

## GET Committee

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**From:** kenmeadeconifer@everyactioncustom.com on behalf of ken meade  
<kenmeadeconifer@everyactioncustom.com>  
**Sent:** Monday, May 20, 2019 3:38 AM  
**To:** GET Committee  
**Subject:** Please settle the Lahaina Injections Wells case

Dear Maui County GET Committee,

I support the Council seeking to settle the Lahaina Injection Well case (HAWAII WILDLIFE FUND, ET AL. V. COUNTY OF MAUI, RELATING TO THE CLEAN WATER ACT) as per CC 19-225,

The County of Maui should not be spending money attempting to gut the Clean Water Act. Instead, the money should be spent ensuring no pollutants reach the ocean from our wastewater facilities.

Sincerely,  
ken meade  
465 Huelo Rd Haiku, HI 96708-5721  
kenmeadeconifer@gmail.com

## GET Committee

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**From:** impervious12@everyactioncustom.com on behalf of Dezireen Austin <impervious12@everyactioncustom.com>  
**Sent:** Monday, May 20, 2019 5:39 AM  
**To:** GET Committee  
**Subject:** Please settle the Lahaina Injections Wells case

Dear Maui County GET Committee,

It is absolutely horrifying that anyone would think that they should have the choice to poison our waters with pollutants, due to their lack of foresight, planning and/or intelligent reasoning.

I support the Council seeking to settle the Lahaina Injection Well case (HAWAII WILDLIFE FUND, ET AL. V. COUNTY OF MAUI, RELATING TO THE CLEAN WATER ACT) as per CC 19-225,

The County of Maui should not be spending money attempting to gut the Clean Water Act. Instead, the money should be spent ensuring no pollutants reach the ocean from our wastewater facilities.

Sincerely,  
Dezireen Austin  
365 Hale Kai St Kihei, HI 96753-7006  
impervious12@hotmail.com

## GET Committee

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**From:** travis liggett <travis.liggett@gmail.com>  
**Sent:** Monday, May 20, 2019 12:00 AM  
**To:** GET Committee  
**Subject:** GET Committee May 20 2019 written testimony  
**Attachments:** Travis Liggett GET testimony May 20 2019.pdf

Attached please find my written testimony to the County Council GET Committee meeting on May 20, 2019, concerning the injection well lawsuit.

Mahalo,  
Travis Liggett  
Reef Power LLC  
(808) 291-9934

Maui County Council: Governance, Ethics and Transparency Committee testimony, 5/20/19

Aloha, my name is Travis Liggett I am appearing before you today as a concerned resident and also representing my small business, Reef Power LLC, a Maui company dedicated to restoring reefs. I am testifying to encourage the Council to accept the injection well settlement and abandon the Supreme Court appeal, because there is a solution. Please consider the 3-part plan I have developed as an alternative to wastewater injection wells:

1. Implement conventional treatment upgrades, such as Enhanced Nutrient Removal, as recommended to the County Council by Steve Parabolicoli in November 2018;
2. Polish the wastewater to very low nutrient levels using freshwater limu (native Hawaiian algae) in an Algal Turf Scrubber. The Algal Turf Scrubber is a natural regenerative system that grows native algae by the acre to consume pollutants in the wastewater stream; and
3. Achieve 100% reuse in a short timescale by irrigating with polished wastewater a multi-acre forest that is planted with native Hawaiian trees such as 'Ohi'a and Sandalwood, and vetiver, next to the wastewater facility.

What's great timing is that there is a US Department of Energy funding opportunity open *\*right now\** that could pay to demonstrate key elements of my plan. I am collaborating with researchers from the Smithsonian Institution and Sandia National Lab, and a private company called Hydromentia that builds Turf Scrubbers. They are keen on testing Turf Scrubbers in Hawaii, and we believe that, with the County's partnership, we can win this grant to demonstrate the limu solution to injection wells.

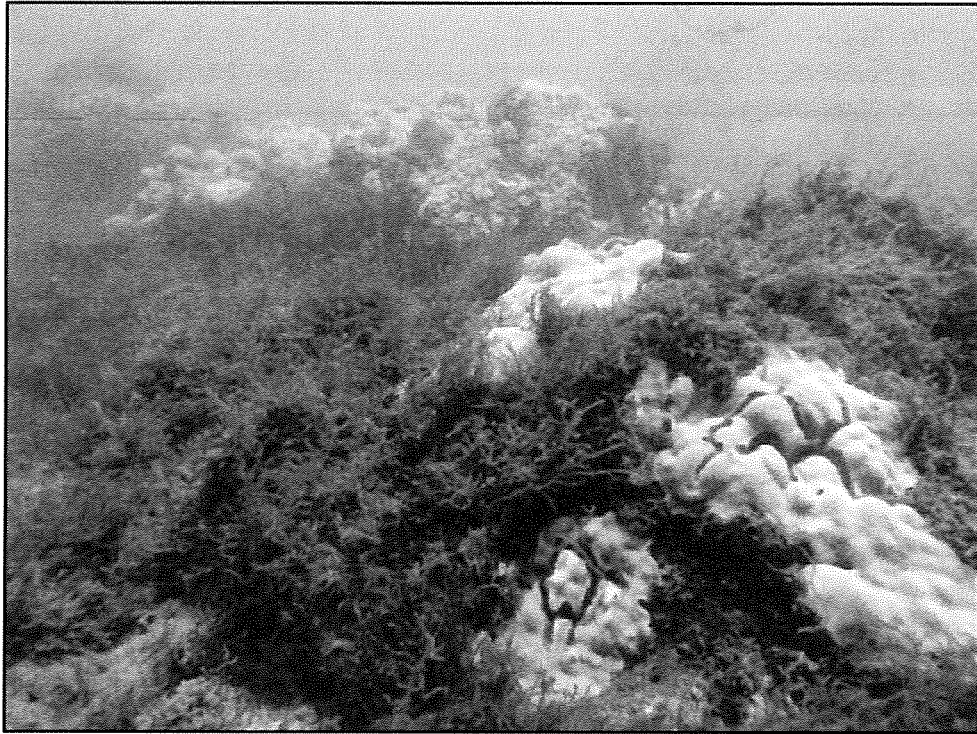
But time is of the essence. The first submission calling for a project summary, including naming partners, is due June 3rd, with the full proposal due July 22nd. To that end I have a meeting scheduled next Tuesday, May 28th, with Tyson Miyake, the Mayor's Deputy Managing Director, and Makale'a Ane, Environmental Coordinator. With the swift cooperation of the Mayor's office, we can partner in the first grant application deadline on June 3rd, and easily meet the final proposal deadline in July, to win this Department Of Energy grant and demonstrate a native limu-based alternative to injection.

Please settle the lawsuit now and innovate instead of appealing. Mahalo for your attention and have a nice day! Sincerely, Travis A. Liggett (808) 291-9934

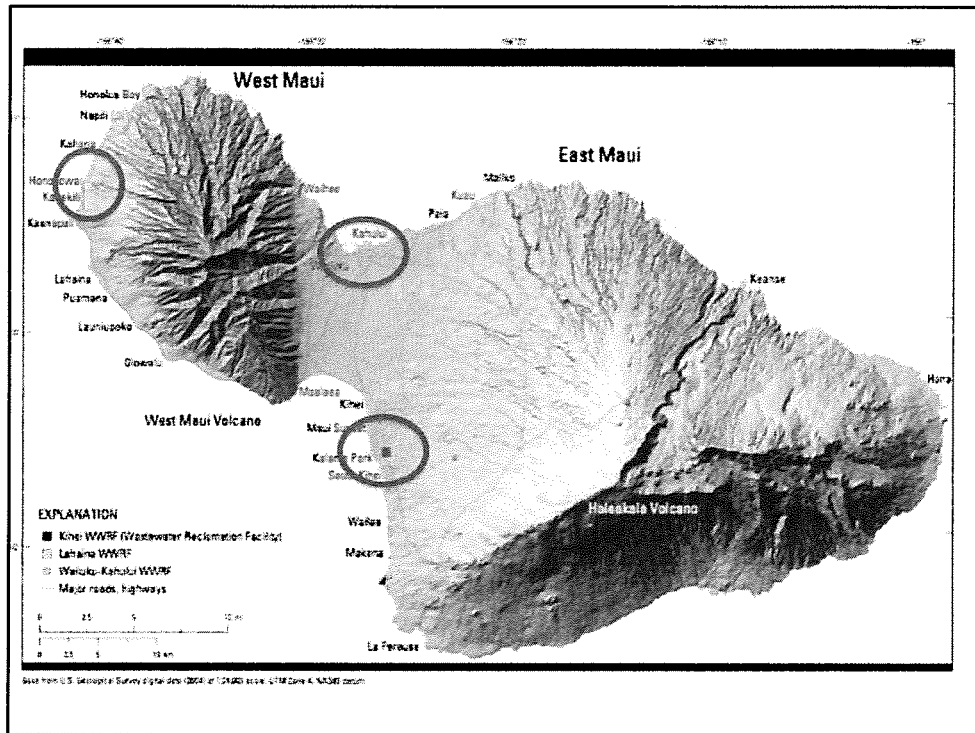
*The Department of Energy grant opportunity information:*

