CARE.Committee@mauicounty.us>

Subject: building moratorium

Please, please, for the sake of the health and livability of our islands, impose a building moratorium on visitor accommodations throughout Maui County. There is no time to waste — please do it now, without further delay.

Mahalo,

Andy Chenoweth

**Guest User**
Location:
Submitted At: 5:29pm 05-24-21

From: Steven Josefsberg <skjsurf@gmail.com>
Sent: Saturday, May 22, 2021 4:09 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Visitor accommodations moratorium

As a frequent visitor to Maui for the past twenty years, I have witnessed the unending development and find that it has reached a point where there needs to be a moratorium on any further visitor accommodation construction. Maui has already lost some of its charm. The beauty that brought tourists here in the first place is gone. Traffic has become absurd. There is no infrastructure to support any more tourists.
I implore you to pass the Visitor Accommodations Moratorium.
Mahalo,
Steven K Josefsberg
Kaanapali

**Jeffrey Masatsugu**
Location:
Submitted At: 11:24am 05-24-21

Please see attachment.

**Guest User**
Location:
Submitted At: 9:50am 05-24-21

From: susan@chefteton.com <susan@chefteton.com>
Sent: Sunday, May 23, 2021 1:13 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: RE MORATORIUM ON BUILDING

Aloha Committee,

Please, please, please be smart and support the proposed "Moratorium on building Permits for Visitor Accommodations (IT-54).

Seriously, I can't even believe that you would do otherwise. What could possibly be your purpose in building more, other than money. Building more is counter productive to our QUALITY OF LIFE AND future, and provides only a short term gain....if any at all.

And, the costs are far beyond the benefits. There will be costs you have not considered yet within the infrastructure needed to withstand the additional crowds. THE LACK OF LONG TERM VISION IS A TREND THE COUNCIL HAS ADOPTED THAT IS OBVIOUS IF YOU LIVE HERE AND JUST LOOK AROUND. OUR FUTURE IS IN YOUR HANDS.

Humans are extremely resourceful and will find ways to boost the economy, and create an infrastructure that is healthier and more vibrant for all. The model you are currently operating from is obsolete.

In addition, the quality of tourism is fading as it is too crowded already. People are lined up around the corner of

the local restaurants, the beaches and walkways are packed, the trash and pollution is horrific, and the traffic is horrendous. This does not make for a meaningful and fun vacation for anyone, nor an excellent standard of living for the residents.

Please, Maui County Council, PASS AN ORDINANCE THAT WILL PREVENT THIS FROM HAPPENING.

We need to pause the continued expansion of our already overbuilt visitor industry.

Thank you for your service.

My best, susan campbell

Susan "Teton" Campbell

**Guest User**
Location:
Submitted At: 9:49am 05-24-21

From: Amy Fonarow <afonarow@yahoo.com>
Sent: Saturday, May 22, 2021 8:24 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: I Support the Moratorium on Visitor Accommodations

Aloha, Climate Action, Resilience, and Environment Committee:

I support the moratorium on Visitor accommodation development, and I respectfully request that you do the same and extends its provisions to all of Maui County.

There are ways to make tourism simultaneously sustainable and profitable. In order to have the time to explore and discuss those ways, we must stop and examine our current accommodations and the numbers of visitors we have already made room for, and compare those numbers with the environmental, cultural, and societal carrying capacity of Maui County before considering adding more room for more visitors.

Please use this moment in time to stop and think about the future without considering money. What will be important to the Islands twenty years from now? One hundred?

Thank you for your thoughtful consideration.

Mahalo nui and m_lama pono,

Amy Fonarow (former Maui resident)

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Amy Fonarow
Science Communicator
Writing • Outreach • Social Media

**Guest User**
Location:
Submitted At: 9:47am 05-24-21

From: Milena Kari <milenakari@yahoo.com>
Sent: Sunday, May 23, 2021 11:48 AM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Support for moratorium on building permits island wide

Aloha Maui Care Committee,
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

I am writing to express my full support for the moratorium on building permits for visitor accommodations, island-wide and preferably for 5 years or more in order to give us adequate time to find alternative sustainable solutions.

The arguments made by tourist industry lobbyists in opposition of the moratorium do not make any sense. They are trying to masquerade their opposition by a concern for the citizens of Maui County, citing COVID unemployment data. The whole point is that the jobs loss was due to the hotels temporarily losing their business. How would having more hotels prevent this problem? Quite the opposite, the job loss opened our eyes to the fact how dependent we are on the tourist industry. Also, as shown in Maui News today, this summer tourism to Maui county is projected to be back at its pre-COVID level which was already unsustainable. Pre-covid Hawaii had no issues with unemployment, in fact had one of the lowest unemployment rates. Businesses were struggling to find workers, why? Because the tourist industry provides low paying jobs allowing only for bare survival. People working these jobs cannot pay their rents, let alone afford to buy residence.

It is obvious that all the push for building more visitor accommodations is not for the interest of the island residents, but rather for the profits or large off-island companies, CEOs and other entities.

Therefore it is urgent that we put a stop on this insanity and look into ways to reduce number of visitors to the island which has far outgrown any sustainable limits. Instead we should try to expand other industries such as agriculture, technology (the Tech Park in Kihei is dead), clean energy are just a few that come to mind.

With the dangers of climate change we also have an obligation, each one of us, to do whatever we can to stop and reverse this trend. The tourist industry has been shown to be carbon heavy and not climate-friendly as shown with facts in some testimonies. This stop action is really urgent!

Mahalo for your initiative and for reading this letter!

Milena Kari,
Kahului, HI

**Guest User**
Location:
Submitted At: 9:46am 05-24-21

From: Ane Takaha <bhaktirocks@earthlink.net>
Sent: Sunday, May 23, 2021 12:09 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: tourists

Aloha

I support the moratorium on new hotel building and any other measure you can create to limit or control the number of tourists on Maui. It feels more like Oahu (without the infrastructure to support it) everyday.

Thank you
Ane Takaha
Maui Meadows

**Guest User**
Location:
Submitted At: 9:45am 05-24-21

From: Patricia Hoskin <pattylou9@gmail.com>
Sent: Sunday, May 23, 2021 12:21 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Visitor accommodations

Yes, I want to support the moratorium on visitor accommodations. It is so bad now the cars hardly move on South Kihei Road and then the government is going to stop traffic on Piilani to do a foolish traffic circle. We can not just go to any beach as the hotels have taken up the beaches with their chairs. It makes me ill.

Patricia Hoskin

**Guest User**
Location:
Submitted At: 9:43am 05-24-21

From: Thomas Mellin <tmellin@yahoo.com>
Sent: Sunday, May 23, 2021 12:35 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Moratorium on building permits for visitor accommodations

Aloha k_kou,
I don't understand why there is even a discussion on this point. The law is clear.

Maui County Code 2.80B.030.B. All agencies shall comply with the general plan, and administrative actions by agencies shall conform to the general plan,…

MAUI ISLAND PLAN
Chapter 4: Economic Development
Page 4-14
Objective: 4.2.3 Maximize residents' benefits from the visitor industry.
Policies: 4.2.3a Promote a desirable island population by striving to not exceed an island-wide visitor population of roughly 33 percent of the resident population.

What we had before the pandemic was not desirable. If it isn't already, it will soon be undesirable again. I do not believe a few short-term construction jobs are worth degrading the quality of life for all residents and risking killing the goose that lays the golden egg. This matter should be a no-brainer. Please support the moratorium.

Mahalo,
Tom Mellin

**Guest User**
Location:
Submitted At: 9:42am 05-24-21

From: Tanya Kari <tanyakari@kiheicharter.org>
Sent: Sunday, May 23, 2021 1:03 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Visitor Accomodations Moratorium

Hi, I am a high school student at Kihei Charter School. I wanted to let you know that I support the visitor accommodations moratorium, and I believe it should include all of Maui County.
Visitor arrivals have been breaking records lately. My mom works at the Kahului airport. She tells me that the airport is as crowded as it was before the pandemic began. Residents have to deal with packed beaches and roads. In 2019, Maui alone had over 3 million visitors and about half the number of residents. The number of visitors will only continue to increase as we build up land to accommodate them.
The visitor industry is already overbuilt. Hotels and timeshares disrupt the environment by taking up natural land space and hogging our water supply. Some of these areas hold cultural value to Native Hawaiians. The tourist industry also feeds into climate change and global warming. The average person on Maui has about six times the carbon footprint of the average American because they are involved in tourism - and the United States has the highest carbon footprint (per person) than any other nation.
While tourists are swarming into the airports every day, residents have to leave the island because they cannot afford to live here. Most of the jobs created by hotels pay too low for workers to pay their daily expenses. I think Maui should focus on creating more sustainable and high-paying jobs for our community instead of abusing the environment to serve the wants of rich corporations.
I believe that the visitor industry has passed the point where it served residents, and I am concerned about the future of this island. Maui is a beautiful place, and I want to preserve it.
"When the last tree is cut down, the last fish eaten and the last stream poisoned, you will realize that you cannot

eat money"

**Guest User**
Location:
Submitted At: 9:40am 05-24-21

From: Ane Takaha <bhaktirocks@earthlink.net>
Sent: Sunday, May 23, 2021 2:03 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: tourism

Aloha
I am supporting any bill or proposal or person who is looking into how to limit tourism, rental cars, and new hotel builds.
The paper today says we will be back to past numbers by this summer. Feels like we all ready are. No place to park. Traffic. Swimming (when you can get beach parking) is like navigating a busy freeway.
I did not move here many years ago for this.

Thank you
Ane Takaha
Maui Meadows.
(PS I own my house and pay taxes. I feel like I should be able to park at the beach)

**Guest User**
Location:
Submitted At: 9:39am 05-24-21

From: Jeffrey Jeffrey <mygearth@yahoo.com>
Sent: Sunday, May 23, 2021 3:10 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Moratorium

We only have one Maui

Smart growth or no growth!

Let’s not become a Oahu!!!M

Be smart

Jeffrey Alan

**Guest User**
Location:
Submitted At: 9:37am 05-24-21

From: Charle Brissette <cbrissette@sbcglobal.net>
Sent: Sunday, May 23, 2021 3:18 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: MORATORIUM ON BUILDING PERMITS FOR VISITOR ACCOMMODATIONS (IT-54

Maui County Council,
I am writing to you in support of the MORATORIUM ON BUILDING PERMITS FOR VISITOR ACCOMMODATIONS (IT-54) for West and South Maui. I am a full time resident of Kihei and have been for many years. Here is a list of some of the many reasons why I believe this bill must pass.

1. When I see all of the building that is sprouting up in Kihei, Wailea, Makena and other places in South and West Maui I ask myself, “who benefits from all of this?”. Is it the residents of those areas; NO! More building means more visitors and tourists, more traffic, crowded beaches, long lines at restaurants, a burden on our food

and water supplies and more of our tax dollars being spent on things that do not benefit the tax payers of Maui County.

2. On one hand we have been told for many years that Kihei and the surrounding cities are in a drought. On the other we see buildings going up and many more in the planning and permit stages? If we are in a drought, how can we possibly have enough water to support these additional buildings? This does not make any sense.

3. As the bill points out, the visitor-resident ration far exceeds the Maui Island Plan. The Maui Island Plan was put into place to make sure that Maui stays a wonderful island for its residents who are here each and every day and that it does not become overrun by tourists who come and go. Isn't it time that we get back to what that Plan is all about?

4. The job of our elected officials is to make sure that WE THE TAXPAYERS voice is heard above and beyond those with money who want to turn South and West Maui into their "tourist playground". Do those who want to continue to overbuild and overdevelop Maui have a personal stake in our island? NO! Will they deal with the consequences of their actions that WE THE RESIDENTS will have to deal with on a daily basis? NO!

5. As I see the high school being built I cannot help but think that traffic jams in South Maui will soon be a daily grind. The third North/South road that was proposed many years ago has not been completed nor addressed. This means the Piilani Hwy and South Kihei Rd will be overflowing with traffic once the high school is ready for classes. These traffic jams will exist with the South Maui population as it is today! With the additional building that is planned and in some cases already in progress, this problem will surely become much worse. Does this benefit WE THE TAXPAYERS and WE THE RESIDENTS? NO!

6. Lastly, we have had issues in the past with the sewer systems and with the electric grid. The additional building can only increase the burden on those systems that are already heavily taxed. Do more sewers that can potentially cause issues with the ocean benefit the residents? NO! Do additional solar grids or electric substations benefit the residents? NO!
I strongly recommend that the Council pass the bill and create a moratorium on building and permits until South and West Maui can solve the issues that currently exist. Let's build a third North/South road through Kihei to alleviate the traffic jams, address the water supply issue, address the sewer and electric grid issues and stick to the Maui Island Plan when it comes to the visitor-tourist ratio. Then and only then should we even consider additional planning/permitting and building on Maui.

Also please modify the proposed bill to include all of Maui County and not just South and West Maui and pass an ordinance to stop the 170 room hotel from being built in Kihei that has gone to the Maui Planning Commission.

regards,
Charlie Brissette

**Guest User**
Location:
Submitted At: 9:36am 05-24-21

From: peahijen@hawaii.rr.com <peahijen@hawaii.rr.com>
Sent: Sunday, May 23, 2021 4:48 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Moratorium on New Visitor Accommodations

Aloha,

I have only lived on Maui for a little over 30 years but in that time I've seen the island change dramatically. We are overrun with tourists on any given day, fighting for a position in the traffic line up and treating the island like it was a trip to Disneyland. We need to limit the number of people and cars so we don't lose what's left of the limited natural resources of our island home.

From the moment I arrived, the newspapers reported that the Iao Aquifer was nearing dangerously low levels. But the development of the island has not stopped over the decades. During times of drought, residents are

always told to conserve water, often with threats of losing their water meter, but hotel guests are never asked to do the same. How can this be sustained? Where will the water come from when the aquifer runs out?

With every new big box store, we've lost a smaller, family run business. We used to have everything we needed. Now it's worrisome when the barges don't bring more, more, more of everything. Certainly there are more people living on the island but everything returned to calm, manageable levels when the flights were stopped during the Covid shut down. Of course we wouldn't be able to live totally without tourism but it reminded us of how easy it used to be to drive from place to place without spending half the trip waiting in traffic.

There are better ways to manage tourism. We have all the hotels we need. We cannot handle more cars on the road or more people on the reefs or on bicycles coming down the mountain. And if more rooms are needed, allow VRBOs so that residents, rather than corporations, can participate in this money-making opportunity. Maui used to be a community but mainland companies and opportunists have turned it into nothing more than a commodity. Please put a moratorium on new visitor accommodations so that we can catch our breath and deal with the already overwhelming volume of tourists and cars.

Sincerely,
Jennifer Shannon

**Guest User**
Location:
Submitted At: 9:34am 05-24-21

From: Keri McIntosh <kmcintosh@thecastlegrp.com>
Sent: Sunday, May 23, 2021 8:40 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Testimony for moratorium for hotel/vacation buildings

To the Members of City Council and to whomever is involved. Please read my testimony.

I am a full time resident of Kihei. I am in favor of the moratorium for hotel/vacation buildings.

Our community has been growing way too fast with the focus of just tourism. The traffic is getting worse and worse. We have roads that can't accommodate the vehicles already here and we have roads that are in need of repair including the street I live on! Please let's focus on the local community first. There are more tourists than residents here. There is a crisis of affordable homes for locals to rent. We have an inadequate bus system. There are issues of water, sewer and the environment to think about. Adding more hotels and vacation units is simply not sustainable. Overcrowding the already congested area with more hotels and tourist units creates a less enjoyable experience for the tourists who do visit. We cannot afford to be shortsighted when it comes to planning for the future. Please pass this moratorium. We need to make a plan that will keep the community of residents safe, sustainable and economically sound. Thank you for all your hard work and listening to all opinions and hopefully doing what's right for generations to come.

