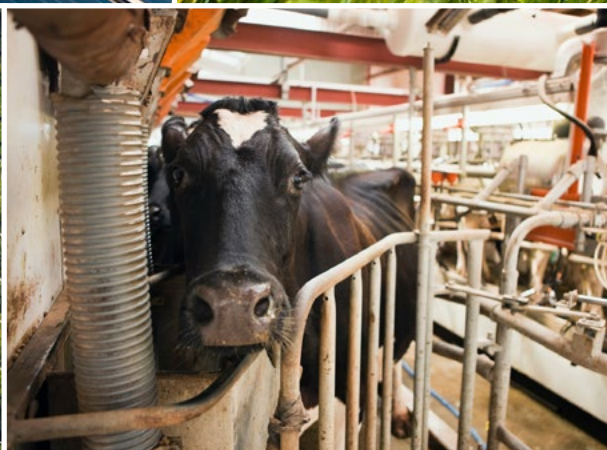
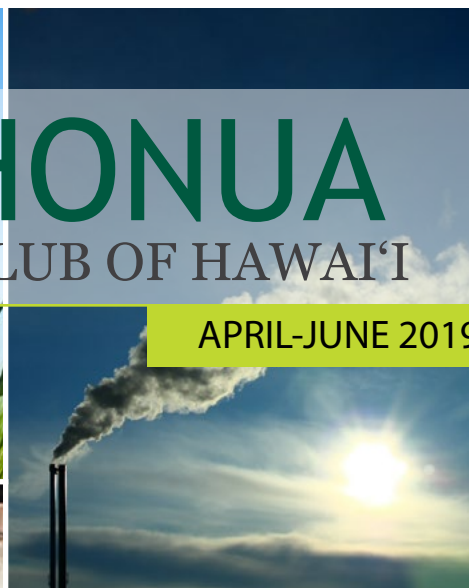




MĀLAMA I KA HONUA

A Quarterly Journal of the SIERRA CLUB OF HAWAI‘I

APRIL-JUNE 2019



This month's issue:

A Lot To Do About Carbon

Effective and Fair Carbon Price	2
The Soil Carbon Solution	4
The Biggest Carbon Sink of All	6
Gas is a Part of the Past	8
Group Reports & Outings	11
2019 Crossover Check-in	28
It's Time to Retire the Tanks	30



SIERRA CLUB OF HAWAI‘I
MĀLAMA I KA HONUA. *Cherish the Earth.*

Key Elements to an Effective and Fair Carbon Price

There is broad agreement that putting a price on carbon can be an effective element in our climate response. Carbon prices must be part of a broader program that includes other policies needed to achieve the broader societal goals and support the fastest and fairest move away from fossil fuels. In Hawai'i, we want to make sure we get our carbon pricing right—that it does not disproportionately affect low and moderate income communities, offers the best benefits to the environment, and supports other clean energy initiatives.

The Sierra Club's view has always been that effectiveness and equity are essential, design and implementation details matter a lot, and there are many different carbon pricing policy options that can potentially work. To achieve these goals we believe in engaging our allies early and often and implementing the following guidelines:

1. The outcome must be focused on measurable emissions reductions

Climate policies should be guided by a need to meet and, if possible, exceed the emission reduction goals set by the Sierra Club. These goals include cutting pollution by a third from 2005 levels by 2025, one half by 2030 and at least 90 percent by 2050. It's also important to adopt a CO₂ baseline and a declining emissions schedule that aims to achieve these goals and is consistent with the best climate science.

2. Equity matters

Under the current fossil fuel-reliant energy system, frontline communities bear a disproportionate burden of the impacts of conventional air pollution and the climate impacts of greenhouse gas emissions. If designed appropriately, carbon pricing mechanisms will help tackle climate change and reduce pollution, but they will also affect society at every level.

No one should bear an unfair burden, whether economic or environmental, from the effects of a carbon price like increases in electricity rates, job losses, and negative economic changes. To protect these communities, carbon pricing should include cap-and-trade programs established to control greenhouse gases and incorporate stringent pollution caps with tax incentives for reducing fossil fuel use. These programs should not receive carbon allowances, which are permits to pollute, for free. Policies must also be incorporated to reduce conventional air pollution, with an emphasis on polluting sources that harm the health and environment of frontline communities.