*"Fiscal Year 2019 Bioenergy Technologies Office Multi-Topic Funding Opportunity Announcement"*

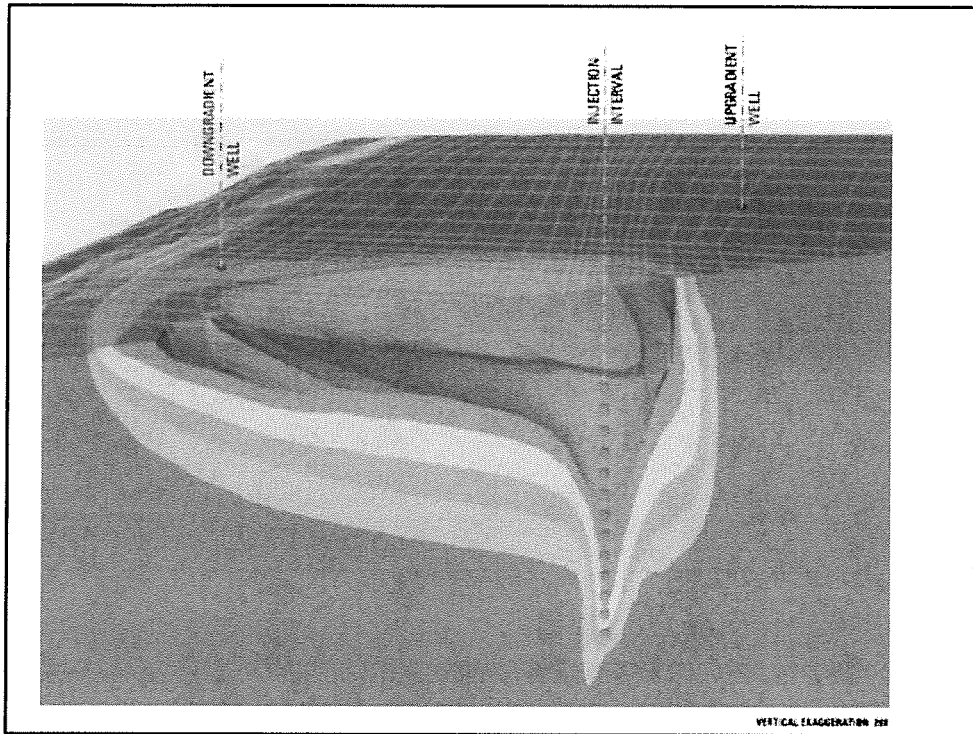
*<https://eere-exchange.energy.gov/default.aspx#Foald912d0039-68a7-4073-8983-2a6eb5c7cf38>*



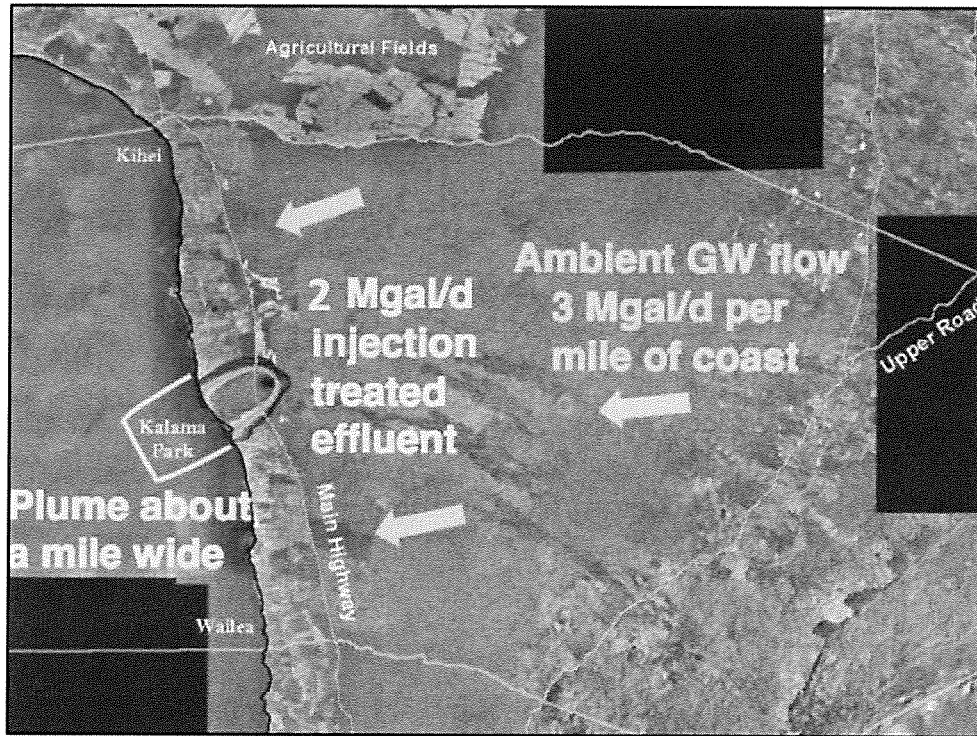
Aloha, may I have your attention? Maui's reefs are in trouble! Pollutant loading on the oceans is causing harmful algae blooms and major reef degradation in Maui's nearshore waters.



There are three main municipal wastewater treatment facilities that dispose of over 13 million gallons of wastewater per day, contributing to nutrient loading and the degradation of the reefs.

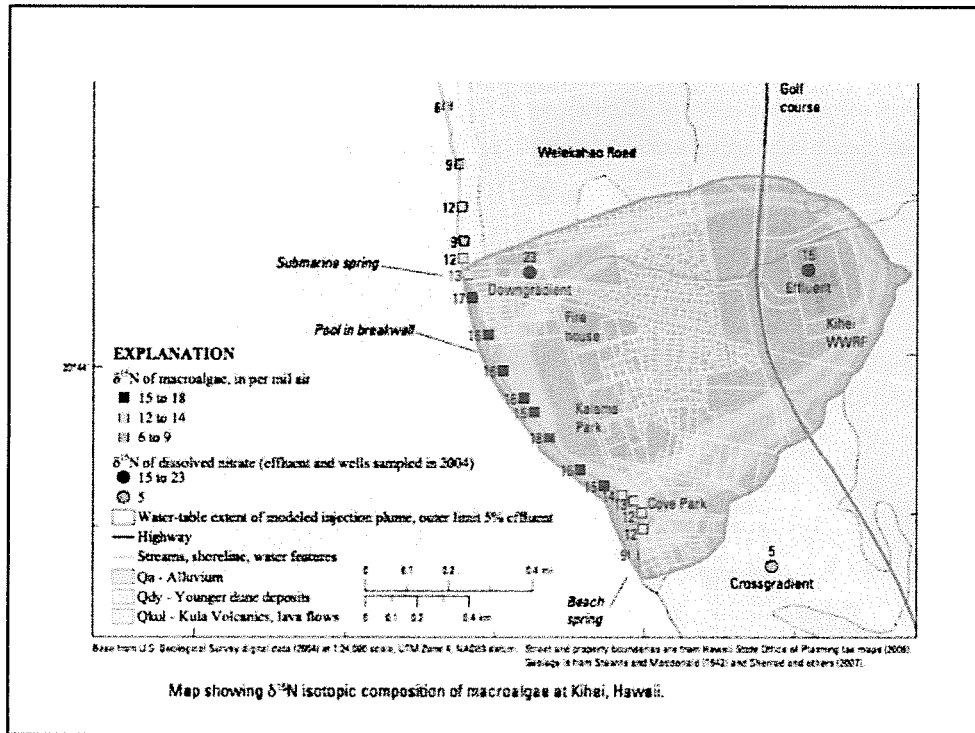


Most of the partially treated wastewater is disposed of using injection wells that deposit the water into the ground not far from shore. The wastewater forms a buoyant plume that spreads out in the groundwater and eventually makes its way to the ocean. The wastewater contains a lot of dissolved nutrients such as nitrogen and phosphorous which cause harmful algae blooms in the ocean.