Kind regards,
Keri McIntosh
Resident of Mahie Place

**Guest User**
Location:
Submitted At: 9:33am 05-24-21

From: Steve Forman <stevenmforman@yahoo.com>
Sent: Sunday, May 23, 2021 9:38 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Vistor Accommodation Moratorium

The amount of tourists on Maui has gotten to be too much. The whole industry needs to be addressed. For now a good step would be to put a moratorium on building any more visitor accommodations. This should stand for the whole island.

Thank you
Steven Forman

**Guest User**
Location:
Submitted At: 9:30am 05-24-21

From: Mary Groode <dechenmaui@hawaii.rr.com>
Sent: Sunday, May 23, 2021 10:36 PM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Support the Moratorium on building permits for new visitor accommodations.

Aloha,
How much is enough? How much is TOO much?

This summer we are going to have as many tourists as we had before the pandemic.

If we keep building more and more accommodations for tourists, they will keep coming. And, our life style and the things we love about Maui will be gone.
Is it worth it to want more and more people on this one island?

I strongly support the moratorium on new building permits for visitor accommodations for two years. Let's see how we can have a happy medium. Enough tourists to support the economy.
Enough space for residents to find a place to park at the beach on the weekend.

Limit the number of cars for rent to avoid gridlock traffic jams.

This moratorium should include all of Maui County.

Our future is in your hands.
Act wisely, please. Live Aloha.

Sincerely,

Mary Groode

**Guest User**
Location:
Submitted At: 9:24am 05-24-21

From: Bobbie Best <bestb002@hawaii.rr.com>
Sent: Monday, May 24, 2021 6:53 AM
To: CARE Committee <CARE.Committee@mauicounty.us>
Subject: Please support visitor building moratorium for all of Maui County

Mahalo

Aloha,
Bobbie Best

## CARE Committee

**From:** Kelly King
**Sent:** Thursday, May 20, 2021 12:47 PM
**To:** CARE Committee
**Subject:** FW: Please Amend CARE-50 (CC 21-232)

With Aloha,

**Office of Councilmember Kelly Takaya King**
South Maui Residency
Office: 808.270.7108
200 South High Street, 8th Fl
Wailuku HI 96793
**mauicounty.us**

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**From:** Patrick Alexander <makanaola@gmail.com>
**Sent:** Tuesday, May 18, 2021 11:28 PM
**To:** Kelly King <Kelly.King@mauicounty.us>
**Subject:** Please Amend CARE-50 (CC 21-232)

Aloha Council Member King,

I'm writing to request an addition to CARE-50 "Moratorium on Visitor Accommodations Development".
I respectfully request the following clause added:

**4000.5 (E) this chapter does not apply to descendants of the indigenous citizens of the Kingdom of Hawaii or any entity where at least 10% of the stock of such an entity is held by descendants of the indigenous citizens of the Kingdom of Hawaii.**

Growing up in the islands and being of native-Hawaiian descent, I strongly feel that an ordinance that restricts the entrepreneurial vision of this land's indigenous people can not be righteous. I humbly request that you take into consideration how this ordinance may affect the business objectives of a now minority indigenous people.

Residing in West Maui, and working in the hospitality industry, I believe that upcoming business plans by native-Hawaiians should not be hindered or delayed. Native-Hawaiians have been delayed long enough for an opportunity to find success within an industry that is dominated by mainland ownership. Being a graduate of Kamehameha Schools, I believe my education was an honor, a blessing, an opportunity for native-Hawaiian people to be given a chance at raising the economic status of our people. I will not argue that the visitor count is great, and I will not argue that environmental effects happen as a result; however, I feel that this ordinance should focus on the mainland corporations or investors who care little for our community and greatly for their shareholder return.

I live in a small 2 bedroom rental and have seen quite a few houses in West Maui sold during the past two years to mainland investors who think of our houses and condos as a business rather than a home. However, I feel that you and supporters of your bill would and should feel compassion for native-Hawaiian owners in local transient accommodation projects whether they be at its maturity or at its infancy.

Please amend the moratorium on visitor accommodations development to allow for the above clause which exempts projects that have native-Hawaiian equity owners.

Mahalo Nui Loa for your consideration,
Patrick Makanaola Alexander
Lahaina, HI

## CARE Committee

**From:** Michael Williams <michaelwilliams@pueofarm.com>
**Sent:** Thursday, May 20, 2021 1:39 PM
**To:** CARE Committee; IT Committee
**Cc:** Kelly King; Yukilei Sugimura
**Subject:** RE: Michael Williams written testimony in support of Visitor Accommodation morarorium
**Attachments:** Michael Williams' testimony re proposed Visitor Accommodation Moratorium 5-20-21.pdf

Sorry, I don't know how it got corrupted, but here is another try. Let me know if this one's ok.

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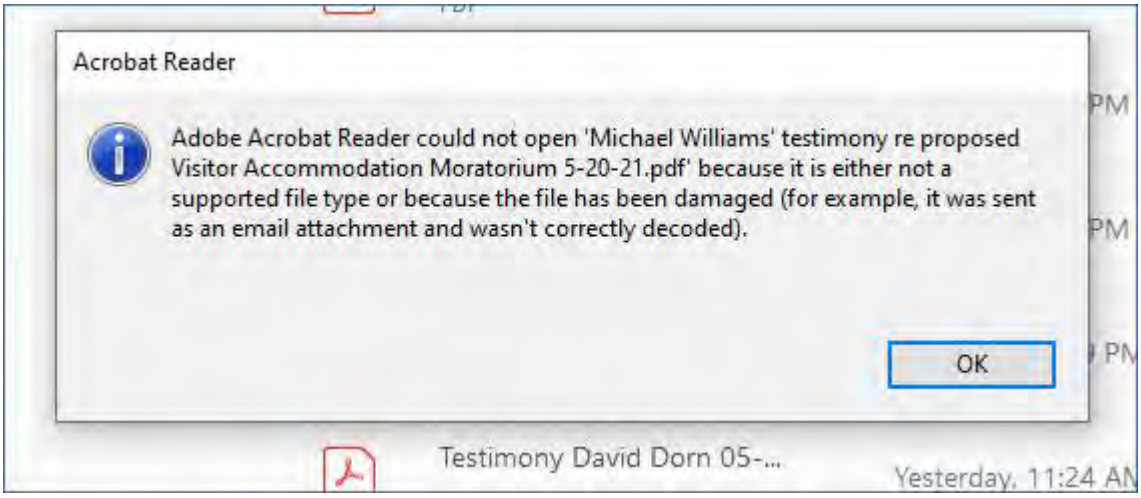
**From:** CARE Committee <CARE.Committee@mauicounty.us>
**Sent:** Thursday, May 20, 2021 1:27 PM
**To:** Michael Williams <michaelwilliams@pueofarm.com>
**Cc:** CARE Committee <CARE.Committee@mauicounty.us>
**Subject:** RE: Michael Williams written testimony in support of Visitor Accommodation morarorium

Mr. Williams,
Regarding your testimony you sent to the CARE Committee e-mail today (below), attempts to open the PDF attachment were unsuccessful:




Can you re-send in a different format?
Thank You,
CARE Committee Staff

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**From:** Michael Williams <michaelwilliams@pueofarm.com>
**Sent:** Thursday, May 20, 2021 12:44 PM
**To:** Kelly King <Kelly.King@mauicounty.us>; Yukilei Sugimura <Yukilei.Sugimura@mauicounty.us>; IT Committee <IT.Committee@mauicounty.us>; CARE Committee <CARE.Committee@mauicounty.us>
**Subject:** Michael Williams written testimony in support of Visitor Accommodation morarorium

Aloha kakou. As requested, I attach my written testimony.

Testimony in support of a moratorium on new visitor accommodations

Submitted to the CARE and IT Committees on 5/20/21 by Michael Williams, President, Maui Tomorrow Foundation

Aloha, Council Committee Chairs Sugimura and King. Maui Tomorrow supports a moratorium on new Visitor Accommodations, until the Maui Island Plan ratio of 1 visitor to 3 residents is restored.

1. In fact, we propose that the Council take action to reduce the number of Visitor Accommodations by allowing owners of condos that can currently operate legally and commercially as Short Term Rentals, but who do not intend to operate that way, to permanently opt their condo out of the STR class through a dedication scheme. Right now, if one of these condos is sold to a new buyer, that new user may immediately start operating a commercial Visitor Accommodation.

   Prior to the GY 2021 tax year, such owners could file a declaration that they did not intend to operate as an STR and opt out of the STR RPT class and into the NOO class, where tax rates have been considerably lower. But the opt out was temporary, for one year at a time, so that the condo could return to the VA inventory at any time in the future. In 2020 the Council passed an ordinance revoking this opt out right and required all such condos to be taxed as STRs no matter their actual use. As a result, over 1600 condos were shifted out of the NOO class into the STR class this year. Many of those owners became upset, hundreds filed appeals of their new classification, and many have written letters to the editor claiming the sudden tax increase was unfair.

   If the Council changed the law to allow those owners to return to the NOO class so long as they permanently dedicated their property to not be allowed to operate as an STR, it is likely that most, maybe more, of those 1600 owners would so elect. Right now, there are roughly 13,000 condos in the STR class. We think that this proposed change in the law will result in a permanent reduction in the number of commercial Visitor Accommodations.

2. Even the hotel trade associations admit that, until the temporary interruption of the pandemic starting in March 2020, Maui was suffering many negative impacts of over-tourism. Quoting from the written submission of the Hawaii Hotel Alliance to your committees, "We believe the conversation should focus on the causes of the negative impacts of tourism, "taking housing away from local families", "clogging our streets", and "destroying neighborhoods across Maui County." HHA decried what it called non-compliance with "environmental, health, and safety regulations."

   Taking a timeout on any further increase in Visitor Accommodations make sense until the pandemic's effects are in the rear view mirror, and we can develop a plan to return to the Maui Island Plan ration of 1 visitor to 3 residents. Such a timeout ill not cause any loss of the jobs generated in 2019 when the tourist industry was operating at full steam.

3. The public testimony has been overwhelmingly in support of such a timeout. Here is a summary of the written testimony re the Visitor Accommodation Moratorium provided to the IT Committee meeting 5-17-21:

   Note; the e-comment system characterizes each written comment as "Support" or "Oppose", or sometimes no characterization, but many of them labeled "Oppose" are actually in favor of the moratorium---I don't know if these mistakes occur when the comment is submitted by the testifier, or by Committee staff.

There were 126 comments on the agenda item, and 66 more on the whole agenda—all of the latter were about the moratorium.

I found 19 ecomments in support mislabeled as "Oppose". And 15 not labeled or called "neutral' which were all in support. .

There were only 5 ecomments genuinely in opposition: 2 from individuals, and 3 from trade groups: 1 from the Hawaii Hotel Alliance, 1 from the Hawaii Resort Development Assoc (Timeshares) and 1 from the Bricklayers Union.

**All told then, there were 192 ecomments to the IT Committee by 5/17/21—187 in support of the moratorium, and 5 opposed. 96% in support, 4% opposed.**

4. The hotel trade groups made arguments against the moratorium that were sadly just wrong, very wrong, on the facts. Jerry Giibson, a long-time leader in Hawaii's hotel and visitor industry, and currently president of the Hawaii Hotel Alliance, acknowledged that there are many negative effects of over-tourism—crowded roads, parks, beaches, use of scarce resources of water and sewers, but he said this is due to "thousands" of illegal, "criminal" operators of STRs throughout Maui's residential neighborhoods.

   He cited state statistics (not Maui-specific statistics) that while the number of hotel rooms in the "legitimate" visitor industry has not increased over the past decade, the number of visitors has greatly increased, all due to illegal STRs, which he said have "exploded'. He said enforcement of STR laws has not been effective.

   From his written testimony:

   "At the heart of this matter of a moratorium on building permits for visitor accommodations appears to be a desire to control the negative impacts of tourism across Maui County. At HHA and throughout the legitimate visitor industry, we share this concern. **We believe the conversation should focus on the causes of the negative impacts of tourism** and not the parts of the visitor industry that are crucial to our health, our culture, and our way of life here in the islands.

   "In 2009, Hawaii had 43,000 hotel rooms which ran at high occupancy with seven million visitors to our shores. In 2019, we had the same number of hotel rooms but more than 10.2 million visitors. In the last 20 years, our total hotel room count on Maui has actually fallen, while at the same time legal and **illegal short-term rentals have exploded**, effectively permitting a 6,000 room hotel and a 10,000 room illegal, unhosted B&Bs directly into the heart of some of our most coveted neighborhoods and fragile ecosystems across the county. The vast majority of these short-term rental operators do not live in Maui County. While we have made progress in putting tougher laws on the books to deter these criminals from operating illegal hotels in our neighborhoods, **our hardworking partners at the county have admitted that we still lack the resources and tools to rollout effective and critical enforcement.**

   "If it is the intent of the Council to align the interests of kama'aina and the visitor industry, then a moratorium on 'permits for visitor accommodations' (which reads as no more hotel rooms) is, in my belief, a misinformed approach. Rather than single out hotels, which contribute to our communities in countless ways, **we should focus more on enforcement against the literal thousands of illegal short-term rentals that are taking housing away from local families, clogging our streets, breaking the law, not contributing to our tax base, skirting environmental compliance, non-compliant with basic health and safety regulations, lacking in community contributions, and destroying neighborhoods across Maui County.**" (Emphasis added.)

Maui Hotel and Lodging Association echoed this argument in its written testimony in e comment:

> "It is our position that visitors should be encouraged to stay in Maui's purposely constructed and zoned resort areas. **If development is paused in these resort areas, the already extensive proliferation of illegal short-term rentals in our residential communities will likely increase to fill the void. This must not be allowed to continue**." (Emphasis added.

Both hotel trade groups are very, very wrong about illegal STRs in Maui County. I am Chair of the Cost of Government Commission. We are conducting an investigation into the policy options available to the Council and Mayor to better manage the negative impacts of over-tourism by managing Visitor Accommodations. As a first step, in 2019 we investigated the County's enforcement of STR laws. Members of our Temporary Investigation Group met with Michele McLean and Jordan Hart, and their STR enforcement team. We requested and received many documents from them concerning their enforcement effort and its success. We became convinced that problem is under control here, even if it is still bad on Oahu. I don't think there are more than 200 property owners here still operating illegally as STRs, as contrasted with the 13,500 legal STRs in the County. The Planning Department has a good surveillance system that seeks out internet ads for illegal STRs and responds to citizen complaints about potential violators. Armed with the $10,000/day fines the Council passed two years ago, the Administration has shut down almost all illegal STRs. Those property owners still flaunting the law are very likely to get caught, fined, and shut down.

**Our problem is not illegal STRs—it is the 13,500 legal ones. That is on top of the 2500 timeshares and 7250 hotel rooms.**

5. There are at least two ways to use the legislative tools at your disposal to manage those:

   A. Allow all the 13,000 condo owners now taxed as STRs to permanently opt out of the STR business through some dedication scheme. There are well over 1,000 such owners who prior to this year opted out of the STR class into the lower-rate NOO class temporarily, one year at a time. The Council removed that option for this tax year, and hundreds of howls have gone up from the owners affected—many of them have filed Property Tax appeals over that change. If the Council allowed them to opt out, but only if permanently, we would see the number of STRs drop substantially. Not just a cap on visitor accommodations, but a decrease.