In addition, revenues obtained from carbon pricing programs should be used to:

- expand clean energy and energy efficiency to further reduce carbon emissions, and invest in climate adaptation;
- finance targeted investments in frontline communities affected by conventional air pollution;
- provide financial assistance and job training to workers and communities affected by the transition away from fossil fuels;

Our two biggest problems are climate change and income inequality. If we pit one against the other, neither will win.

- Michael Brune, Sierra Club Executive Director

- offset the regressive effects of increased electricity prices in low-income households.

3. A stand-alone carbon price is hard to make effective

Carbon pricing is not a silver bullet for solving climate change. The majority of prices set under existing taxes and trading systems are well below the social cost of carbon. Although there is evidence that existing carbon pricing programs have reduced emissions, those reductions are nowhere near the targets set by the Sierra Club. For this reason, the Sierra Club advocates for a comprehensive approach that includes a carbon price as well as policies such as renewable electricity standards, funding for clean energy measures, research, building standards and codes, etc.

4. Devoting carbon revenues to a single purpose is less than ideal

The Sierra Club supports using revenue from a carbon price for targeted refunds, clean energy and other solutions, mitigation of climate impacts, and transition assistance and investments in frontline communities. The best mix depends on the context, but without elements of several of these categories we believe a carbon price will be more difficult to enact, will achieve less from an environmental perspective, and will be less equitable.

5. A strong carbon pricing mechanism should be inclusive of all stakeholders

The measure of success is not whether a carbon price is adopted but whether it is effective over the long run. Enacting and sustaining a carbon pricing program requires broad political buy-in. Carbon pricing efforts must involve all stakeholders in a genuine dialog if it is to achieve political viability and reflect a just approach. That means community members, labor, and others should be involved as equal partners in the design and dissemination of the proposed pricing approach.

6. Carbon pricing policies can be effective, but we should be open to other policy options

The Sierra Club is always open to other policy and legislative options to reduce climate pollution like Renewable Portfolio Standards and regulatory decisions to move away from fossil fuels. Other policy options still need to address issues such as their impact on conventional pollution, equity, and inclusion.

This is a summary of the Sierra Club Carbon Pricing Guidance. You can find the full guidelines at [bit.ly/SC-cp18](https://www.sierraclub.org/SC-cp18)

The Backstory to Carbon Pricing: The Most Important Number You've Never Heard Of

by Regina Ostergaard-Klem, Ph.D., Hawai'i Pacific University Professor

I've been teaching ecological economics at HPU for the past eleven years. Ask my students at the end of the semester, and they should be able to competently argue the pros and cons of putting a price on carbon. But what does putting a price on carbon mean and how do I convey all its complexities to my students? Although only one piece in the complicated puzzle of carbon pricing, I find it helps to kick off with its backstory, one that is focused on "the most important number they've never heard of" – the social cost of carbon (SCC). Perhaps you are already familiar with this story or maybe it is new to you; either way, I hope that you will also find it helpful towards increasing your and others' understanding of carbon pricing, particularly given that related topics like carbon taxes are currently such hot topics.

The social cost of carbon

Remember that article or blog post you read somewhere saying that the price on carbon is approximately \$40 per metric ton? That figure represents what is called the Social Cost of Carbon (SCC or SC-CO₂). It's a product of a comprehensive multi-year interagency US government effort, using cutting edge modeling, incorporating a varied list of assumptions, and spurring tons of debate, both inside and outside the courts. In economics-speak, the SCC is the net present value of the monetary costs from future damages of an additional metric ton of carbon released into the atmosphere. It's a best guess, albeit constrained by uncertainty and complexity, of the damage costs that future society members will bear due to a metric ton of carbon that was released currently. Or, on the flip side, it shows the benefits that flow from mitigating that extra ton of carbon now in order to avoid those damages in the future.

So the \$40 per metric ton of carbon is by no means a hard, steadfast number. In fact, that figure draws a lot of criticism because it is the US government's central value across three different models and for three different scenarios. Other proposed values for SCC can range considerably, anywhere from \$1 to \$105, depending on the models used, the assumptions, and which way the political breeze is blowing. The related complexity and uncertainty will always be problematic, no matter how good the models get and the data become. However, assigning a low or no number is little more than affixing a price of zero on the impacts of carbon, essentially zeroing out either the benefits of mitigation or the costs of adaptation.