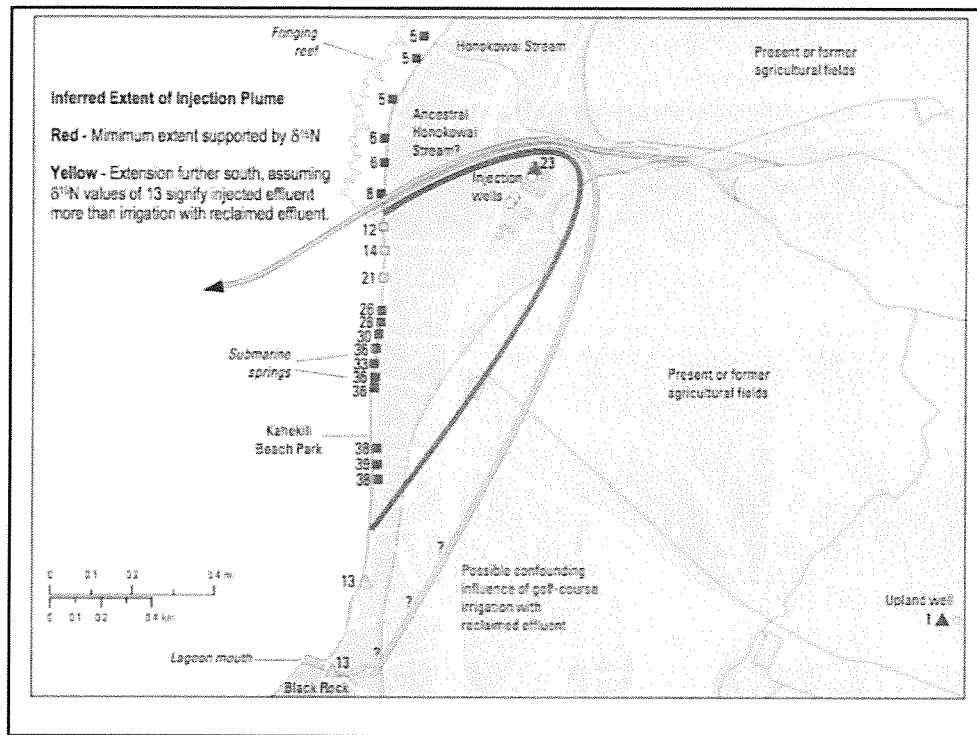


In Kihei, the plume is about a mile wide and is centered around Kalama Park.



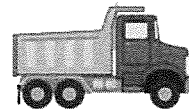
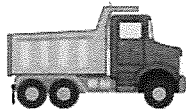
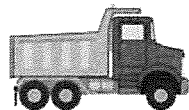
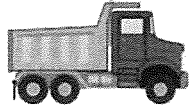


Increases of a certain type of nitrogen associated with human waste has been observed in the tissue of algae found in nearshore waters along the plume boundary in Kihei.



Similarly in Lahaina, a wastewater plume exits into the ocean along Kahekili Beach near Blackrock.

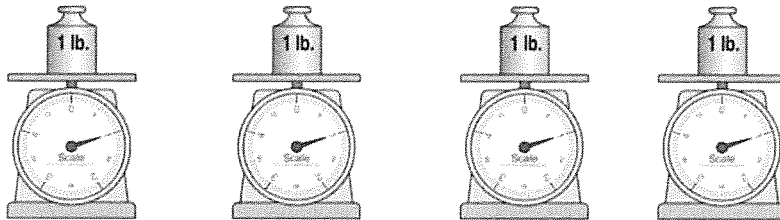
317,000 lbs nutrients = 14 dump trucks full  
into the ocean  
yearly



travis.iggott@gmail.com

In all, the county of Maui dumps over 300,000 pounds of nutrients into nearshore injection wells per year. That's like dumping 14 XL dump trucks of fertilizer into the ocean every year.

Kahului / Kihei / Lahaina averages  
4 lbs nutrients into the ocean  
per person every year



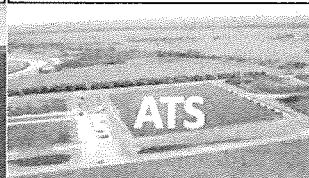
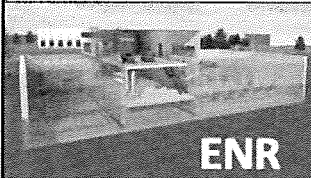
On average, this is the equivalent to every person on the municipal wastewater system dumping a 4 pound bag of fertilizer into the ocean every year. We can do better!

## 3 steps to eliminate injection wells

1. Upgrade/Install best-available conventional WW treatment such as Bardenpho or Enhanced Nutrient Removal to reduce concentrations to 3.0 mg N/L  
0.3 mg P/L

2. Deploy Algal Turf Scrubbers at scale as a post-conventional treatment polishing step to reduce nutrient concentrations to ocean background levels

3. Implement unrestricted 100% reuse of polished water for irrigation of sediment controlling plants and native forests strategically and at scale in the watershed to reduce Total Suspended Solids loading in stormwater runoff



The solution to municipal injection wells has three steps:

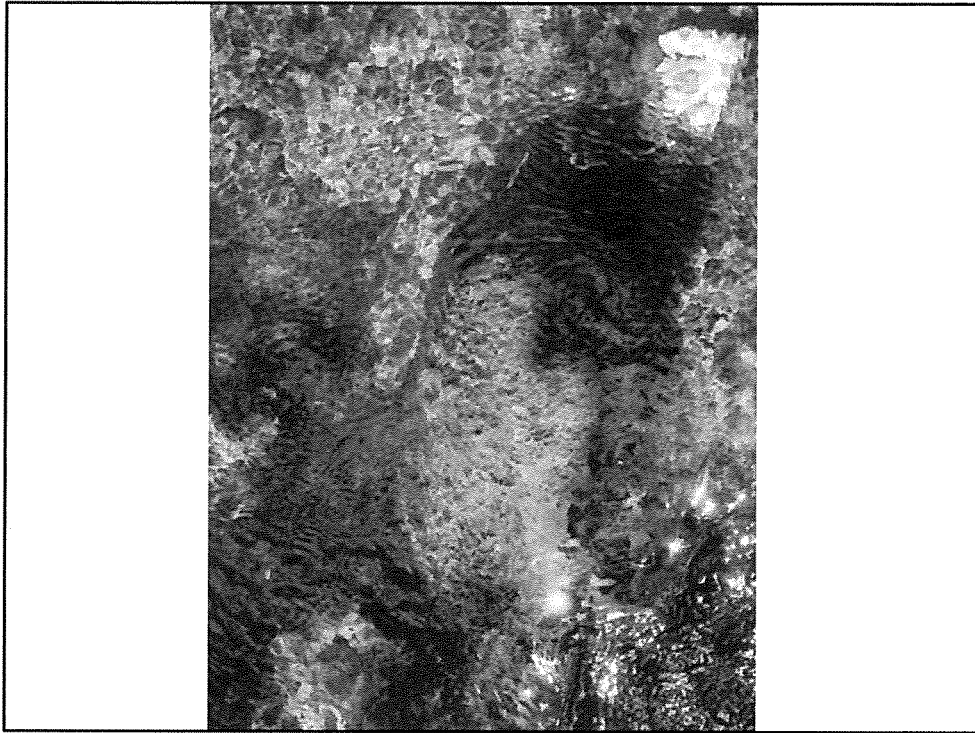
1. Improve conventional treatment
2. Implement an Algal Turf Scrubber polishing step
3. Grow a forest of eco-restorative plants next to the wastewater facility.