   B. Use the property tax tool to incentivize the owners of those condos who continue to operate as commercial STRs to convert them to LTRs, or NOOs, or if not to pay their fair share to offset the negative impacts of the tourist they bring here: pay more for roads, parks, police, fires, emergency services, hospitals, water supply improvement, wastewater treatment improvements, affordable housing. Some will choose to rent long term instead and opt into the new LTR class next year.

Mahalo for the opportunity to testify on this important issue.

Michael Williams, 5-19-21

President, Maui Tomorrow Foundation.

## CARE Committee

**From:** travis liggett <travis@reefpowermaui.com>
**Sent:** Thursday, May 20, 2021 7:40 PM
**To:** CARE Committee; Yukilei Sugimura
**Subject:** REEF POWER LLC -- MORATORIUM TESTIMONY -- READ THIS BEFORE VOTE!!!
**Attachments:** Reef Power LLC - CARE Committee testimony v1.0.pdf; Travis Liggett Reef Power calling card.JPG; Reef Power LLC - CARE Committee testimony spreadsheet v5.0.xlsx

Aloha Councilmembers,

Attached please find my written testimony, requested by Councilmember Sugimura, quanitfying the component of municipal wastewater pollution attributable to the visitor industry, which I am submitting in support of the visitor accommodations building moratorium.

Please do not hesitate to call 808-757-5984 anytime to discuss, or if you have any questions about my analysis.

Mahalo for your attention!

Travis Liggett
President, Reef Power LLC
www.reefpowermaui.com
www.instagram/com/reefpowermaui

May 20, 2021

Testimony to the Climate, Action & Resilience Committee
Regarding the proposed tourist accommodation moratorium.

by Travis Liggett, President, Reef Power LLC, a Maui small business
www.reefpowermaui.com

Below please find a summary of my calculations to help quantify the impacts of tourism on municipal wastewater pollution loading in Maui Island.

The inputs to these calculations were taken from the Maui County Department of Environmental Management presentation 3/17/2021, as well as UIC Permit reporting documentation provided by the County DEM. The data in the presentation provided plant and reuse flows in March 2020 during peak lockdown, which I compared to average flows from 2019 before the pandemic. This allows us to quantify municipal wastewater pollution loading comparisons between periods when tourism was very prevalent, vs. almost totally absent.

What we can calculate from the data is that the volume of wastewater injected in March 2020 vs. 2019 decreased in Lahaina by 67.05% and in Kihei by 58.61%. This decrease in flow gives a linear decrease in injected coliform cell count CFU Most Probable Numbers, which are an indicator of the potential for the presence of other pathogens that can be harmful. CFU = Colony Forming Unit, which is a unit of pathogen cells that has the potential to start an infection.

In Kihei, coliform cell counts decreased from >179 Billion to >74 Billion MPN injected per day, a 58.61% decrease. In Lahaina, injected coliform counts decreased from < 108 Thousand to < 35 thousand per day, a 67.05% decrease. Kihei WWRF does not employ any disinfection process before wastewater injection and measured cell counts are above the limit of detection for the test at >2419.6 MPN/100 mL water. Lahaina employs UV disinfection before injection and coliform cell counts are below the limit of detection at <1

MPN/100mL. In short, Kihei injectate is too septic to measure with the test used, and Lahaina is so free of coliform cells that it reads below the threshold of detection for the test used.

Additionally, we see that percent reuse in Kihei increased by 45.81%, and the percent reuse in Lahaina increased by 96.85% -- almost doubled -- when comparing March 2020 to 2019 average. In short, the amount of reuse stayed roughly the same, while the volume injected decreased dramatically. A good way to think about this is, the majority of wastewater generated by residents goes to reuse, placing 100% reuse withing reach; but none of the excess flow attributable to the visitor industry goes to reuse. In my humble opinion, the capacity of the municipal wastewater system is defined by the level of reuse attainable, anything less than 100% reuse can be defined as "over-capacity." The baseline population puts us already "over-capacity" with less than 100% reuse -- adding the visitor industry puts 100% reuse further out of reach.

My recommendation for a criterion for ending a moratorium on new visitor accommodations? 100% reuse. Before any new accommodations can be built, make it a requirement to implement 100% municipal reuse for each community. Then, new construction shall only be approved if the required *expansion* in reuse is developed, to offset any increases in plant flows attributable to a given new visitor accommodation development. What you will then have is a very lucrative industry suddenly compelled to get behind new reuse projects financially or in other ways. If developers use full cost accounting to fund expansions in reuse projects with every project, then the market will drive the migration to reuse with breakneck speed!

On the next page please find a summary of my calculations. Inputs are highlighted in blue, outputs of interest are highlighted in yellow.

A detailed spreadsheet with references is also attached to this email.

Mahalo for your consideration!

Travis Liggett
www.instagram.com/reefpowermaui

| Maui municipal wastewater reclamation facility | data designator | timeframe | | value | units |
|---|---|---|---|---|---|
| KIHEI | PLANT FLOW | pre-COVID 2019 average | | 3.70 | MGD |
| KIHEI | PLANT FLOW | March 2020 lockdown | | 2.60 | MGD |
| KIHEI | FLOW REUSED | pre-COVID 2019 average | | 1.75 | MGD |
| KIHEI | FLOW REUSED | 2020 average | | 1.79 | MGD |
| KIHEI | FLOW INJECTED | pre-COVID 2019 average | | 1.95 | MGD |
| KIHEI | FLOW INJECTED | March 2020 lockdown | | 0.81 | MGD |
| KIHEI | % REUSE | pre-COVID 2019 average | | 47.24 | % |
| KIHEI | % REUSE | March 2020 lockdown | | 68.88 | % |
| KIHEI | % increase in % reuse | March 2020 compared to 2019 average | | 45.81 | % |
| KIHEI | % reduction in MGD injection | March 2020 compared to 2019 average | | 58.61 | % |
| KIHEI | REUSE R1 coliform CFU / 100 mL wastewater | August 2020 | < | 1.10 | MPN/100mL |
| KIHEI | INJECTED coliform CFU / 100 mL wastewater | January 5, 2021 | > | 2419.6 | MPN/100mL |
| KIHEI | REUSE R1 coliform CFU total count / day | pre-COVID 2019 average | < | 72,884,882 | CFU |
| KIHEI | REUSE R1 coliform CFU total count / day | March 2020 lockdown | < | 74,576,321 | CFU |
| KIHEI | INJECTED coliform CFU total count / day | pre-COVID 2019 average | > | 179,022,912,505 | CFU |
| KIHEI | INJECTED coliform CFU total count / day | March 2020 lockdown | > | 74,097,841,903 | CFU |
| KIHEI | % decrease INJECTED coliform CFU total count / day | March 2020 compared to 2019 average | | 58.61 | % |
| LAHAINA | PLANT FLOW | pre-COVID 2019 average | | 4.07 | MGD |
| LAHAINA | PLANT FLOW | March 2020 lockdown | | 2.25 | MGD |
| LAHAINA | FLOW REUSED | pre-COVID 2019 average | | 1.20 | MGD |
| LAHAINA | FLOW REUSED | 2020 average | | 1.30 | MGD |
| LAHAINA | FLOW INJECTED | pre-COVID 2019 average | | 2.87 | MGD |
| LAHAINA | FLOW INJECTED | March 2020 lockdown | | 0.95 | MGD |
| LAHAINA | % REUSE | pre-COVID 2019 average | | 29.46 | % |
| LAHAINA | % REUSE | March 2020 lockdown | | 57.99 | % |
| LAHAINA | % increase in % reuse | March 2020 compared to 2019 average | | 96.85 | % |
| LAHAINA | reduction in MGD injection | March 2020 compared to 2019 average | | 67.05 | % |
| LAHAINA | REUSE R1 coliform CFU / 100 mL wastewater | August 2020 | < | 1.00 | MPN/100mL |
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| LAHAINA | REUSE R1 coliform CFU total count / day | March 2020 lockdown | < | 49,387,374 | CFU |
| LAHAINA | INJECTED coliform CFU total count / day | pre-COVID 2019 average | < | 108,618,365 | CFU |
| LAHAINA | INJECTED coliform CFU total count / day | March 2020 lockdown | < | 35,784,351 | CFU |
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| KAHULUI | PLANT FLOW | pre-COVID 2019 average | | 5.64 | MGD |
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| KAHULUI | FLOW REUSED | pre-COVID 2019 average | | 0.28 | MGD |
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| KAHULUI | INJECTED coliform CFU total count / day | 2020 average | > | 462,919,970,583 | CFU |
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# Reef Power LLC


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REEF POWER

| Maui municipal wastewater reclamation facility | data designator | timeframe | value | units | data source | data source link -OR- calculation formula |
|---|---|---|---|---|---|---|
| KIHEI | PLANT FLOW | pre-COVID 2019 average | 3.70 | MGD | Maui County DEM 3/17/2021 Presentation | https://drive.google.com/file/d/1VTzjhK_oLkHue5Klm-9dYtLodrUJBjY1/view?usp=sharing |
| KIHEI | PLANT FLOW | March 2020 lockdown | 2.60 | MGD | Maui County DEM 3/17/2021 Presentation | https://drive.google.com/file/d/1VTzjhK_oLkHue5Klm-9dYtLodrUJBjY1/view?usp=sharing |
| KIHEI | FLOW REUSED | pre-COVID 2019 average | 1.75 | MGD | Maui County DEM 3/17/2021 Presentation | https://drive.google.com/file/d/1VTzjhK_oLkHue5Klm-9dYtLodrUJBjY1/view?usp=sharing |
| KIHEI | FLOW REUSED | 2020 average | 1.79 | MGD | Maui County DEM 3/17/2021 Presentation | https://drive.google.com/file/d/1VTzjhK_oLkHue5Klm-9dYtLodrUJBjY1/view?usp=sharing |
| KIHEI | FLOW INJECTED | pre-COVID 2019 average | 1.95 | MGD | calculated | = 2019 average plant flow - 2019 average reuse |
| KIHEI | FLOW INJECTED | March 2020 lockdown | 0.81 | MGD | calculated | = March 2020 plant flow - 2020 average reuse |
| KIHEI | % REUSE | pre-COVID 2019 average | 47.24 | % | calculated | = 100*( 2019 average reuse/2019 average plant flow) |
| KIHEI | % REUSE | March 2020 lockdown | 68.88 | % | calculated | = 100*(2020 average reuse/March 2020 plant flow) |
| KIHEI | % increase in % reuse | March 2020 compared to 2019 average | 45.81 | % | | = 100*(March 2020 % reuse - 2019 average % reuse)/2019 average % reuse |
| KIHEI | % reduction in MGD injection | March 2020 compared to 2019 average | 58.61 | % | calculated | = 100*(2019 average injected - March 2020 injected)/2019 average injected |
| KIHEI | REUSE R1 coliform CFU / 100 mL wastewater | August 2020 | < 1.10 | MPN/100mL | August 2020 DEM Operator Testing Data Report | https://drive.google.com/file/d/1HahSxZ7c6GyUWzo3mfqsBxy9igDq7PCs/view?usp=sharing |
| KIHEI | INJECTED coliform CFU / 100 mL wastewater | January 5, 2021 | > 2419.6 | MPN/100mL | KIHEI UIC PERMIT, UM-1396 TYPE I - IV TESTING RESULTS | https://drive.google.com/file/d/1p--TluWISVm1Mk9LYYLf2x4RllRiZ6f0/view?usp=sharing |
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| LAHAINA | PLANT FLOW | pre-COVID 2019 average | 4.07 | MGD | Maui County DEM 3/17/2021 Presentation | https://drive.google.com/file/d/1VTzjhK_oLkHue5Klm-9dYtLodrUJBjY1/view?usp=sharing |
| LAHAINA | PLANT FLOW | March 2020 lockdown | 2.25 | MGD | Maui County DEM 3/17/2021 Presentation | https://drive.google.com/file/d/1VTzjhK_oLkHue5Klm-9dYtLodrUJBjY1/view?usp=sharing |
| LAHAINA | FLOW REUSED | pre-COVID 2019 average | 1.20 | MGD | Maui County DEM 3/17/2021 Presentation | https://drive.google.com/file/d/1VTzjhK_oLkHue5Klm-9dYtLodrUJBjY1/view?usp=sharing |
| LAHAINA | FLOW REUSED | 2020 average | 1.30 | MGD | Maui County DEM 3/17/2021 Presentation | https://drive.google.com/file/d/1VTzjhK_oLkHue5Klm-9dYtLodrUJBjY1/view?usp=sharing |
| LAHAINA | FLOW INJECTED | pre-COVID 2019 average | 2.87 | MGD | calculated | = 2019 average plant flow - 2019 average reuse |
| LAHAINA | FLOW INJECTED | March 2020 lockdown | 0.95 | MGD | calculated | = March 2020 plant flow - 2020 average reuse |
| LAHAINA | % REUSE | pre-COVID 2019 average | 29.46 | % | calculated | = 100*(2019 average reuse/2019 average plant flow) |
| LAHAINA | % REUSE | March 2020 lockdown | 57.99 | % | calculated | = 100*(2020 average reuse/March 2020 plant flow) |
| LAHAINA | % increase in % reuse | March 2020 compared to 2019 average | 96.85 | % | calculated | = 100*(March 2020 % reuse - 2019 average % reuse)/2019 average % reuse |
| LAHAINA | reduction in MGD injection | March 2020 compared to 2019 average | 67.05 | % | calculated | = 100*(2019 average injected - March 2020 injected)/2019 average injected |
| LAHAINA | REUSE R1 coliform CFU / 100 mL wastewater | January 7, 2021 | < 1.00 | MPN/100mL | LAHAINA UIC PERMIT, UM-1357 TYPE I & II TESTING RESULTS* | https://drive.google.com/file/d/1RG484jl5lwv64U8uXUTY9Sly_JPy1aQJ/view?usp=sharing |
| LAHAINA | INJECTED coliform CFU / 100 mL wastewater | January 7, 2021 | < 1.00 | MPN/100mL | LAHAINA UIC PERMIT, UM-1357 TYPE I & II TESTING RESULTS | https://drive.google.com/file/d/1RG484jl5lwv64U8uXUTY9Sly_JPy1aQJ/view?usp=sharing |
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| LAHAINA | INJECTED coliform CFU total count / day | March 2020 lockdown | < 35,784,351 | CFU | calculated | = (March 2020 injection)*(37,854,100 100mL/million gallons)*(INJECTED CFU / 100mL water) |
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| KAHULUI | FLOW REUSED | pre-COVID 2019 average | 0.28 | MGD | Maui County DEM 3/17/2021 Presentation | https://drive.google.com/file/d/1VTzjhK_oLkHue5Klm-9dYtLodrUJBjY1/view?usp=sharing |
| KAHULUI | FLOW REUSED | 2020 average | 0.52 | MGD | Maui County DEM 3/17/2021 Presentation | https://drive.google.com/file/d/1VTzjhK_oLkHue5Klm-9dYtLodrUJBjY1/view?usp=sharing |
| KAHULUI | FLOW INJECTED | pre-COVID 2019 average | 5.36 | MGD | calculated | = 2019 average plant flow - 2019 average reuse |
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| KAHULUI | % REUSE | 2020 average | 9.30 | % | calculated | = 100*(2020 average reuse/March 2020 plant flow) |
| KAHULUI | % increase in % reuse | 2020 average compared to 2019 average | 87.15 | % | calculated | = 100*(March 2020 % reuse - 2019 average % reuse)/2019 average % reuse |
| KAHULUI | reduction in MGD injection | 2020 average compared to 2019 average | 5.72 | % | calculated | = 100*(2019 average injected - March 2020 injected)/2019 average injected |
| KAHULUI | REUSE R1 coliform CFU / 100 mL wastewater | May 11, 2021 | no data available | MPN/100mL | | |
| KAHULUI | INJECTED coliform CFU / 100 mL wastewater | May 11, 2021 | > 2419.6 | MPN/100mL | WAILUKU/KAHULUI UIC PERMIT, UM-1398 TYPE I - IV TESTING RESULTS | https://drive.google.com/file/d/1usewTW0aaNYSkcGQroNzD8TtBW6D173I/view?usp=sharing |
| KAHULUI | REUSE R1 coliform CFU total count / day | pre-COVID 2019 average | no data available | CFU | | |
| KAHULUI | REUSE R1 coliform CFU total count / day | 2020 average | no data available | CFU | | |
| KAHULUI | INJECTED coliform CFU total count / day | pre-COVID 2019 average | > 491,026,099,080 | CFU | calculated | = (2019 average injection)*(37,854,100 100mL/million gallons)*(INJECTED CFU / 100mL water) |
| KAHULUI | INJECTED coliform CFU total count / day | 2020 average | > 462,919,970,583 | CFU | calculated | = (March 2020 injection)*(37,854,100 100mL/million gallons)*(INJECTED CFU / 100mL water) |
| KAHULUI | % decrease INJECTED coliform CFU total count / day | 2020 average compared to 2019 average | 5.72 | % | calculated | = (2019 average coliform CFU INJ per day - March 2020 coliform CFU INJ per day) / 2019 average coliform CFU INJ per day |

*we are assuming that the reuse R1 water distributed in Lahaina has an equivalently excellent level of disinfection as the injected water, at <1 MPC/100mL CFO cliform

## CARE Committee

**From:** travis liggett <travis@reefpowermaui.com>
**Sent:** Friday, May 21, 2021 10:59 AM
**To:** CARE Committee
**Cc:** Yukilei Sugimura
**Subject:** REEF POWER LLC - Updated CARE Committee testimony v2.0
**Attachments:** Travis Liggett Reef Power calling card.JPG; Reef Power LLC - CARE Committee testimony spreadsheet v5.0.xlsx; Reef Power LLC - CARE Committee testimony v2.0.pdf

Aloha Councilmembers,

Attached please find a revised copy of my written testimony in support of the visitor accommodations moratorium. I found an error and have corrected it in the attached v2.0.