Calculating the SCC

A variety of factors – socioeconomic, earth systems/climate, damage functions, and discounting – all play a role in calculating the SCC. Future patterns in both demographics (population) and economics (GDP), are assumed to influence carbon dioxide emissions. Armed with projected emissions, climate models analyze

how variables, such as temperature or sea level, will change. Estimated monetary damages, depending on the model, could include property damages from flooding and storms, lost crops, increased human health risks, etc. Last but not least, discounting brings in the critical element of time...

The element of time

Unlike other pollutants that cause impacts on human and environmental health soon after exposure, the latent impacts of excess carbon dioxide in the atmosphere take place far into the future and over a very long time frame. This element of time further complicates this scenario, since those impacts will be experienced not by us but by future members of society.

Unless the models to calculate SCC incorporate a way to "bring back" future damages into the present so they are significant enough to combat our own bias to the present, we are in effect giving no weight to those future generations. Fortunately, discounting is part of the SCC calculation, yet the critical assumptions behind which discount rate should be used can be very contentious. One of my all time favorite explanations of the intricacies of choosing a discount rate for those calculations can be found here: [bit.ly/grist-discount](https://www.grist.org/article/2012/05/21/01-grist-discount/).

The most important number you've never heard of

The social cost of carbon has been referred to as "the most important number you've never heard of" for good reason. It already played a role in regulatory impact analysis of programs to reduce carbon through energy efficiency and motor vehicle standards. Although not required by the government, some in the private sector are using SCC to inform their investment decisions. More broadly, it will be a key ingredient in any attempt at carbon legislation and choices of policy instruments like carbon taxes. Economists point to the role of the SCC as the linchpin of climate policy. Though the SCC is far from perfect, Greenstone and Sunstein, the originators of the SCC in the Obama administration, call it a "necessary guidepost" to balance costs to today's economy with damages coming in the future (see here: [bit.ly/1215scc](https://www.nationalacademies.org/2017/01/12/1215scc/)). And, as climate scientist Myles Allen suggests, it can "clarify where data ends and society and political choices begin." So that explains why the SCC is such an important number, now let's make sure that everyone hears about it!

Other Resources on SCC:

National Academies of Sciences, Engineering, and Medicine 2017. *Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide*. Washington, DC: The National Academies Press. [bit.ly/doi-ssc](https://www.nationalacademies.org/2017/01/12/1215scc/).

Native Forests are Crucial to Achieve Hawai'i's Climate Goals

by Leah Laramee, DLNR-DOFAW Natural Resource Manager

Carbon is a hot topic. With news of the largest polar ice shelf about to break from the arctic, I mean this literally. Closer to home, Governor David Ige has pledged that Hawai'i will be a net carbon sink state by 2045. This means that Hawai'i will absorb more carbon than it produces. The world has eyes on us to see how this will be accomplished. The "Hawai'i Greenhouse Gas Emissions Report for 2015" projects that in 2025 Hawai'i will produce five times more carbon dioxide than Hawaiian forests can remove. Renewable energy and clean transportation will help Hawai'i reduce carbon emissions but it is generally agreed that a complete zeroing out of carbon emissions is not possible. To be carbon neutral, we have to increase carbon sequestration in our islands.

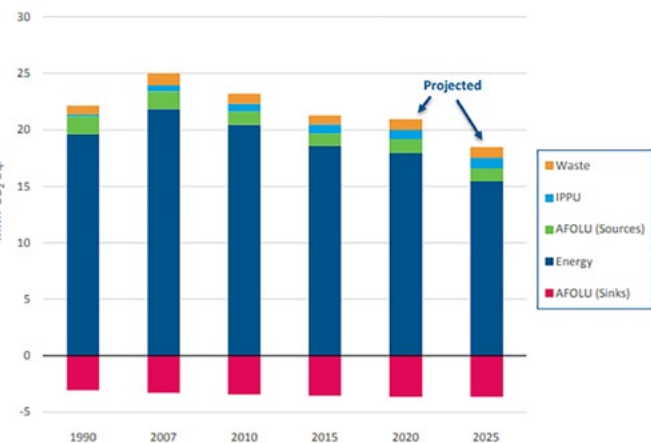


Figure 1: Emissions & Projections for the Agriculture, Forestry and Other Land Uses Sector (Source: Hawaii GHG Emissions Report for 2015)