One way to think about a solution to our nutrient problem is to look at how Maui's streams cleanse themselves of excess nutrients before reaching the ocean, and the answer is *limu*, which is the Hawaiian word for algae. Most people think of saltwater ocean seaweed when they think of limu, but there are many species that grow on freshwater too.



Native Hawaiian limu can be found in many unspoiled streams in East Maui, such as this stream in the Waiohue Watershed.

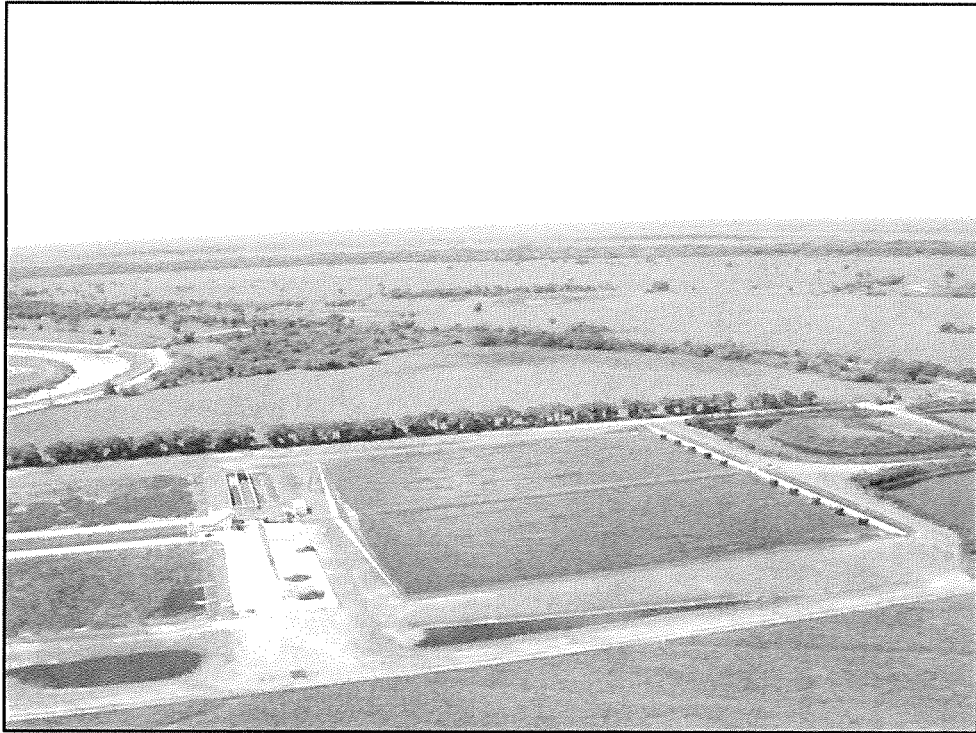


There is a symmetry between the freshwater limu in the streams and the saltwater limu in the ocean – maybe if the freshwater limu could do their job on the wastewater, we could have less harmful algae blooms downstream in the ocean?

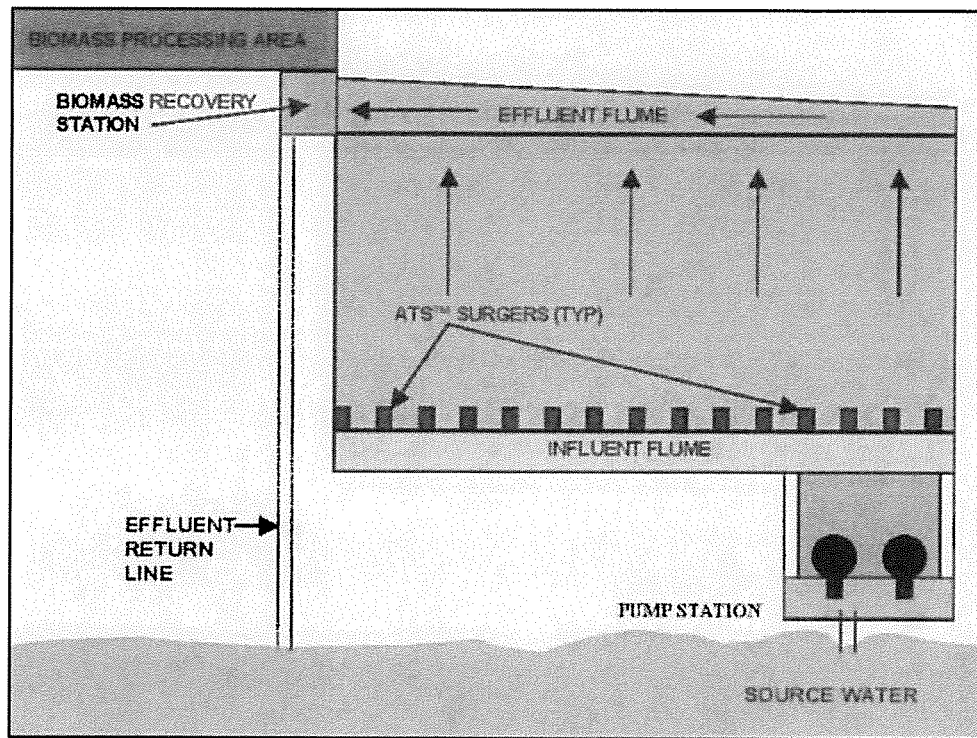




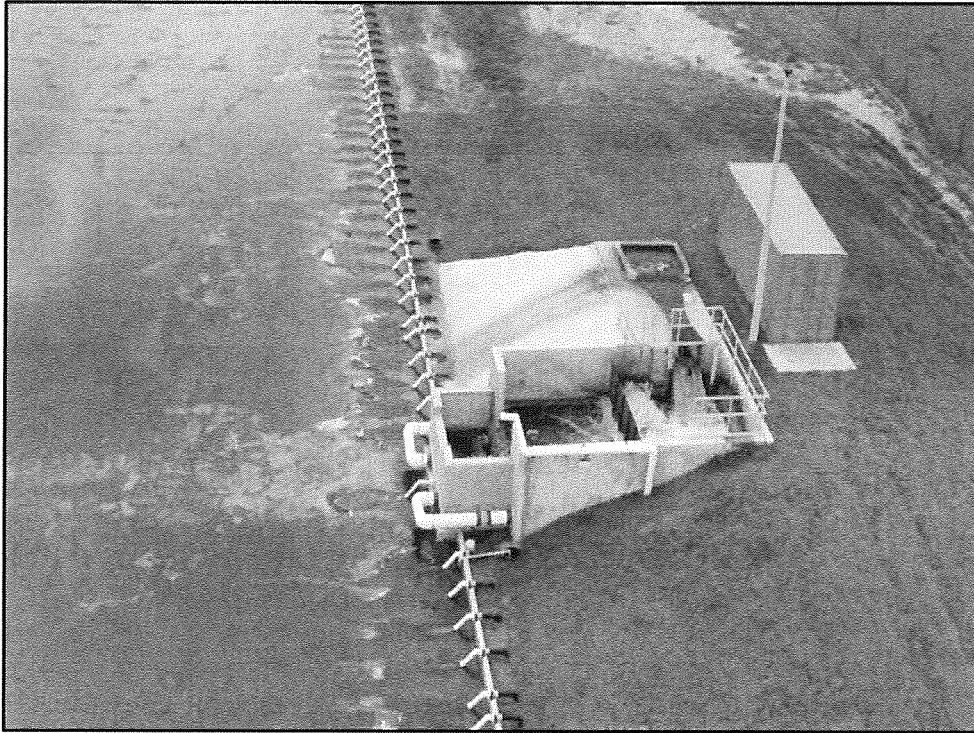
There is a regenerative natural system called Algal Turf Scrubbers that could fix the problem. Algae is grown in long flowways with algae attached to a mesh with water caused to flow over it in pulses.