Mahalo for your consideration!

Sincerely,
Travis Liggett

# Reef Power LLC


**Travis A. Liggett**

President

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Paia, Hawai'i 96779

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REEF POWER

May 20, 2021

Testimony v2.0
Climate Action, Resilience and the Environment Committee
Regarding the proposed tourist accommodation moratorium.

by Travis Liggett, President, Reef Power LLC, a Maui small business
www.reefpowermaui.com

Below please find a summary of my calculations to help quantify the impacts of tourism on municipal wastewater pollution loading in Maui Island.

The inputs to these calculations were taken from the Maui County Department of Environmental Management presentation 3/17/2021, as well as UIC Permit reporting documentation provided by the County DEM. The data in the presentation provided plant and reuse flows in March 2020 during peak lockdown, which I compared to average flows from 2019 before the pandemic. This allows us to quantify municipal wastewater pollution loading comparisons between periods when tourism was very prevalent, vs. almost totally absent.

What we can calculate from the data is that the volume of wastewater injected in March 2020 vs. 2019 decreased in Lahaina by 67.05% and in Kihei by 58.61%. This decrease in flow gives a linear decrease in injected coliform cell count CFU Most Probable Numbers, which are an indicator of the potential for the presence of other pathogens that can be harmful. CFU = Colony Forming Unit, which is a unit of pathogen cells that has the potential to start an infection.

In Kihei, coliform cell counts decreased from >179 Billion to >74 Billion MPN injected per day, a 58.61% decrease. In Lahaina, injected coliform counts decreased from <108 Million to <35 Million per day, a 67.05% decrease. Kihei WWRF does not employ any disinfection process before wastewater injection and measured cell counts are above the limit of detection for the test at >2419.6 MPN/100 mL water. Lahaina employs UV disinfection before injection and

coliform cell counts are below the limit of detection at <1 MPN/100mL. In short, Kihei injectate is too septic to measure with the test used, and Lahaina is so free of coliform cells that it reads below the threshold of detection for the test used.

Additionally, we see that percent reuse in Kihei increased by 45.81%, and the percent reuse in Lahaina increased by 96.85% -- almost doubled -- when comparing March 2020 to 2019 average. In short, the amount of reuse stayed roughly the same, while the volume injected decreased dramatically. A good way to think about this is, the majority of wastewater generated by residents goes to reuse, placing 100% reuse withing reach; but none of the excess flow attributable to the visitor industry goes to reuse. In my humble opinion, the capacity of the municipal wastewater system is defined by the level of reuse attainable, anything less than 100% reuse can be defined as "over-capacity." The baseline population puts us already "over-capacity" with less than 100% reuse -- adding the visitor industry puts 100% reuse further out of reach.

My recommendation for a criterion for ending a moratorium on new visitor accommodations? 100% reuse. Before any new accommodations can be built, make it a requirement to implement 100% municipal reuse for each community. Then, new construction shall only be approved if the required *expansion* in reuse is developed, to offset any increases in plant flows attributable to a given new visitor accommodation development. What you will then have is a very lucrative industry suddenly compelled to get behind new reuse projects financially or in other ways. If developers use full cost accounting to fund expansions in reuse projects with every project, then the market will drive the migration to reuse with breakneck speed!

On the next page please find a summary of my calculations. Inputs are highlighted in blue, outputs of interest are highlighted in yellow.

A detailed spreadsheet with references is also attached to this email.

Mahalo for your consideration!

Travis Liggett
www.instagram.com/reefpowermaui

| Maui municipal wastewater reclamation facility | data designator | timeframe | value | units |
|---|---|---|---|---|
| KIHEI | PLANT FLOW | pre-COVID 2019 average | 3.70 | MGD |
| KIHEI | PLANT FLOW | March 2020 lockdown | 2.60 | MGD |
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| KIHEI | REUSE R1 coliform CFU total count / day | March 2020 lockdown | < 74,576,321 | CFU |
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| LAHAINA | FLOW REUSED | 2020 average | 1.30 | MGD |
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| LAHAINA | FLOW INJECTED | March 2020 lockdown | 0.95 | MGD |
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| KIHEI | FLOW INJECTED | March 2020 lockdown | | 0.81 | MGD | calculated |
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| KIHEI | % REUSE | March 2020 lockdown | | 68.88 | % | calculated |
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| LAHAINA | FLOW REUSED | pre-COVID 2019 average | | 1.20 | MGD | Maui County DEM 3/17/2021 Presentation |
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| LAHAINA | FLOW INJECTED | pre-COVID 2019 average | | 2.87 | MGD | calculated |
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| KAHULUI | PLANT FLOW | pre-COVID 2019 average | | 5.64 | MGD | Maui County DEM 3/17/2021 Presentation |
| KAHULUI | PLANT FLOW | 2020 average | | 5.57 | MGD | Maui County DEM 3/17/2021 Presentation |
| KAHULUI | FLOW REUSED | pre-COVID 2019 average | | 0.28 | MGD | Maui County DEM 3/17/2021 Presentation |
| KAHULUI | FLOW REUSED | 2020 average | | 0.52 | MGD | Maui County DEM 3/17/2021 Presentation |
| KAHULUI | FLOW INJECTED | pre-COVID 2019 average | | 5.36 | MGD | calculated |
| KAHULUI | FLOW INJECTED | 2020 average | | 5.05 | MGD | calculated |
| KAHULUI | % REUSE | pre-COVID 2019 average | | 4.97 | % | calculated |
| KAHULUI | % REUSE | 2020 average | | 9.30 | % | calculated |
| KAHULUI | % increase in % reuse | 2020 average compared to 2019 average | | 87.15 | % | calculated |
| KAHULUI | reduction in MGD injection | 2020 average compared to 2019 average | | 5.72 | % | calculated |
| KAHULUI | REUSE R1 coliform CFU / 100 mL wastewater | May 11, 2021 | | no data available | MPN/100mL | |
| KAHULUI | INJECTED coliform CFU / 100 mL wastewater | May 11, 2021 | > | 2419.6 | MPN/100mL | WAILUKU/KAHULUI UIC PERMIT, UM-1398 TYPE I - IV TESTING RESULTS |
| KAHULUI | REUSE R1 coliform CFU total count / day | pre-COVID 2019 average | | no data available | CFU | |
| KAHULUI | REUSE R1 coliform CFU total count / day | 2020 average | | no data available | CFU | |
| KAHULUI | INJECTED coliform CFU total count / day | pre-COVID 2019 average | > | 491,026,099,080 | CFU | calculated |
| KAHULUI | INJECTED coliform CFU total count / day | 2020 average | > | 462,919,970,583 | CFU | calculated |
| KAHULUI | % decrease INJECTED coliform CFU total count / day | 2020 average compared to 2019 average | | 5.72 | % | calculated |

**data source link -OR- calculation formula**

https://drive.google.com/file/d/1VTzjhK_oLkHue5KIm-9dYtLodrUJBjY1/view?usp=sharing
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https://drive.google.com/file/d/1VTzjhK_oLkHue5KIm-9dYtLodrUJBjY1/view?usp=sharing
= 2019 average plant flow - 2019 average reuse
= March 2020 plant flow - 2020 average reuse
= 100*( 2019 average reuse/2019 average plant flow)
= 100*(2020 average reuse/March 2020 plant flow)
= 100*(March 2020 % reuse - 2019 average % reuse)/2019 average % reuse
= 100*(2019 average injected - March 2020 injected)/2019 average injected
https://drive.google.com/file/d/1HahSxZ7c6GyUWzo3mfqsBxy9igDq7PCs/view?usp=sharing

https://drive.google.com/file/d/1p--TluWISVm1Mk9LYYLf2x4RllRIZ6f0/view?usp=sharing

= (2019 average reuse)*(37,854,100 100mL/million gallons)*(REUSE R1 CFU / 100mL water)
= (2020 average reuse)*(37,854,100 100mL/million gallons)*(REUSE R1 CFU / 100mL water)
= (2019 average injection)*(37,854,100 100mL/million gallons)*(INJECTED CFU / 100mL water)
= (March 2020 injection)*(37,854,100 100mL/million gallons)*(INJECTED CFU / 100mL water)
= 100*(2019 average coliform CFU INJ per day - March 2020 coliform CFU INJ per day) / 2019 average coliform CFU INJ per day

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https://drive.google.com/file/d/1VTzjhK_oLkHue5KIm-9dYtLodrUJBjY1/view?usp=sharing
= 2019 average plant flow - 2019 average reuse
= March 2020 plant flow - 2020 average reuse
= 100*(2019 average reuse/2019 average plant flow)
= 100*(2020 average reuse/March 2020 plant flow)
= 100*(March 2020 % reuse - 2019 average % reuse)/2019 average % reuse
= 100*(2019 average injected - March 2020 injected)/2019 average injected

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*we are assuming that the reuse R1 water distributed in Lahaina has an equivalently excellent level of disinfection as the injected water, a

https://drive.google.com/file/d/1RG484jI5Iwv64U8uXUTY9Sly_JPy1aQJ/view?usp=sharing

= (2020 average reuse)*(37,854,100 100mL/million gallons)*(REUSE R1 CFU / 100mL water)
= (2020 average reuse)*(37,854,100 100mL/million gallons)*(REUSE R1 CFU / 100mL water)
= (2019 average injection)*(37,854,100 100mL/million gallons)*(INJECTED CFU / 100mL water)
= (March 2020 injection)*(37,854,100 100mL/million gallons)*(INJECTED CFU / 100mL water)
= (2019 average coliform CFU INJ per day - March 2020 coliform CFU INJ per day) / 2019 average coliform CFU INJ per day

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https://drive.google.com/file/d/1VTzjhK_oLkHue5KIm-9dYtLodrUJBjY1/view?usp=sharing
= 2019 average plant flow - 2019 average reuse
= March 2020 plant flow - 2020 average reuse
= 100*(2019 average reuse/2019 average plant flow)
= 100*(2020 average reuse/March 2020 plant flow)
= 100*(March 2020 % reuse - 2019 average % reuse)/2019 average % reuse
= 100*(2019 average injected - March 2020 injected)/2019 average injected

https://drive.google.com/file/d/1usewTW0aaNYSkcGQroNzD8TtBW6D173I/view?usp=sharing

= (2019 average injection)*(37,854,100 100mL/million gallons)*(INJECTED CFU / 100mL water)
= (March 2020 injection)*(37,854,100 100mL/million gallons)*(INJECTED CFU / 100mL water)
= (2019 average coliform CFU INJ per day - March 2020 coliform CFU INJ per day) / 2019 average coliform CFU INJ per day

t <1 MPC/100mL CFO cliform

## CARE Committee

**From:** travis liggett <travis@reefpowermaui.com>
**Sent:** Sunday, May 23, 2021 5:55 PM
**To:** CARE Committee
**Cc:** Keani N. Rawlins; Tasha A. Kama
**Subject:** Reef Power LLC -- moratorium testimony PART II - READ BEFORE VOTE!!!
**Attachments:** Travis Liggett Reef Power calling card.JPG; Reef Power LLC - CARE Written Testimony Part II.pdf

**Follow Up Flag:** Follow up
**Flag Status:** Flagged

Aloha Councilmembers,

Attached please find Part II of my written testimony in support of the visitor accommodations moratorium. Please read it before you vote on the moratorium.

Do not hesitate to call 808-757-5984 anytime with questions or comments.

Mahalo for your service!

Travis Liggett
President, Reef Power LLC
www.reefpowermaui.com

# Reef Power LLC


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President

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REEF POWER

Reef Power LLC Written Testimony - PART II
to the Climate Action, Resilience and the Environment Committee of the Maui County Council

May 23, 2021

Re: Proposed visitor accommodations moratorium

Aloha,

I am now taking one last opportunity to advise you on the proper disposition toward new real estate development in Maui as relates to municipal wastewater disposal: the existing municipal systems are operating "over capacity," even with only the baseline loading of the resident population[1], so all development, including real estate development, should be placed in moratorium with the following criterion to resume in each Maui zip code:

1. Reuse is expanded to 100% current municipal wastewater reclamation plant flowrates
2. After completing #1, all new development must be supported by 100% reuse or some other wastewater disposal methods that are sane and sustainable.

What this means is that any new residential or visitor accommodations development that proposes to connect to any municipal system should only happen after 100% reuse is implemented on existing flows. Then, all new development shall be required to certify that new dedicated reuse projects can accommodate 100% of new raw sewage produced, 100% of the time. One exception: truly affordable housing is exempt. Then you will have the entire impetus to develop housing bifurcated into two legally allowable outlets:

1. truly affordable housing dedicated to sheltering and building wealth for existing resident working populations, or
2. high end housing that is truly sustainable.

Why is this important? Right now, because the County of Maui Department of Environmental Management has historically never made it a priority, there is no disinfection treatment step employed on injected municipal wastewater in South Maui, so fecal coliform levels in municipal effluent flowing into nearshore injection wells test above the detection limit of 2419.6 MPN CFU / 100 mL wastewater[2]. That means that the most probable number of fecal coliform cells in the unsterilized wastewater flowing through groundwater into the ocean in Kihei contains at least 2419.6 Colony Forming Units (CFU = a unit of pathogen cells with the capability to start an infection in a host organism, or "Infection Forming Unit") of fecal coliform. Fecal coliform is generally harmless, but it is routinely measured because it provides an indication of the potential for the

[1] Reef Power LLC Written Testimony on Visitor Accommodations Moratorium Part I - v2.0
[2] KIHEI UIC Permit, UM-1396 Type I - IV Testing Results - January 5, 2021

presence of other biological entities that can be pathogenic, or illness-causing, in persons who engage in recreation in nearshore waters within the injection well plume, such as Cove Park in Kihei. And please remember, in Kihei, every visitor who poops and pees into the municipal system has just internally transported an actual zoo of viruses and bacteria from all around the world, rendering the global jet travel system an extended physical mass transport system that routes disease-forming life forms inside visitors' bodies from all around the world, into the toilet and shower, through the sewer mains, through the wastewater reclamation facility where no disinfection is employed, through injection wells then groundwater, and finally into nearshore human recreation environments and reefs. One can add up the total time it takes a disease-forming lifeform living inside the bowels of a future Maui visitor from the other side of the world, to arriving in nearshore waters within the non-disinfected injection well plume in Kihei, to making a resident sick:

1. Visitor ground and air travel time from origin home residence, to Maui accommodations unit +
2. Time from first flush, time through sewer mains, time through wastewater reclamation facility +
3. Groundwater transit time for non-disinfected wastewater to migrate from injection well to reef +
4. Time of local resident swimming to render a Colony Forming Unit into an "Infection Forming Unit" +
5. Incubation time of the pathogen to allow for exponential pathogen cell division and illness or death.

Without disinfection of injected wastewater, it may not be very long before an infected person on the other side of the world leads to a sick local resident in Maui via non-disinfected municipal injection well discharges. This is a fundamental cognitive and design flaw, and 100% injectate disinfection must be implemented before a single new visitor accommodation flushes into the Kihei municipal wastewater reclamation system. The physical system as it exists presently embodies a deadly nexus of failed leadership, greed, incompetence and community apathy. As an immunocompromised sufferer of lower limb lymphedema, I have been hospitalized twice in the past decade with systemic bacterial cellulitis infections that laid me out on an IV antibiotic drip for weeks at Maui Memorial Hospital. Now I know the source of my near-death experiences: lack of sterilization of injected wastewater in South Maui where I was swimming. Now that I know about the absence of any disinfection treatment of injected municipal wastewater in South Maui, I don't know if I will elect to swim in nearshore waters within a few miles of Kalama Park, where the injection well plume is centered, until disinfection is implemented.

Below please find visualizations of this septic plume developed in a USGS publication by Hunt in 2007[3]. Since the fecal coliform tests performed for UIC permit reporting came in at above the detection limit of the test, we can look at a DOH source describing coliform counts for non-disinfected septic tank effluent to see the range that may actually exist in non-disinfected injected wastewater in Kihei: 40,000 to 160 MILLION CFU / 100 mL[4].

[3] Ground-Water Nutrient Flux to Coastal Waters and Numerical Simulation of Wastewater Injection at Kihei, Maui, Hawaii
[4] HI DOH Onsite Wastewater Treatment Survey and Assessment

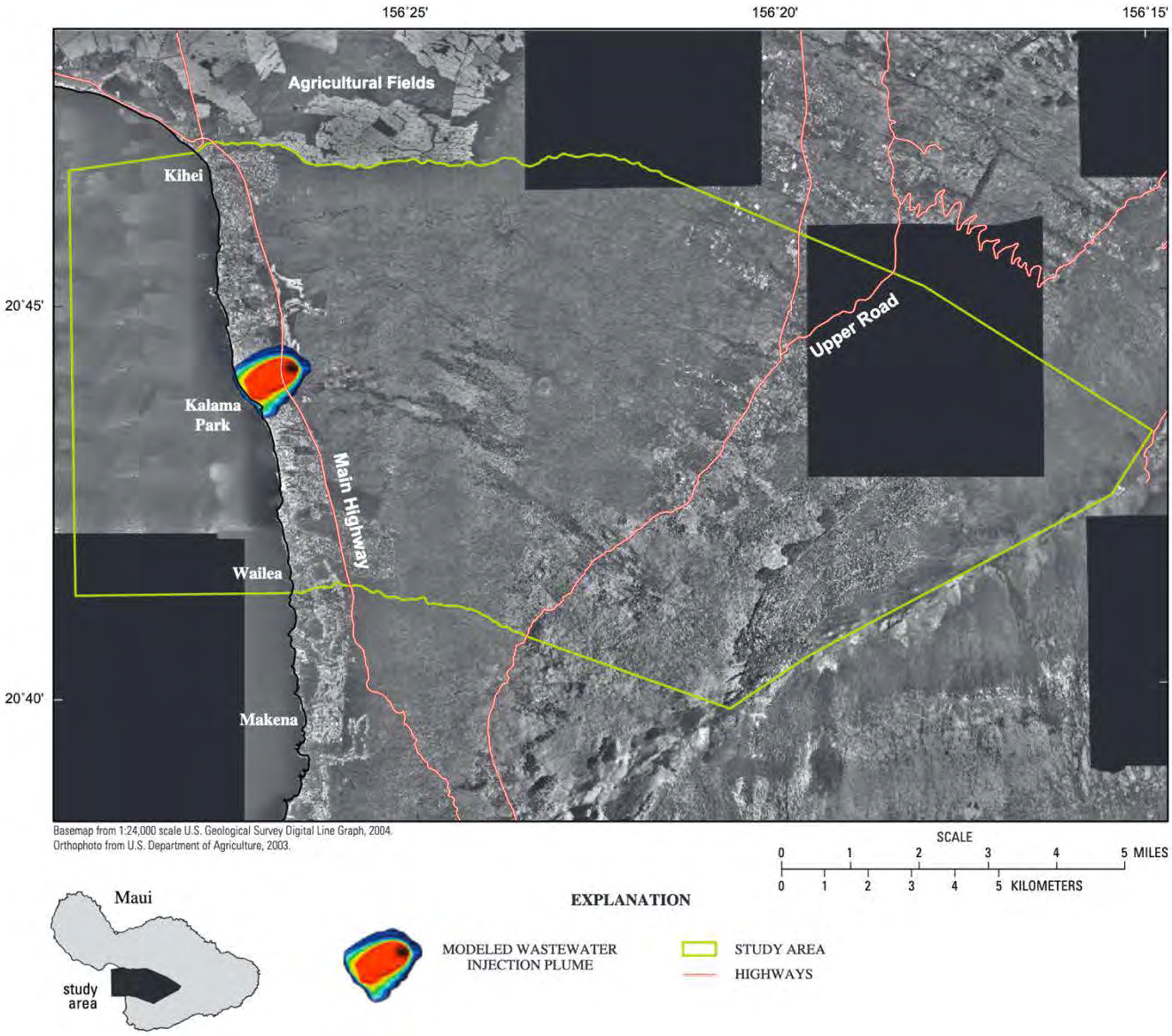



**Figure E1.** Aerial photomosaic showing the Kihei study area and injected wastewater effluent plume as estimated by numerical modeling, Kihei, Hawaii. The effluent plume is roughly a mile long and a mile wide (0.93 mi, or 1.5 km) and flows beneath the urban strip seaward of the main highway. Colors represent effluent concentration, from 100 percent effluent at the plume core to 5 percent effluent at the outer plume margin. The area inland of the highway is mostly dryland forest, with a few farms and rural homesteads along an upper road at 3,000 feet elevation.

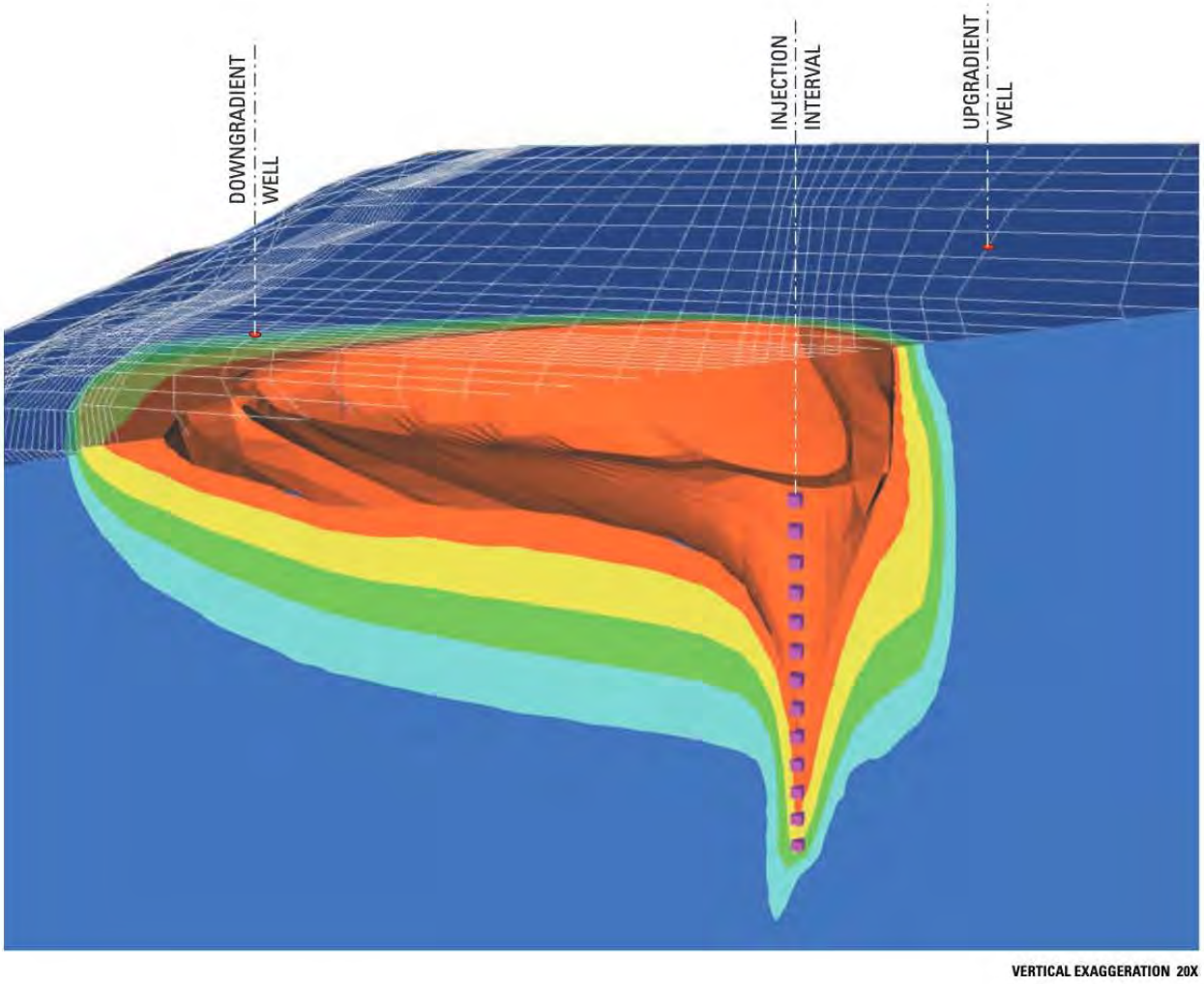



**Figure E3.** Cutaway block diagram showing the modeled injection plume, Kihei, Hawaii. View is to the northwest. The injection plume is visualized as effluent-tracer concentration, and the core of the plume is revealed by omitting concentrations greater than 90 percent. The small cubes are fluid-source nodes in the model that correspond to the open interval of the injection well. Injected effluent rises buoyantly, spreads out near the top of the aquifer, and flows to the coast; it also mixes with surrounding ground water, resulting in the gradation in effluent concentration shown.

The list of pathogen microbial species commonly found in non-disinfected wastewater is long and terrifying, shown in the U.S. NIH list below. COVID-19 is also found in non-disinfected wastewater[5].

*The major pathogens of concern in municipal wastewater and diseases or illness associated with them*[6]

| Name of pathogen | Major disease or symptoms |
|---|---|
| **Bacteria** | |
| Campylobacter jejuni | Gastroenteritis |
| Escherichia coli | Gastroenteritis |
| Salmonella spp. | Salmonellosis, typhoid, paratyphoid |
| Shigella spp. | Bacillary dysentery |
| Vibrio cholerae | Cholera |
| Yersinia spp. | Gastroenteritis |
| **Viruses** | |
| Adenovirus | Upper respiratory infection and gastroenteritis |
| Astrovirus | Gastroenteritis |
| Coxsackie virus | Meningitis, pneumonia, fever |
| Echovirus | Meningitis, paralysis, encephalitis, fever |
| Hepatitis A virus | Infectious hepatitis |
| Hepatitis E virus | Infectious hepatitis, miscarriage, and death |
| Human calicivirus | Epidemic gastroenteritis with severe diarrhea |
| Polio virus | Poliomyelitis |
| Reovirus | Respiratory infections, gastroenteritis |
| Rotavirus | Acute gastroenteritis with severe diarrhea |
| TT hepatitis | Hepatitis |
| **Protozoa** | |
| Balantidium coli | Balantidiasis |
| Cryptosporidium spp. | Cryptosporidiosis |
| Entamoeba histolytica | Acute amoebic dysentery |
| Giardia duodenalis | Giardiasis |
| Toxoplasma gondii | Toxoplasmosis |
| **Helminths** | |
| Ascaris lumbricoides | Ascariosis |
| Ascaris suum | Coughing and chest pain |
| Hymenolepis nana | Hymenolepiasis |
| Necator americanus | Hookworm disease |
| Taenia saginata | Insomnia, anorexia |
| Taenia solium | Insomnia, anorexia |
| Toxocara canis | Fever, abdominal pain, muscle ache |
| Trichuris trichiura | Diarrhea, anemia, weight loss |

[5] Sewage poses potential COVID-19 transmission risk, experts warn

[6] Pathogen and Particle Associations in Wastewater - Significance and Implications for Treatment and Disinfection Processes

You may have noticed tumors on the faces and bodies of sea turtles in Maui. *Kihei, Maui, has been called a "ground zero" for fibropapillomatosis, the disease that is caused by a herpes virus and manifests as tumors in turtles*[7]. The virus is injected into the environment, and the ingestion by green sea turtles of invasive ocean algae, fed by excess nitrogen found in high concentrations in injected wastewater in Kihei[2], causes the unchecked growth of the tumors, a leading cause of death of the endangered species.