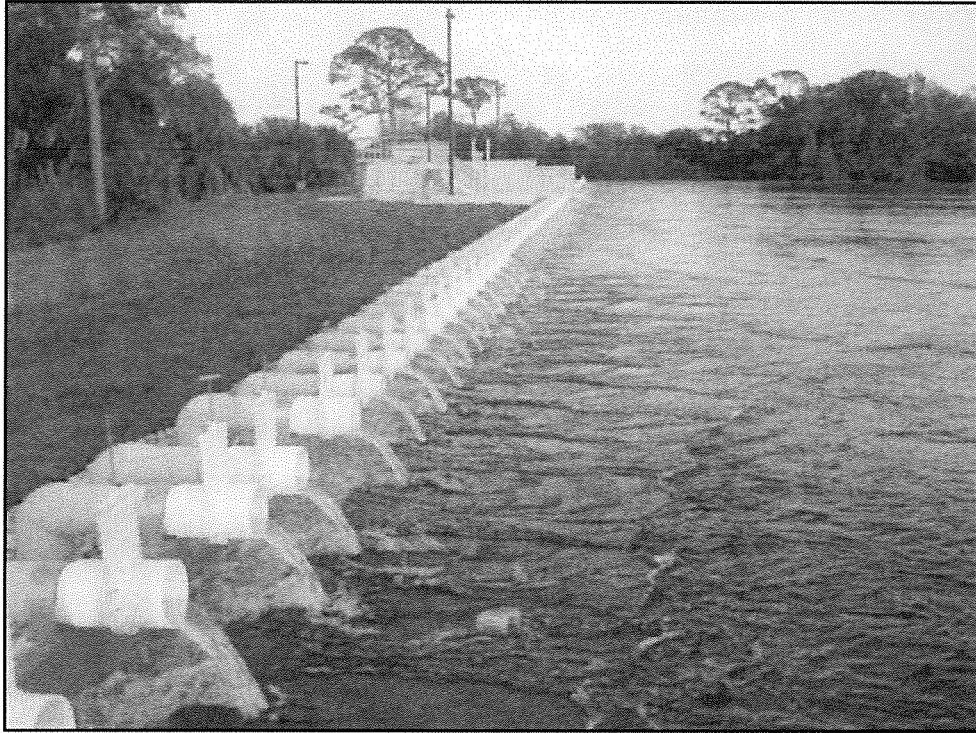
A full scale system on Maui might look similar to this scaled ATS system tested in Florida.



Water is pulsed across the surface of the algae to remove nutrients, increase dissolved oxygen and increase pH to decrease acidity.

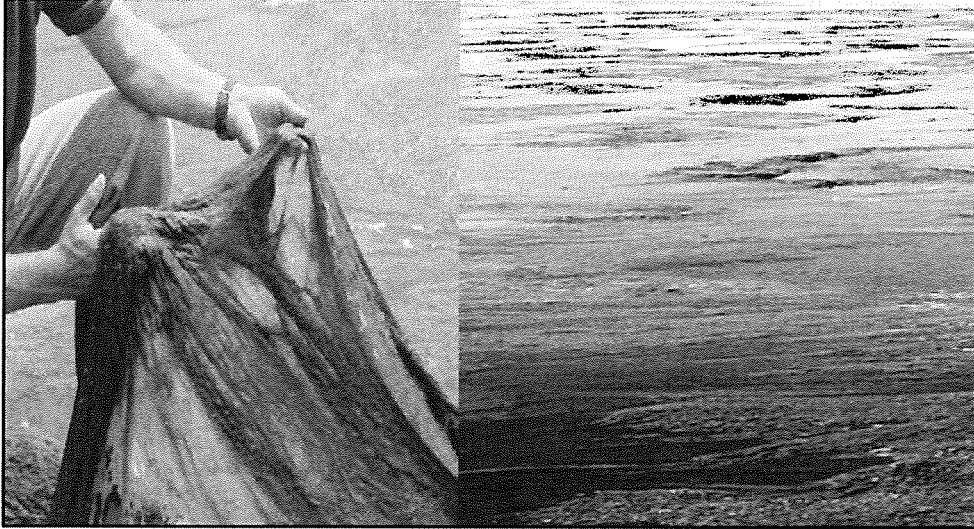


Water surgers mix and feed the algae, and support the process of the limu consuming the pollutants and incorporating them into their tissue. Many millions of gallons per day can be treated in a multi-acre system. The water flows through sloping channels as it passes across the algae.

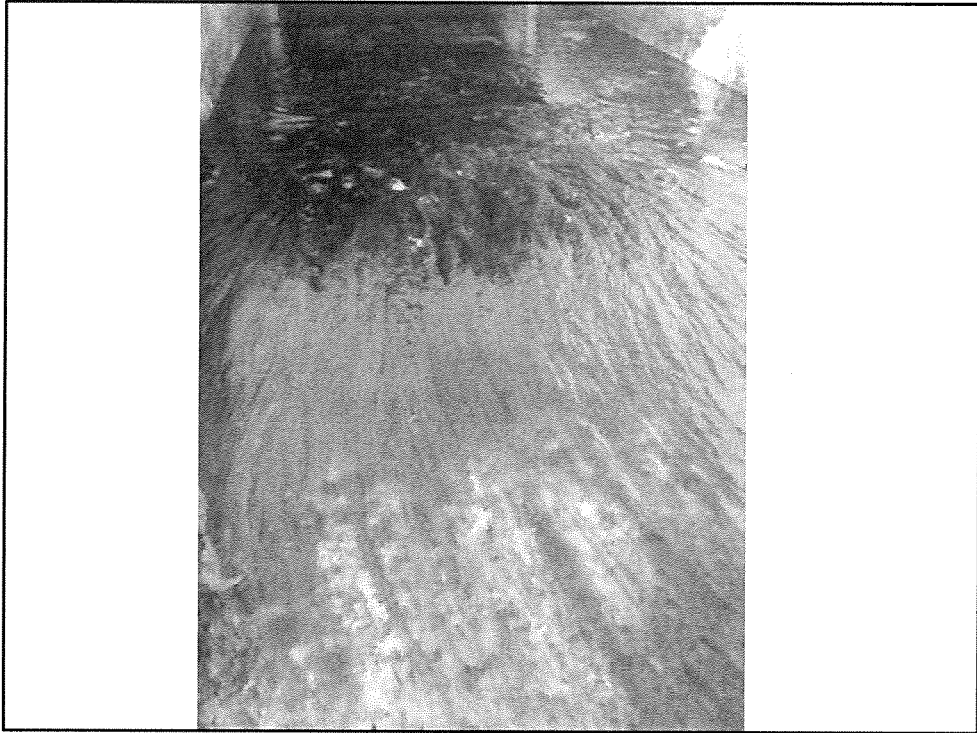


The system is in essence a manufactured stream, providing the ideal growing conditions for the limu that mimics the churning water conditions of the streams where the algae grow and clean water naturally. So an ATS does what nature does, it puts a stream full of algae between a nutrient source and the landscape. The algae are harvested periodically to remove the pollutants from the wastewater stream. The algae then grow back from the cells that remain and the cycle repeats.