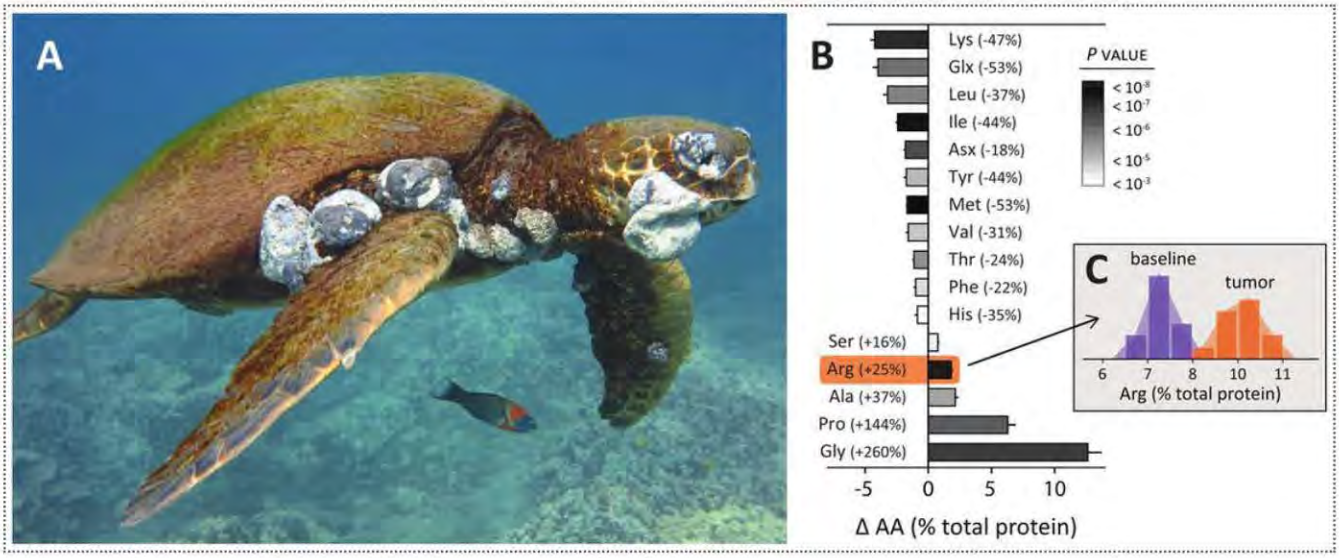



**Figure 1:** (A) Juvenile green turtle (*Chelonia mydas*) severely afflicted with fibropapillomatosis, a tumor-forming disease associated with *α*-herpesviruses. Photo: August 2012 Makena, Maui (credit: Chris Stankis, Flickr/Bluewavechris). (B) Amino acid profiles from turtle tissues show fibropapilloma tumors are notably enriched in glycine, proline and arginine, and depleted in lysine. Glycine is a known tumor biomarker; proline aids herpesvirus infections; and arginine and lysine promote and inhibit herpesviruses, respectively. Bars represent the average difference between tumor and baseline tissue for 12 individual turtles, percent changes from baseline percent total protein listed in parentheses, error bars are SEM. Bar color indicates *P* values from two-tailed paired *t*-tests. (C) Underlying histograms for arginine content in baseline and tumor tissue samples, bars are raw values, curves are smoothed trend.

[7] Eutrophication and the dietary promotion of sea turtle tumors

Linking the expiration of a legislated moratorium on new visitor and luxury housing units, to the implementation of solutions to wastewater goals, such as disinfection and 100% reuse for municipal wastewater, is a clever way to domesticate the "wild stallion" of capitalism and profits, to pull the "cart" of quality of life, to realize expensive but absolutely essential outcomes, to preserve the collective sense of place that drives the very demand at the root of pressure to develop.

My journey on the path to realize improvements in wastewater management goes back to the year 1984, when 8-year-old Travis became so sick from non-disinfected wastewater that he felt like his fingers would fall off due to skin infections. What started as eczema evolved into severe impetigo. After some investigation, we learned through a dye test that my uncle's septic tank was flowing directly into the stream I played in. Then we found that the mobile home park upstream on the Mississenewa River was discharging their primary treated wastewater directly into the river that the stream flowed into at the corner of our lot. I was so sick that we had to sell the house that my parents had built by themselves with their own two hands, and our entire family of 6 had to move to a new home. That essential trauma of total and complete, 100% loss of place, drives me to this day. There is no better community than Maui. I want to do everything in my power to protect you from the trauma I suffer, the trauma of loss of place, because once you lose it, it is difficult or impossible to get it back within a single lifetime. The limit to one's sense of loss of place can go all the way to 100%, and dramatic action is needed to arrest and reverse the process in Maui. New visitor accommodation ***and housing real estate*** development should resume only when 100% municipal wastewater reuse is achieved in a given zip code, and then only when new reuse projects are developed proportionally to any new system flow. The only exception to this moratorium should be truly affordable housing earmarked for existing resident workforce populations. By linking limits on development to wastewater management goals, you will unleash the momentum of the real estate development market to push forward the solutions to two difficult community problems -- affordable housing and injection wells -- with the full force of the industry.

In closing, I will refer to the below partial list of downstream species found in nearshore waters in Ma'alaea Bay, where non-disinfected wastewater flows 24/7. *Each year, tens of thousands of whales travel thousands of miles from their summer feeding grounds to winter breeding grounds. Hawaii, and most abundantly the shallow waters between Molokai, Lanai, Kahoolawe and Maui, is the largest breeding ground for North Pacific whales, most of whom are coming from the northwest coast of North America*[8].

The system we have in place is a global jet travel industry transporting disease-forming pathogens from around the world inside visitors, into the toilets of Kihei, then the County of Maui DEM collecting and injecting it without disinfection into the world's most important humpback whale calving waters. With disinfection and 100% reuse, we can heal our waters and return to a sane world in which further visitor and luxury housing accommodations make sense. We do not presently live in such a world and it will take a concerted human effort across all levels of Maui society to prevent a total loss of sense of place, by residents and visitors alike.

Mahalo for your attention!

Sincerely,
Travis Liggett
President, Reef Power LLC
www.reefpowermaui.com

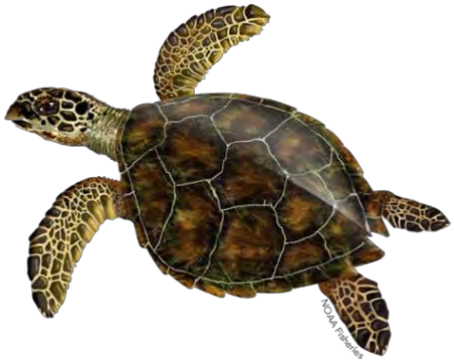
[8] Humpback Migration to Hawaiian Breeding Grounds

Humpback Whale
"kuapio kohola"
*Megaptera novaeangliae*

Blacktip Reef Shark
"mano pa'ele"
*Carcharhinus melanopterus*

Whitetip Reef Shark
"mano lalakea"
*Triaenodon obesus*

Hawksbill Sea Turtle
"honu'ea"
*Eretmochelys imbricata*



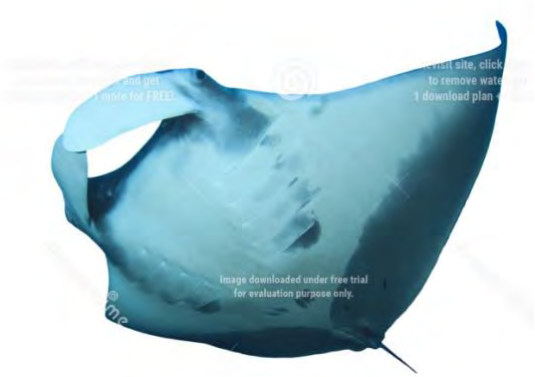
Green Sea Turtle
"honu"
*Chelonia mydas*

Night Octopus
"he'e"
*Callistoctopus ornatus*

Day Octopus
"he'e-mākoko"
*Octopus cyanea*

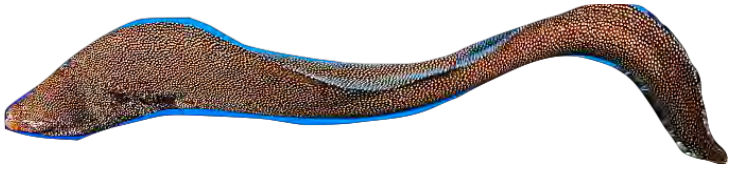
Broad Stingray
"lupe"
*Dasyatis lata*

Manta Ray
"hahalua"
*Mobula alfredi*



Hawaiian Monk Seal
"llio-holo-i-ka-uaua"
*Neomonachus schauinslandi*

Turkey Moray
"puhi ‘oni’o"
*Gymnothorax meleagris*



Yellow-edged Moray
"puhi paka"
*Gymnothorax flavimarginatus*

Rice Coral
"ko’a"
*Montipora capitata*

Hawaiian Blackfoot Limpet
"‘opihi"
*Cellana exarata*

Blue-Black Urchin
"wana"
*Echinothrix diadema*

Yellow Tang
"lau'ipala"
*Zebrasoma flavescens*

Bullethead Parrotfish
"uhu"
*Chlorurus sordidus*


Reef Trigger Fish
"humuhumunukunukuapua'a"
*Rhinecanthus rectangulus*

Arc-eye Hawkfish
"piliko'a"
*Paracirrhites arcatus*

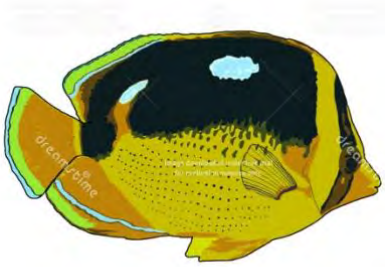
Hawaiian Damselfish
"'alo'ilo'i"
*Dascyllus albisella*

Moorish Idol
"kihikihi"
*Zanclus cornutus*

Raccoon Butterflyfish
"kīkākapu"
*Chaetodon lunula*

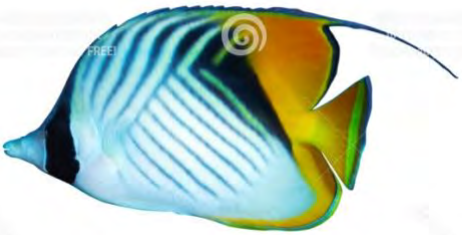

Ornate Butterflyfish
"kīkākapu"
*Chaetodon ornatissimus*

Fourspot Butterflyfish
"lauhau"
*Chaetodon quadrimaculatus*



Millet Butterflyfish
"lau wiliwili"
*Chaetodon miliaris*

Threadfin Butterflyfish
"kikakapu"
*Chaetodon auriga*

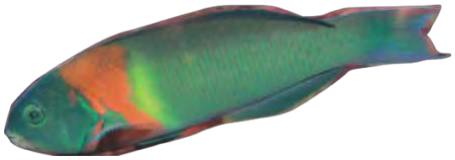


Yellow Longnose Butterflyfish
"lau-wiliwili-nukunuku'oi'oi"
*Forcipiger flavissimus*

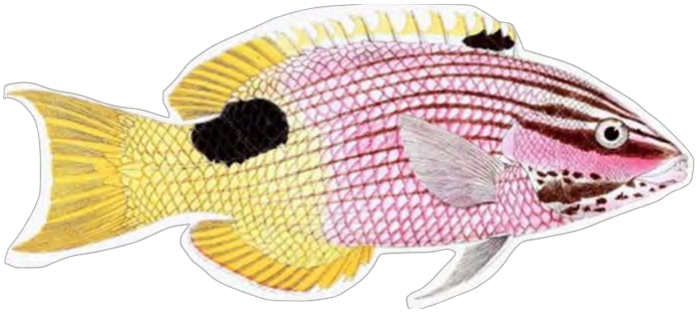
Hawaiian Whitespotted Toby
*Canthigaster jactator*

Achilles Tang
"paku'iku'i"
*Acanthurus achilles*

Saddle Wrasse
"hinalea lau-wili"
*Thalassoma duperrey*



Tarry Hogfish
"'a'awa"
*Bodianus bilunulatus*



Orange Band Surgeonfish
"na'ena'e"
*Acanthurus olivaceus*

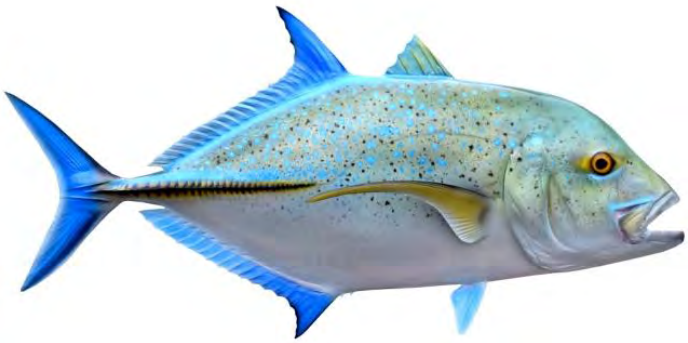
Bluespine Unicornfish
"kala"
*Naso unicornis*

Pacific Orangespine Unicornfish
"umaumalei"
*Naso lituratus*

Black Triggerfish
"humuhumu ele ele"
*Melichthys niger*

Hawaiian Squirrelfish
"'ala'ihi"
*Sargocentron xantherythrum*

Bluefin Trevally
"'omilu"
*Caranx melampygus*



Hawaiian Lionfish
"honu pinao"
*Pterois sphex*

Convict Tang
"manini"
*Acanthurus triostegus*

Whitesaddle Goatfish
"kūmū"
*Parupeneus porphyreus*

Striped Mullet
"ʻamaʻama"
*Mugil cephalus*

Hawaiian Cleaner Wrasse
*Labroides phthirophagus*


Manybar Goatfish
"moano"
*Parupeneus multifascatus*

Spinner Dolphin
"nai'a"
*Stenella longirostris*

Bigeye Tuna
"'ahi"
*Thunnus obesus*

Hawaiian Flagtail
"āholehole"
*Kuhlia sandvicensis*

Milkfish
"awa"
*Chanos chanos*

Striped Threadfin
"moi"
*Polydactylus plebeius*

Bonefish
" ʻŌʻio"
*Albula vulpes*

*Regal Parrotfish*
*"lauia"*
*Scarus dubius*

Ember Parrotfish (male)
"uhu ‘ele‘ele"
*Scarus rubroviolaceus*

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"uhu palukaluka"
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Spectacled Parrotfish (male)
"uhu uliuli"
*Chlorurus perspicillatus*

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Goldsaddle Goatfish
"moano kea"
*Parupeneus cyclostomus*

Twosaddle Goatfish
"munu"
*Parupeneus insularis*

Yellowfin Goatfish
"weke nono"
*Mulloidichthys vanicolensis*

Sleek Unicornfish
"'ōpelu kala"
*Naso hexacanthus*

Blue-green Snapper
"uku"
*Aprion virescens*

Yellowstripe Goatfish
"weke"
*Mulloidichthys flavolineatus*

Antler seaweed (edible)
"limu wawae'iole"
*Codium edule*

red marine macroalgae (edible)
"limu manauea"
*Gracilaria coronopifolia*

filamentous marine macroalgae (edible)
"limu ele‘ele"
*Enteromorpha prolifera*

Red Sea Plume (edible)
"limu kohu"
*Asparagopsis taxiformis*

red marine macroalgae (edible)
"limu huluhuluwaena"
*Grateloupia filicina*

Sea Lettuce (edible)
"limu palahalaha"
*Ulva fasciata*

Prickly Sargassum (edible)
"limu kala"
*Sargassum echinocarpum*

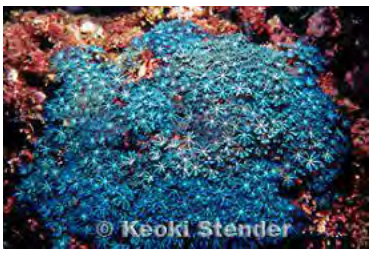
marine macroalgae (edible)
"limu lipoa"
*Dictyopteris plagiogramma*

Mushroom Coral
"Ako ako a kohe"
*Lobactis scutaria*

Lace Coral
*Pocillopora damicornis*

Cauliflower Coral
*Pocillopora meandrina*

Blue Soft Coral
"Hawaiian blue octocoral"
*Sarcothelia edmondsoni*




Lobe Coral
"pohaku puna"
*Porites lobata*

Stony Coral
"ako`ako`a"
*Porites evermanni*

Finger Coral
"pohaku puna"
*Porites compressa*

Knobby Finger Coral
*Porites duerdeni*

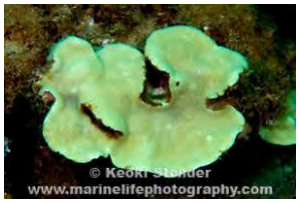
Brigham's Coral
*Porites brighami*

Solid Coral
*Porites solida*

Plate & Knob Coral
*Porites monticulosa*

Plate & Pillar Coral
*Porites rus*


*Lichen Coral*
*Porites lichen*




Hawaiian Porties
*Porites hawaiiensis*


*Click below to learn more about Reef Power LLC.*

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## CARE Committee

**From:** travis liggett <travis@reefpowermaui.com>
**Sent:** Monday, May 24, 2021 8:14 PM
**To:** CARE Committee
**Cc:** Keani N. Rawlins; Tasha A. Kama
**Subject:** Reef Power LLC - CARE Written Testimony Part II - v2.0
**Attachments:** Reef Power LLC - CARE Written Testimony Part II - v2.0.pdf

**Follow Up Flag:** Follow up
**Flag Status:** Flagged

Aloha,

Attached please find a revised version v2.0 of my written testimony Part II that I sent yesterday in support of the proposed visitor accommodations moratorium.

The only revision in the new version v2.0 is that we updated a few of the images in the list of downstream species who live in the non-sterilized injection well discharge plume that flows into Ma'alaea Bay. The attached version v2.0 replaces the original version emailed yesterday.

Mahalo!
Travis Liggett
President, Reef Power LLC

www.reefpowermaui.com

Reef Power LLC Written Testimony - PART II - v2.0
to the Climate Action, Resilience and the Environment Committee of the Maui County Council

May 24, 2021

Re: Proposed visitor accommodations moratorium

Aloha,

I am now taking one last opportunity to advise you on the proper disposition toward new real estate development in Maui as relates to municipal wastewater disposal: the existing municipal systems are operating "over capacity," even with only the baseline loading of the resident population[1], so all development, including real estate development, should be placed in moratorium with the following criterion to resume in each Maui zip code:

1. Reuse is expanded to 100% current municipal wastewater reclamation plant flowrates
2. After completing #1, all new development must be supported by 100% reuse or some other wastewater disposal methods that are sane and sustainable.

What this means is that any new residential or visitor accommodations development that proposes to connect to any municipal system should only happen after 100% reuse is implemented on existing flows. Then, all new development shall be required to certify that new dedicated reuse projects can accommodate 100% of new raw sewage produced, 100% of the time. One exception: truly affordable housing is exempt. Then you will have the entire impetus to develop housing bifurcated into two legally allowable outlets:

1. truly affordable housing dedicated to sheltering and building wealth for existing resident working populations, or
2. high end housing that is truly sustainable.

Why is this important? Right now, because the County of Maui Department of Environmental Management has historically never made it a priority, there is no disinfection treatment step employed on injected municipal wastewater in South Maui, so fecal coliform levels in municipal effluent flowing into nearshore injection wells test above the detection limit of 2419.6 MPN CFU / 100 mL wastewater[2]. That means that the most probable number of fecal coliform cells in the unsterilized wastewater flowing through groundwater into the ocean in Kihei contains at least 2419.6 Colony Forming Units (CFU = a unit of pathogen cells with the capability to start an infection in a host organism, or "Infection Forming Unit") of fecal coliform. Fecal coliform is generally harmless, but it is routinely measured because it provides an indication of the potential for the

[1] Reef Power LLC Written Testimony on Visitor Accommodations Moratorium Part I - v2.0
[2] KIHEI UIC Permit, UM-1396 Type I - IV Testing Results - January 5, 2021

presence of other biological entities that can be pathogenic, or illness-causing, in persons who engage in recreation in nearshore waters within the injection well plume, such as Cove Park in Kihei. And please remember, in Kihei, every visitor who poops and pees into the municipal system has just internally transported an actual zoo of viruses and bacteria from all around the world, rendering the global jet travel system an extended physical mass transport system that routes disease-forming life forms inside visitors' bodies from all around the world, into the toilet and shower, through the sewer mains, through the wastewater reclamation facility where no disinfection is employed, through injection wells then groundwater, and finally into nearshore human recreation environments and reefs. One can add up the total time it takes a disease-forming lifeform living inside the bowels of a future Maui visitor from the other side of the world, to arriving in nearshore waters within the non-disinfected injection well plume in Kihei, to making a resident sick:

1. Visitor ground and air travel time from origin home residence, to Maui accommodations unit +
2. Time from first flush, time through sewer mains, time through wastewater reclamation facility +
3. Groundwater transit time for non-disinfected wastewater to migrate from injection well to reef +
4. Time of local resident swimming to render a Colony Forming Unit into an "Infection Forming Unit" +
5. Incubation time of the pathogen to allow for exponential pathogen cell division and illness or death.

Without disinfection of injected wastewater, it may not be very long before an infected person on the other side of the world leads to a sick local resident in Maui via non-disinfected municipal injection well discharges. This is a fundamental cognitive and design flaw, and 100% injectate disinfection must be implemented before a single new visitor accommodation flushes into the Kihei municipal wastewater reclamation system. The physical system as it exists presently embodies a deadly nexus of failed leadership, greed, incompetence and community apathy. As an immunocompromised sufferer of lower limb lymphedema, I have been hospitalized twice in the past decade with systemic bacterial cellulitis infections that laid me out on an IV antibiotic drip for weeks at Maui Memorial Hospital. Now I know the source of my near-death experiences: lack of sterilization of injected wastewater in South Maui where I was swimming. Now that I know about the absence of any disinfection treatment of injected municipal wastewater in South Maui, I don't know if I will elect to swim in nearshore waters within a few miles of Kalama Park, where the injection well plume is centered, until disinfection is implemented.

Below please find visualizations of this septic plume developed in a USGS publication by Hunt in 2007[3]. Since the fecal coliform tests performed for UIC permit reporting came in at above the detection limit of the test, we can look at a DOH source describing coliform counts for non-disinfected septic tank effluent to see the range that may actually exist in non-disinfected injected wastewater in Kihei: 40,000 to 160 MILLION CFU / 100 mL[4].

[3] Ground-Water Nutrient Flux to Coastal Waters and Numerical Simulation of Wastewater Injection at Kihei, Maui, Hawaii
[4] HI DOH Onsite Wastewater Treatment Survey and Assessment

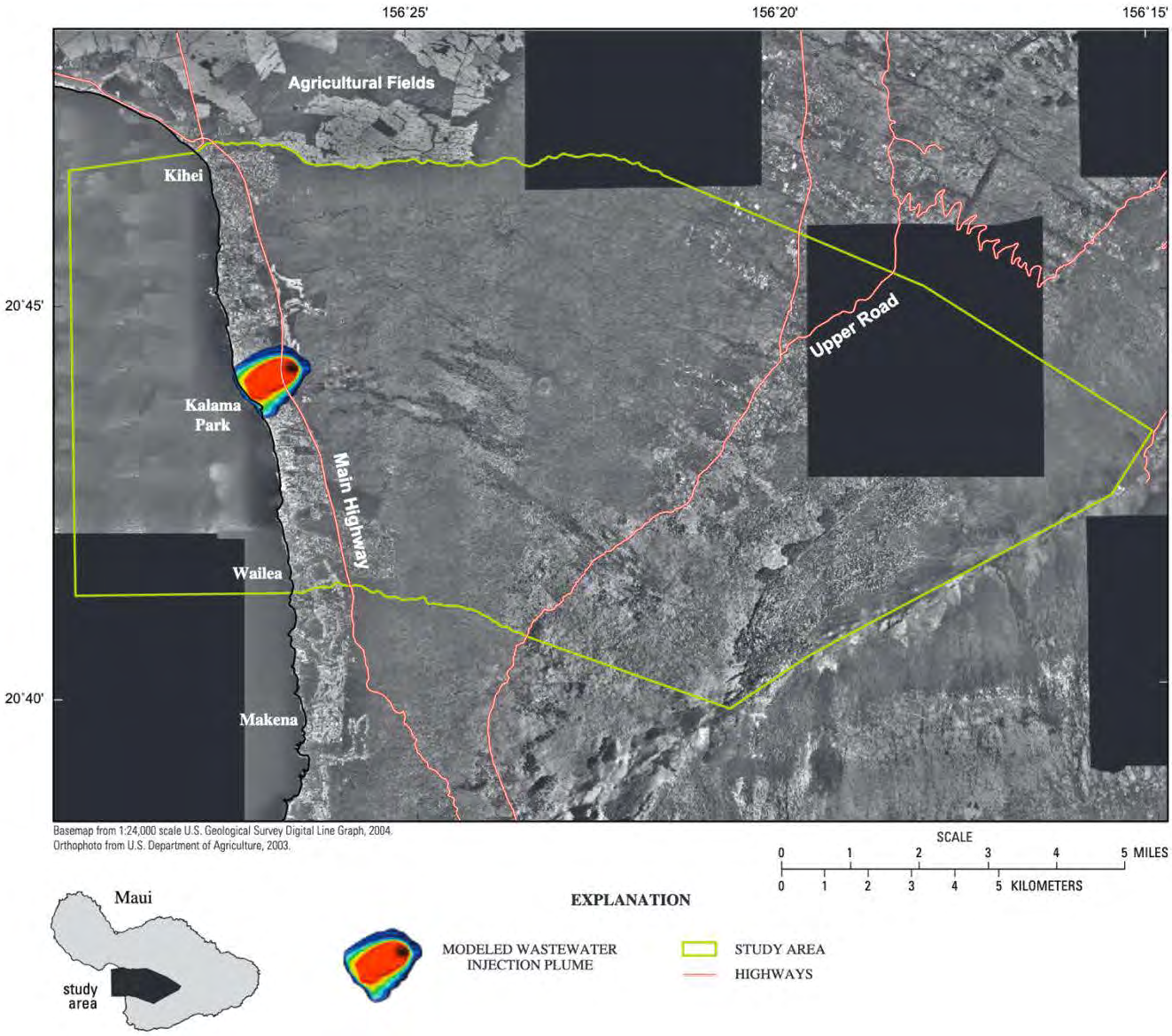



**Figure E1.** Aerial photomosaic showing the Kihei study area and injected wastewater effluent plume as estimated by numerical modeling, Kihei, Hawaii. The effluent plume is roughly a mile long and a mile wide (0.93 mi, or 1.5 km) and flows beneath the urban strip seaward of the main highway. Colors represent effluent concentration, from 100 percent effluent at the plume core to 5 percent effluent at the outer plume margin. The area inland of the highway is mostly dryland forest, with a few farms and rural homesteads along an upper road at 3,000 feet elevation.

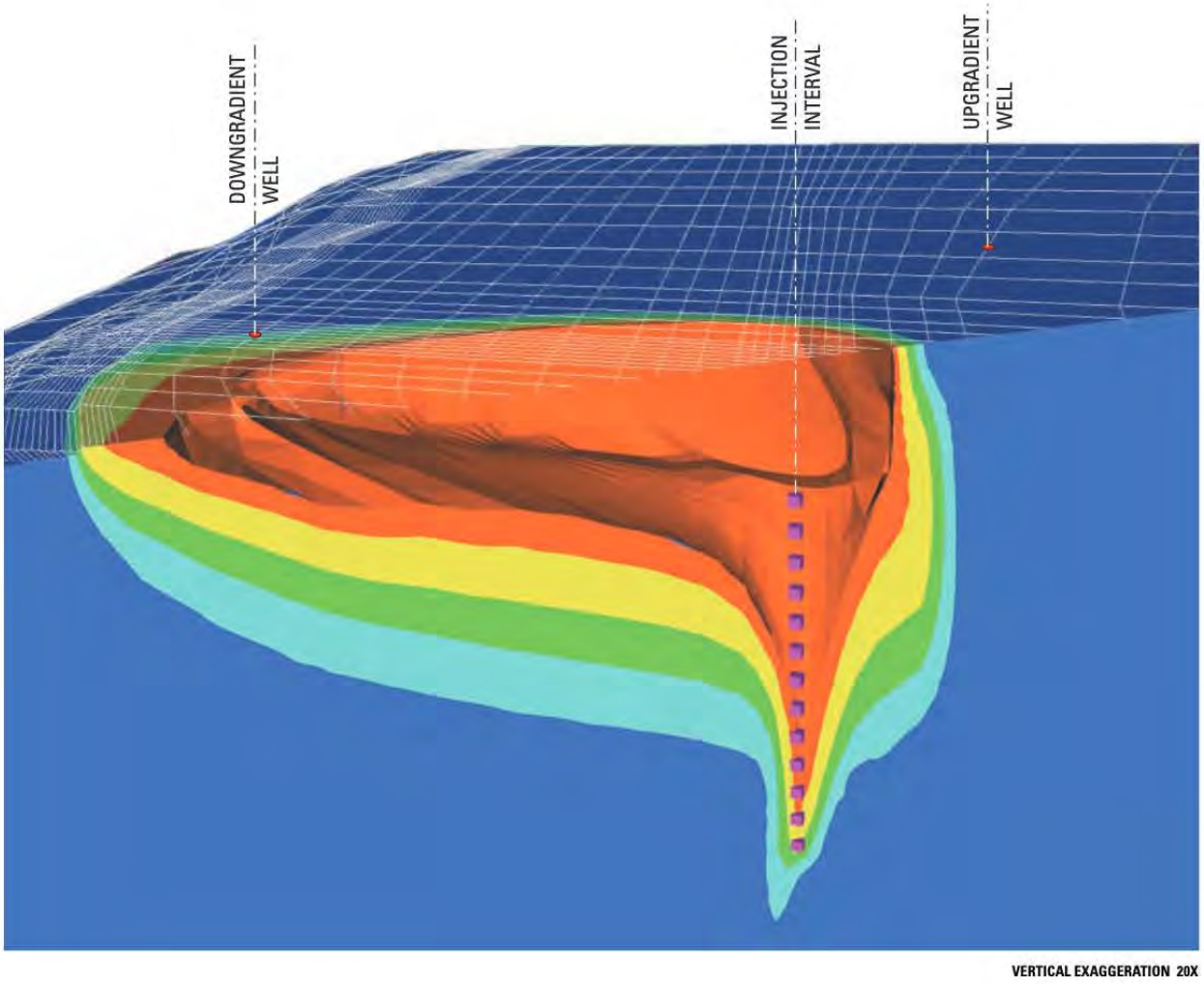



**Figure E3.** Cutaway block diagram showing the modeled injection plume, Kihei, Hawaii. View is to the northwest. The injection plume is visualized as effluent-tracer concentration, and the core of the plume is revealed by omitting concentrations greater than 90 percent. The small cubes are fluid-source nodes in the model that correspond to the open interval of the injection well. Injected effluent rises buoyantly, spreads out near the top of the aquifer, and flows to the coast; it also mixes with surrounding ground water, resulting in the gradation in effluent concentration shown.

The list of pathogen microbial species commonly found in non-disinfected wastewater is long and terrifying, shown in the U.S. NIH list below. COVID-19 is also found in non-disinfected wastewater[5].