# Algal turfs

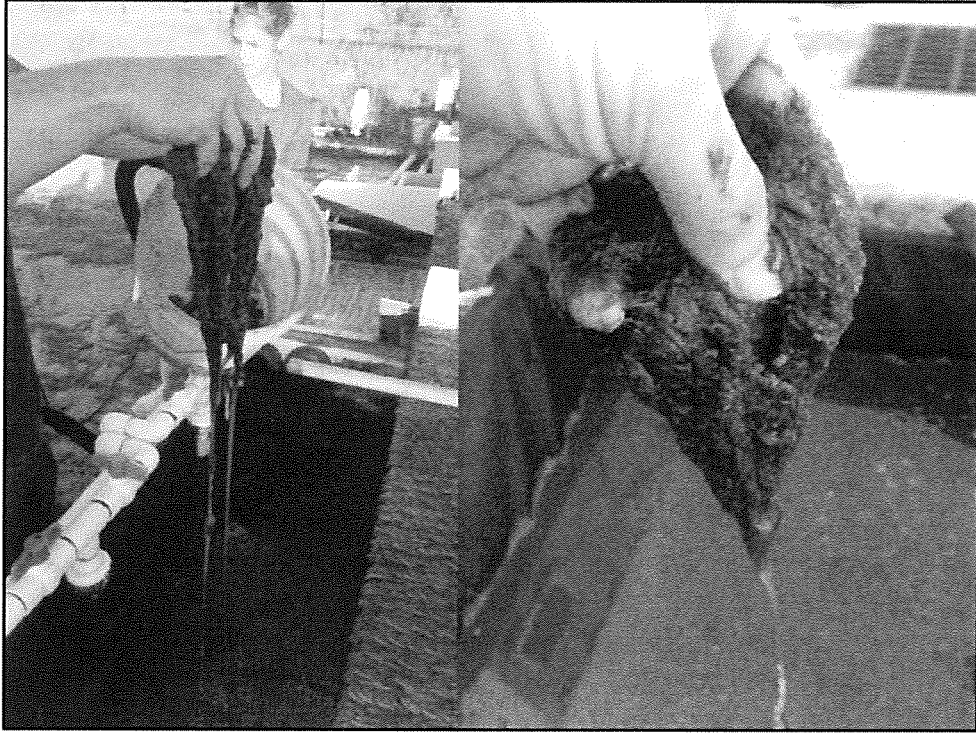


Algal turfs are actually diverse microcosms of many species of algae and other life, including macro algae and microalgae (such as diatoms), and invertebrates.



The algae grow quickly and are vibrant in color.





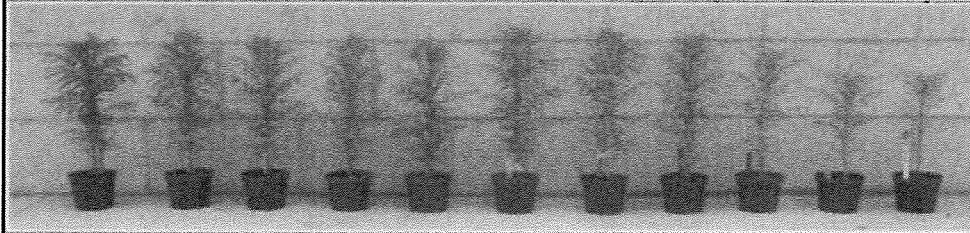
Algal Turf Scrubbers grow a large amount of biomass.





A 2-3 acre installation can grow 50 to 100 tons per year of biomass.

## Soil made from composted algae grows well

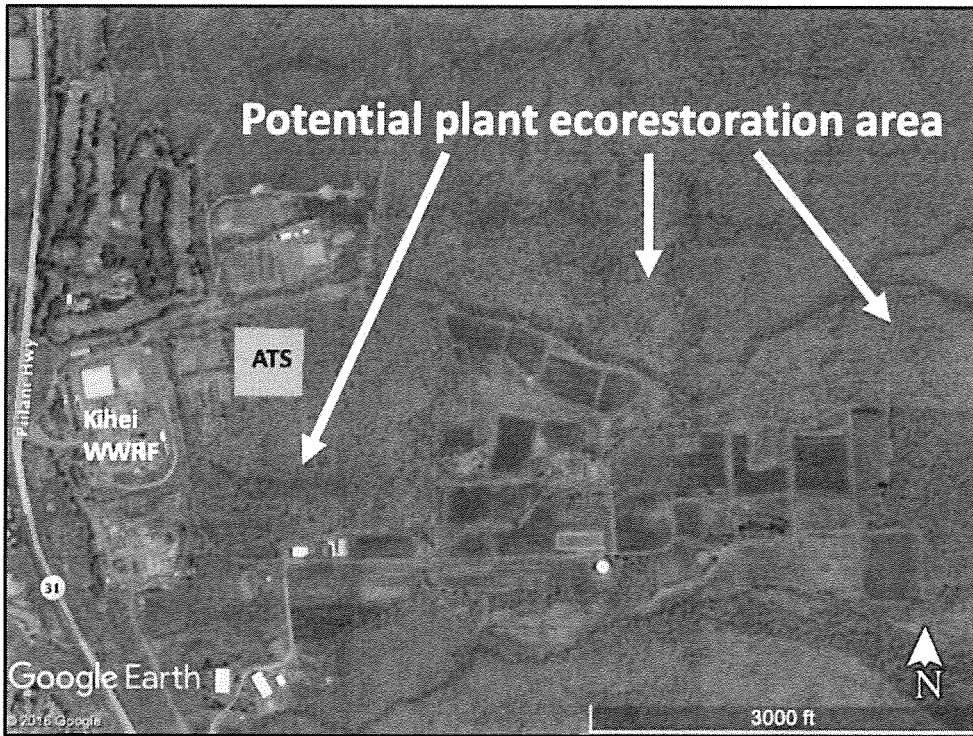


100%  
Composted algae

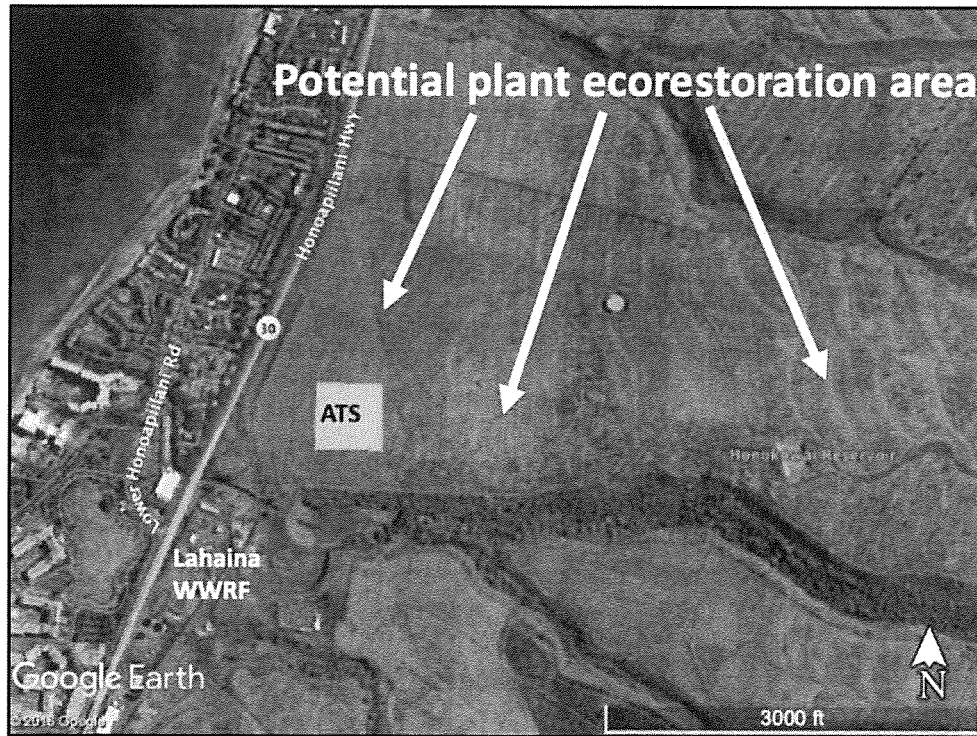
50 / 50%

100%  
Peat moss

This algal biomass can be readily composted to create a rich container medium soil that can be used in growing ecorestorative plants.



Injection wells could be eliminated in Kihei on a few acres of unused land near the Kihei Wastewater Reclamation Facility.



Injection wells could be eliminated in Lahaina on a few acres of unused land near the Kihei Wastewater Reclamation Facility.

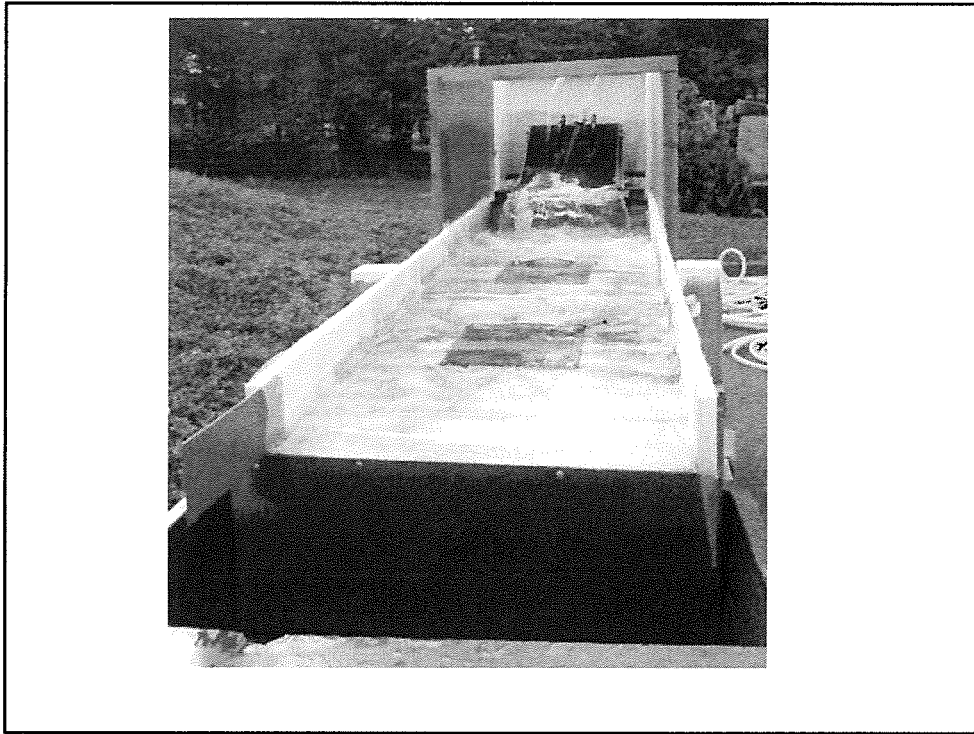
## Next Steps: DOE Bioenergy Technology Grant Application

The screenshot shows a web-based application form titled "CONCEPT PAPER DETAILS FOR FOIA DOE-FOA-0002029 FY19 BIOENERGY TECHNOLOGY OFFICE MULTI-TOPIC FUNDING OPPORTUNITY ANNOUNCEMENT". The form includes sections for "Submission Status", "Project Title", "Abstract", "Topic", "Organization Team", "Lead Organization", "Lead Organization Principal", and "Team Biosketch". A table at the bottom lists team members with columns for "Organization", "Name", "Role", "Email", and "Phone". A "Full Team Member?" button is visible at the bottom right of the table.

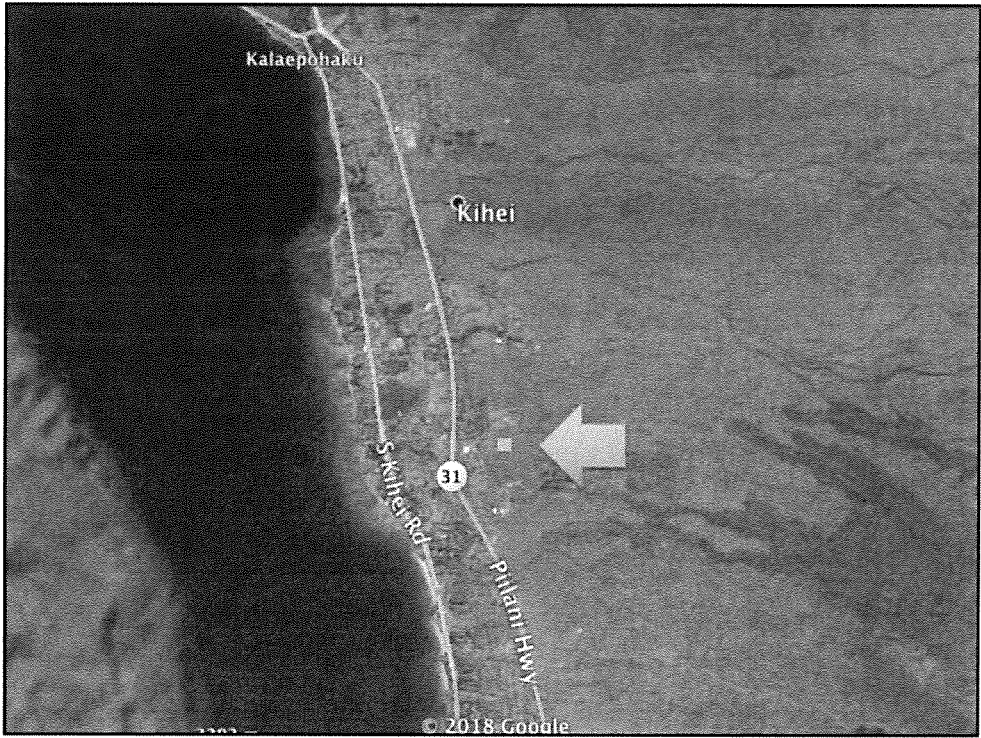
- First submission with summary and partners named due June 3
- Full proposal due July 22

travis.lggett@gmail.com

There is a timely US Department of Energy Funding Opportunity Announcement that could cover most of the cost of an ATS demonstration project.  
<https://eere-exchange.energy.gov/default.aspx#Foald912d0039-68a7-4073-8983-2a6eb5c7cf38>



An initial ATS pilot will look like this test system recently installed in Germany.



A few acres of Hawaiian limu and a native Hawaiian forest, just a tiny fraction of Maui's unused land, could solve the injection well problem.



REEF  
POWER

Reef Power LLC

Travis Liggett  
Founding President

(808) 291-9934  
P.O. Box 790484  
Paia, Hawaii 96779  
travis.liggett@gmail.com

Mahalo for your attention!



## GET Committee

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**From:** Cale Jaffe <cjaffe@law.virginia.edu>  
**Sent:** Monday, May 20, 2019 11:26 AM  
**To:** GET Committee  
**Subject:** FW: Letter from Anderson County, SC re Hawaii Wildlife Fund v. County of Maui  
**Attachments:** Letter from Anderson County to County of Maui re CWA appeal -- FINAL.pdf

Attached please find a letter, sent on behalf of Anderson County, South Carolina in support of a settlement that would result in the County's decision to withdraw the appeal currently pending before the Supreme Court of the United States.

Respectfully,

Cale Jaffe

Co-Counsel for Anderson County, South Carolina and Director of the Environmental and Regulatory Law Clinic at the University of Virginia School of Law

Cale Jaffe

Assistant Professor of Law, General Faculty

Director of the Environmental and Regulatory Law Clinic

University of Virginia School of Law

<https://content.law.virginia.edu/faculty/profile/caj5f/1176168>

<https://engageduva.virginia.edu/faculty/cale-jaffe>

(434) 924-4776



SCHOOL of LAW

Cale Jaffe

Assistant Professor of Law, General Faculty | Director, Environmental and Regulatory Law Clinic

May 20, 2019

The Hon. Michael J. Molina, Committee Chair  
Governance, Ethics and Transparency Committee  
Council of the County of Maui, Hawaii  
Wailuku, Hawaii 96793

Via Electronic Mail Only

Dear Councilmember Molina, Council Chair King, and members of Maui County Council:

We understand that the Council of the County of Maui is considering settlement offers in *Hawaii Wildlife Fund, et al. v. County of Maui*, No. 18-260. As a fellow municipality, we are writing to express our support for a settlement that would result in the County's decision to withdraw the appeal currently pending before the Supreme Court of the United States.

Anderson County, South Carolina has an interest in this case because our community was the site of a 2014 pipeline rupture that released over 369,000 gallons of gasoline. Much of this gasoline traveled less than 1,000 feet through groundwater to tributaries of the Savannah River. Kinder Morgan's clean-up efforts have proven to be insufficient, which has necessitated a Clean Water Act enforcement action initiated by citizens in our community.