*The major pathogens of concern in municipal wastewater and diseases or illness associated with them*[6]

| Name of pathogen | Major disease or symptoms |
|---|---|
| **Bacteria** | |
| Campylobacter jejuni | Gastroenteritis |
| Escherichia coli | Gastroenteritis |
| Salmonella spp. | Salmonellosis, typhoid, paratyphoid |
| Shigella spp. | Bacillary dysentery |
| Vibrio cholerae | Cholera |
| Yersinia spp. | Gastroenteritis |
| **Viruses** | |
| Adenovirus | Upper respiratory infection and gastroenteritis |
| Astrovirus | Gastroenteritis |
| Coxsackie virus | Meningitis, pneumonia, fever |
| Echovirus | Meningitis, paralysis, encephalitis, fever |
| Hepatitis A virus | Infectious hepatitis |
| Hepatitis E virus | Infectious hepatitis, miscarriage, and death |
| Human calicivirus | Epidemic gastroenteritis with severe diarrhea |
| Polio virus | Poliomyelitis |
| Reovirus | Respiratory infections, gastroenteritis |
| Rotavirus | Acute gastroenteritis with severe diarrhea |
| TT hepatitis | Hepatitis |
| **Protozoa** | |
| Balantidium coli | Balantidiasis |
| Cryptosporidium spp. | Cryptosporidiosis |
| Entamoeba histolytica | Acute amoebic dysentery |
| Giardia duodenalis | Giardiasis |
| Toxoplasma gondii | Toxoplasmosis |
| **Helminths** | |
| Ascaris lumbricoides | Ascariosis |
| Ascaris suum | Coughing and chest pain |
| Hymenolepis nana | Hymenolepiasis |
| Necator americanus | Hookworm disease |
| Taenia saginata | Insomnia, anorexia |
| Taenia solium | Insomnia, anorexia |
| Toxocara canis | Fever, abdominal pain, muscle ache |
| Trichuris trichiura | Diarrhea, anemia, weight loss |

[5] Sewage poses potential COVID-19 transmission risk, experts warn

[6] Pathogen and Particle Associations in Wastewater - Significance and Implications for Treatment and Disinfection Processes

You may have noticed tumors on the faces and bodies of sea turtles in Maui. *Kihei, Maui, has been called a "ground zero" for fibropapillomatosis, the disease that is caused by a herpes virus and manifests as tumors in turtles*[7]. The virus is injected into the environment, and the ingestion by green sea turtles of invasive ocean algae, fed by excess nitrogen found in high concentrations in injected wastewater in Kihei[2], causes the unchecked growth of the tumors, a leading cause of death of the endangered species.

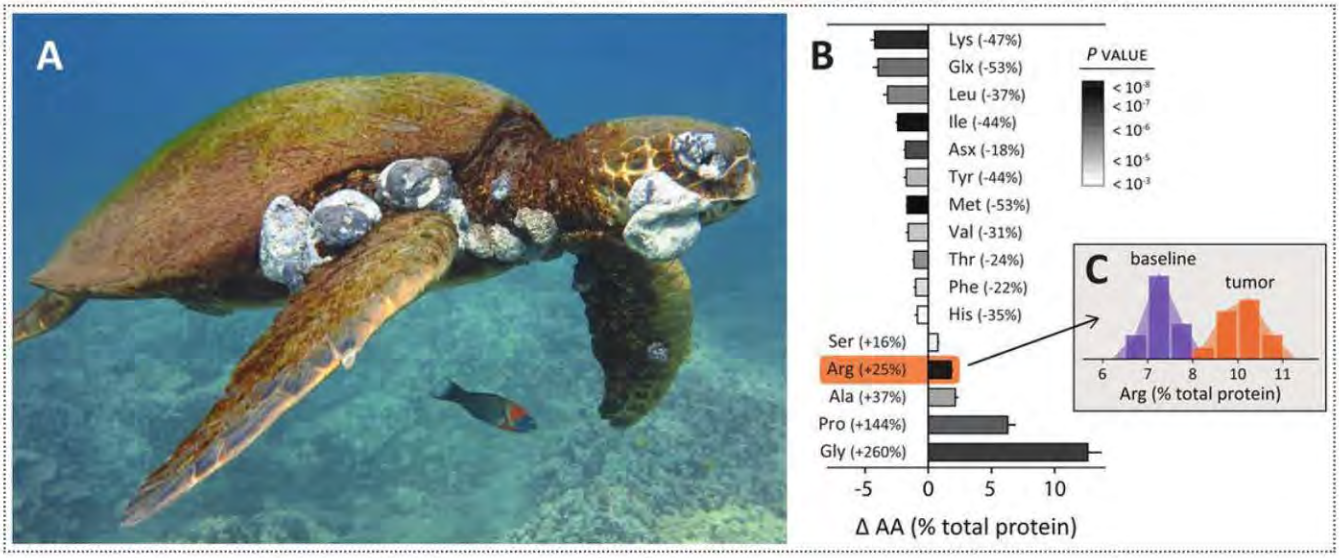



**Figure 1:** (A) Juvenile green turtle (*Chelonia mydas*) severely afflicted with fibropapillomatosis, a tumor-forming disease associated with *α*-herpesviruses. Photo: August 2012 Makena, Maui (credit: Chris Stankis, Flickr/Bluewavechris). (B) Amino acid profiles from turtle tissues show fibropapilloma tumors are notably enriched in glycine, proline and arginine, and depleted in lysine. Glycine is a known tumor biomarker; proline aids herpesvirus infections; and arginine and lysine promote and inhibit herpesviruses, respectively. Bars represent the average difference between tumor and baseline tissue for 12 individual turtles, percent changes from baseline percent total protein listed in parentheses, error bars are SEM. Bar color indicates *P* values from two-tailed paired *t*-tests. (C) Underlying histograms for arginine content in baseline and tumor tissue samples, bars are raw values, curves are smoothed trend.

[7] Eutrophication and the dietary promotion of sea turtle tumors

Linking the expiration of a legislated moratorium on new visitor and luxury housing units, to the implementation of solutions to wastewater goals, such as disinfection and 100% reuse for municipal wastewater, is a clever way to domesticate the "wild stallion" of capitalism and profits, to pull the "cart" of quality of life, to realize expensive but absolutely essential outcomes, to preserve the collective sense of place that drives the very demand at the root of pressure to develop.

My journey on the path to realize improvements in wastewater management goes back to the year 1984, when 8-year-old Travis became so sick from non-disinfected wastewater that he felt like his fingers would fall off due to skin infections. What started as eczema evolved into severe impetigo. After some investigation, we learned through a dye test that my uncle's septic tank was flowing directly into the stream I played in. Then we found that the mobile home park upstream on the Mississenewa River was discharging their primary treated wastewater directly into the river that the stream flowed into at the corner of our lot. I was so sick that we had to sell the house that my parents had built by themselves with their own two hands, and our entire family of 6 had to move to a new home. That essential trauma of total and complete, 100% loss of place, drives me to this day. There is no better community than Maui. I want to do everything in my power to protect you from the trauma I suffer, the trauma of loss of place, because once you lose it, it is difficult or impossible to get it back within a single lifetime. The limit to one's sense of loss of place can go all the way to 100%, and dramatic action is needed to arrest and reverse the process in Maui. New visitor accommodation ***and housing real estate*** development should resume only when 100% municipal wastewater reuse is achieved in a given zip code, and then only when new reuse projects are developed proportionally to any new system flow. The only exception to this moratorium should be truly affordable housing earmarked for existing resident workforce populations. By linking limits on development to wastewater management goals, you will unleash the momentum of the real estate development market to push forward the solutions to two difficult community problems -- affordable housing and injection wells -- with the full force of the industry.

In closing, I will refer to the below partial list of downstream species found in nearshore waters in Ma'alaea Bay, where non-disinfected wastewater flows 24/7. *Each year, tens of thousands of whales travel thousands of miles from their summer feeding grounds to winter breeding grounds. Hawaii, and most abundantly the shallow waters between Molokai, Lanai, Kahoolawe and Maui, is the largest breeding ground for North Pacific whales, most of whom are coming from the northwest coast of North America*[8].

The system we have in place is a global jet travel industry transporting disease-forming pathogens from around the world inside visitors, into the toilets of Kihei, then the County of Maui DEM collecting and injecting it without disinfection into the world's most important humpback whale calving waters. With disinfection and 100% reuse, we can heal our waters and return to a sane world in which further visitor and luxury housing accommodations make sense. We do not presently live in such a world and it will take a concerted human effort across all levels of Maui society to prevent a total loss of sense of place, by residents and visitors alike.

Mahalo for your attention!

Sincerely,
Travis Liggett
President, Reef Power LLC
www.reefpowermaui.com

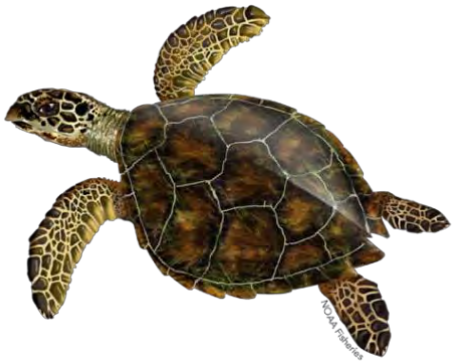
[8] Humpback Migration to Hawaiian Breeding Grounds

Humpback Whale
"kuapio kohola"
*Megaptera novaeangliae*

Blacktip Reef Shark
"mano pa'ele"
*Carcharhinus melanopterus*

Whitetip Reef Shark
"mano lalakea"
*Triaenodon obesus*

Hawksbill Sea Turtle
"honu'ea"
*Eretmochelys imbricata*



Green Sea Turtle
"honu"
*Chelonia mydas*

Night Octopus
"he'e"
*Callistoctopus ornatus*

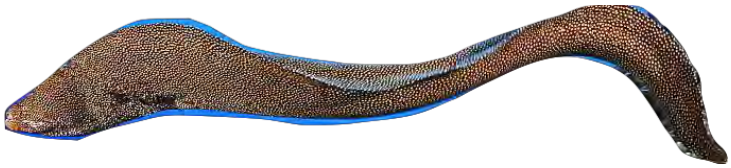
Day Octopus
"he'e-mākoko"
*Octopus cyanea*

Broad Stingray
"lupe"
*Dasyatis lata*

Manta Ray
"hahalua"
*Mobula alfredi*

Hawaiian Monk Seal
"llio-holo-i-ka-uaua"
*Neomonachus schauinslandi*

Turkey Moray
"puhi ‘oni’o"
*Gymnothorax meleagris*

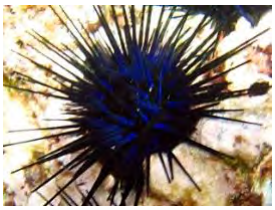


Yellow-edged Moray
"puhi paka"
*Gymnothorax flavimarginatus*

Rice Coral
"ko’a"
*Montipora capitata*

Hawaiian Blackfoot Limpet
"‘opihi"
*Cellana exarata*

Blue-Black Urchin
"wana"
*Echinothrix diadema*



Yellow Tang
"lau'ipala"
*Zebrasoma flavescens*


Bullethead Parrotfish
"uhu"
*Chlorurus sordidus*


Reef Trigger Fish
"humuhumunukunukuapua'a"
*Rhinecanthus rectangulus*

Arc-eye Hawkfish
"piliko'a"
*Paracirrhites arcatus*

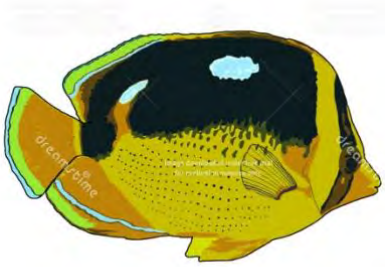
Hawaiian Damselfish
"'alo'ilo'i"
*Dascyllus albisella*

Moorish Idol
"kihikihi"
*Zanclus cornutus*

Raccoon Butterflyfish
"kīkākapu"
*Chaetodon lunula*

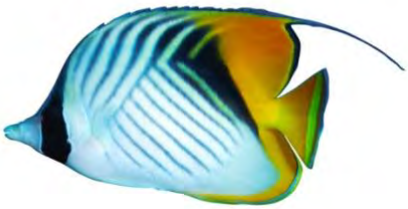

Ornate Butterflyfish
"kīkākapu"
*Chaetodon ornatissimus*

Fourspot Butterflyfish
"lauhau"
*Chaetodon quadrimaculatus*



Millet Butterflyfish
"lau wiliwili"
*Chaetodon miliaris*

Threadfin Butterflyfish
"kikakapu"
*Chaetodon auriga*

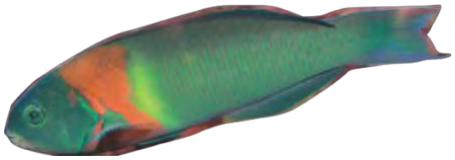


Yellow Longnose Butterflyfish
"lau-wiliwili-nukunuku'oi'oi"
*Forcipiger flavissimus*

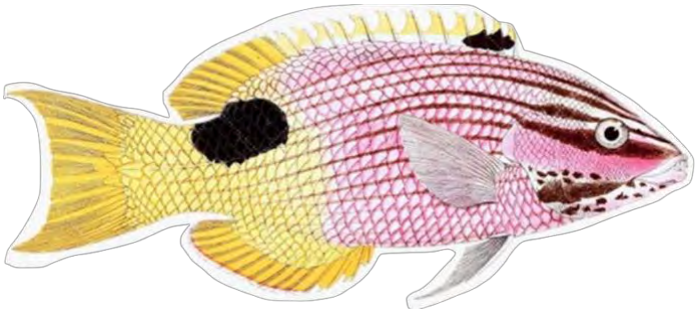
Hawaiian Whitespotted Toby
*Canthigaster jactator*

Achilles Tang
"paku'iku'i"
*Acanthurus achilles*

Saddle Wrasse
"hinalea lau-wili"
*Thalassoma duperrey*



Tarry Hogfish
"'a'awa"
*Bodianus bilunulatus*



Orange Band Surgeonfish
"na'ena'e"
*Acanthurus olivaceus*

Bluespine Unicornfish
"kala"
*Naso unicornis*

Pacific Orangespine Unicornfish
"umaumalei"
*Naso lituratus*

Black Triggerfish
"humuhumu ele ele"
*Melichthys niger*


Hawaiian Squirrelfish
"'ala'ihi"
*Sargocentron xantherythrum*


Bluefin Trevally
"'omilu"
*Caranx melampygus*

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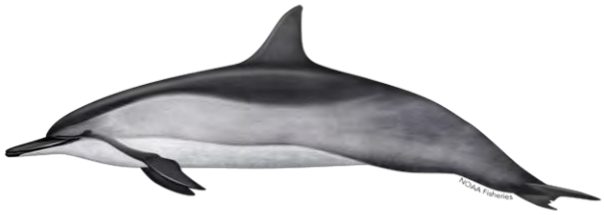

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*Polydactylus plebeius*

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"limu manauea"
*Gracilaria coronopifolia*

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"limu ele‘ele"
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Red Sea Plume (edible)
"limu kohu"
*Asparagopsis taxiformis*

red marine macroalgae (edible)
"limu huluhuluwaena"
*Grateloupia filicina*

Sea Lettuce (edible)
"limu palahalaha"
*Ulva fasciata*

Prickly Sargassum (edible)
"limu kala"
*Sargassum echinocarpum*

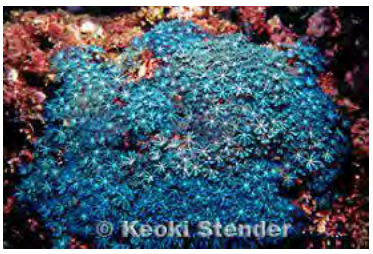
marine macroalgae (edible)
"limu lipoa"
*Dictyopteris plagiogramma*

Mushroom Coral
"Ako ako a kohe"
*Lobactis scutaria*

Lace Coral
*Pocillopora damicornis*

Cauliflower Coral
*Pocillopora meandrina*

Blue Soft Coral
"Hawaiian blue octocoral"
*Sarcothelia edmondsoni*




Lobe Coral
"pohaku puna"
*Porites lobata*

Stony Coral
"ako`ako`a"
*Porites evermanni*

Finger Coral
"pohaku puna"
*Porites compressa*

Knobby Finger Coral
*Porites duerdeni*

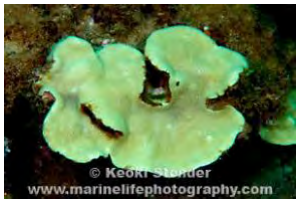
Brigham's Coral
*Porites brighami*

Solid Coral
*Porites solida*

Plate & Knob Coral
*Porites monticulosa*

Plate & Pillar Coral
*Porites rus*


*Lichen Coral*
*Porites lichen*




Hawaiian Porties
*Porites hawaiiensis*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