In *Upstate Forever v. Kinder Morgan Energy Partners, L.P.*, 887 F.3d 637 (4th Cir. 2018), the U.S. Court of Appeals for the Fourth Circuit upheld a Clean Water Act enforcement action, ruling "in agreement with the Second and Ninth Circuits." Our county supported the enforcement in *Kinder Morgan* by filing a brief as *amicus curiae*. A petition for a writ of *certiorari* remains pending in *Kinder Morgan*.

The factual scenarios in your community and our community may be distinct. In South Carolina, for example, there were very few opportunities for Anderson County to impact development of the pipeline through traditional means such as exercise of zoning authority. A Clean Water Act enforcement action, therefore, has proven essential to give voice to local perspectives. If the *County of Maui* appeal proceeds, the Supreme Court's resolution of your case would likely impact the disposition of the petition in *Kinder Morgan*, and would undoubtedly affect many other communities as well.

We are concerned that some of the arguments advanced in *County of Maui* may leave communities like ours with few options to address our local concerns, which is why we hope you will be able to resolve the appeal without disturbing Clean Water Act protections on which other municipalities depend.

Respectfully,

Cale Jaffe, Assistant Professor of Law, General Faculty  
University of Virginia School of Law

Leon C. Harmon, Esq.,  
County Attorney for Anderson County, South Carolina

*Counsel to Anderson County, South Carolina*

## GET Committee

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**From:** Albert Hahn <albert.hahn@gmail.com>  
**Sent:** Monday, May 20, 2019 9:05 AM  
**To:** County Clerk; GET Committee; michael.vitorino@mauicounty.gov; Kelly King; Keani N. Rawlins; Tasha A. Kama; Riki Hokama; Alice L. Lee; Mike J. Molina; Tamara A. Paltin; Shane M. Sinenci; Yukilei Sugimura; mtanji@mauinews.com  
**Subject:** Please continue our appeal to the Supreme Court  
**Attachments:** Injection Well Testimony - Google Docs.pdf

Thank you for your service. When you have time, please see my attached letter in regards to the injection well lawsuit that Maui is currently involved in.

Regards,

Albert Hahn  
264-4963

May 20, 2019

Dear Mayor and County of Maui Council member:

My name is Albert Hahn and I am the recycled water coordinator for the County of Maui, however I am here as a concerned resident on my own time. I am here to urge you to delay your decision in regards to the proposed ordinance to withdraw our lawsuit in regards our injection wells as I feel that many of you not well informed and also misguided by EarthJustice, the lawyers suing us, and the Sierra Club and about the impact a settlement will have on the people of Maui. Also, I wanted to share my experience as an employee in wastewater.

As the recycled water coordinator allow me share with you about a group I am hosting this Fall. It is a group of planners from around the state touring our Kihei facility. The title of the tour is called, "Everything you never wanted to know about Doo Doo water: No Ka 'oi, see how Maui does it better! Tour Maui's Kihei plant that recycles 50% of wastewater. Hear about the 25 years it took us to get to this point and what it will take for us to move past the 50% threshold. Join us to learn our dirty secrets!" Am I describing the same Maui as earthjustice and the Sierra club? I am proud to be part of the wastewater program here in Maui and describe our wastewater and recycled water system as a model of how things should be done while Earthjustice and the Sierra Club describes us as environmental criminals!

Eassie Miller, our chief 25 years ago, began Maui's recycled water program over without direction from EarthJustice, the Sierra Club or the EPA. This decision to pursue recycled water had a large financial impact, but was made because it was in the best interest of Maui. Does that sound like people that need the oversight of EarthJustice and the Sierra Club, which is one of the conditions of the settlement.

I wanted to inform you if you are not aware that we are not guilty of breaking the law and that with the EPA clarification basically saying that EarthJustice misapplied the law, we will prevail at the Supreme Court. And if we settle, the current judgement will set precedence, we will be saddled with financial penalties for not breaking the law, and that the next lawyer is already in line to take their bite out of us.

How many of you, including Earthjustice or Sierra club, have taken your time to speak with Maui's department of Environmental Management or Wastewater or toured our plants? Or have you already passed judgment on us? I urge you to please do you own research and do not take some sales pitch made by EarthJustice, the Sierra Club, or for that matter, me! Please take the time to research and understand the truth of the matter.

Sincerely,

Albert Hahn, P.E.  
Concerned Wailuku Resident

## GET Committee

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**From:** stillys@everyactioncustom.com on behalf of Patricia Stillwell  
<stillys@everyactioncustom.com>  
**Sent:** Monday, May 20, 2019 10:49 AM  
**To:** GET Committee  
**Subject:** Please settle the Lahaina Injections Wells case

Dear Maui County GET Committee,

I support the Council seeking to settle the Lahaina Injection Well case (HAWAII WILDLIFE FUND, ET AL. V. COUNTY OF MAUI, RELATING TO THE CLEAN WATER ACT) as per CC 19-225,

The County of Maui should not be spending money attempting to gut the Clean Water Act. Instead, the money should be spent ensuring no pollutants reach the ocean from our wastewater facilities. The focus should be on protecting our health and economy by protecting our environment. Wasting money pursuing the exact opposite goal is just insane and against the public good. Please think of the future and how important a healthy environment is to our individual well-being and to the economy.

Sincerely,  
Patricia Stillwell  
227 Kamakoi Lp.  
Kihei, HI 96753

Sincerely,  
Patricia Stillwell  
227 Kamakoi Loop Kihei, HI 96753-7121  
stillys@hawaii.rr.com

## GET Committee

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**From:** jesscott808@everyactioncustom.com on behalf of Jessica Scott <jesscott808@everyactioncustom.com>  
**Sent:** Monday, May 20, 2019 3:19 PM  
**To:** GET Committee  
**Subject:** Please settle the Lahaina Injections Wells case

Dear Maui County GET Committee,

I support the Council seeking to settle the Lahaina Injection Well case (HAWAII WILDLIFE FUND, ET AL. V. COUNTY OF MAUI, RELATING TO THE CLEAN WATER ACT) as per CC 19-225,

The County of Maui should not be spending money attempting to gut the Clean Water Act. Instead, the money should be spent ensuring no pollutants reach the ocean from our wastewater facilities.

As a local member of the Lahaina Community, it absolutely appalls me I swam exactly where the LWWRF effluent was discharged via a submarine stream/seep. As a matter of fact, I have seen fecal matter while swimming north of Kahekili Beach Park.

It is absolutely disgusting that the county refuses to be accountable for this illogical and unsustainable form of waste-water treatment.

Not only will the health of our immediate local community suffer. But slowly and surely tourist will become aware of our water-quality issues, which could result in a decline in visitors.

Sincerely,  
Jessica Scott  
134 Wahie Ln Lahaina, HI 96761-1620  
jesscott808@gmail.com

## GET Committee

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**From:** Kelly King  
**Sent:** Monday, May 20, 2019 9:54 AM  
**To:** GET Committee  
**Subject:** FW:

**From:** Trisha Anderson <emeraldmind@gmail.com>  
**Sent:** Saturday, May 18, 2019 8:28 AM  
**To:** Kelly King <Kelly.King@mauicounty.us>  
**Subject:**

Please remove the corrupt practices from our county government

## GET Committee

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**From:** evaart@everyactioncustom.com on behalf of eva roberts  
<evaart@everyactioncustom.com>  
**Sent:** Monday, May 20, 2019 8:50 PM  
**To:** GET Committee  
**Subject:** Please settle the Lahaina Injections Wells case

Dear Maui County GET Committee,

I support the Council seeking to settle the Lahaina Injection Well case (HAWAII WILDLIFE FUND, ET AL. V. COUNTY OF MAUI, RELATING TO THE CLEAN WATER ACT) as per CC 19-225,

The County of Maui should not be spending money attempting to gut the Clean Water Act. Instead, the money should be spent ensuring no pollutants reach the ocean from our wastewater facilities.

Sincerely,  
eva roberts  
1260 Naalae Rd Kula, HI 96790-7743  
evaart@earthlink.net