That is a lot of pressure on our 'āina, but it is up for the challenge with the right support. Our native forests are multi-layered and diverse, with thick canopies and dense understories that make our mauka mesic wet forests perfect for collecting water for our aquifers and protecting our reefs from eroding. Hawai'i's soils are also excellent at storing carbon. In their "Baseline and projected future carbon storage and carbon fluxes in ecosystems of Hawai'i", Selmants et al. 2017 shows that native wet mesic forests have the highest capacity to store carbon compared to any other natural landscape. However, through historical deforestation for unsustainable lumber harvests and sugarcane plantations, as well as ongoing land degradation by wild non-native ungulates such as cows, deer, goats and pigs, Hawai'i's forests—one of our most valuable assets against climate change—have been degraded to unmanaged, wild grasslands.

Hawai'i's government, as well as many private entities, are currently looking into innovative financing mechanisms to sequester more carbon through reforestation and watershed protection. If we are able to take these non-native grasslands and return them to a native plant community, we can increase the overall carbon sequestration of the state and move closer to our carbon neutrality goal. As an added bonus, restoring native landscapes will also restore the natural functions of the land, increasing resiliency against mounting climate change risks such as fires, storms, flooding, and drought.

Learn more about the state's forest carbon projects in Kahikinui/Nakula on Maui and Pu'u Mali on Hawai'i Island at bit.ly/DOFAW-c

More Trees, Less Carbon

by Randy Ching, Service Trip Program Coordinator

Randy here with big news! I have recently joined the Sierra Club of Hawai'i team as the new Service Trip Program Coordinator. My vision is to bring back the Service Trip Program in all its glory and use this program to plant many thousands of trees. But first I am creating a tree maintenance crew that would help keep recently planted trees alive. This crew would go out about once a month to care for young trees.

The main goal of the service trips and tree maintenance is to increase the number of trees in Hawai'i to sequester carbon dioxide in an effort to keep global warming under 2 degrees Celsius. Native trees can sequester many tons of carbon dioxide over their lifetime, but they can't do that if they're dead. Weeding and watering recently planted trees, mostly native, and clearing debris will be the maintenance crew's kuleana.

Our focus for the next few months will be on two sites: Ala Mahamoe and the Akupu Enclosure. The Ala Mahamoe site, in Moanalua, was planted with 1,000 native trees in early November. In partnership with The Outdoor Circle, Mālama Learning Center, Ko'olau Mountain Watershed Partnership, and the Garden Club of Honolulu, Professor Camilo Mora received help from 200 volunteers to plant the trees in a single day.

The Akupu Enclosure is in Pālehua, above Makakilo. It is part of the Gill Ewa Lands. The enclosure is being reforested with natives to help restore the elepaio's habitat. The O'ahu Group has been involved for several years in the enclosure's restoration.

Our first tree maintenance day was on March 3 at Ala Mahamoe. Our next projects are April 6 planting trees in the Akupu enclosure, April 14 at Ala Mahamoe for tree maintenance, and April 21 at Pālehua for tree maintenance. If you are interested in any of these projects, please contact me at randy.ching@sierraclub.org, or call at 538-6616.



The Soil Carbon Problem Solution

by Jayme Barton, Scientist, Farmer

The clock is ticking on Hawai'i's ambitious and commendable goal of greenhouse gas neutrality by 2045, and as the most devastating impacts of climate change draw near, is it finally time for soil to shine? There is more carbon residing in soil than there is in the atmosphere and all plant life combined, however much of the historic soil carbon has been released into the atmosphere from years of unsustainable land use and agricultural practices worldwide. With the right management practices implemented on Hawai'i's working lands, we can build healthy, carbon-rich soils that return some of that lost carbon to its rightful place. So, what is "healthy soil", and why does soil carbon matter?

Healthy soils are rich in carbon, the building block of organic matter which gives soil its structure, fertility and water holding capacity.

If a soil is healthy, a single teaspoon may contain more biological life than there are humans on the planet. Just as we are learning about the impact of microbial life in our guts, we are also learning about the function of biological life in soil. When this life is in balance, we see soil pests better kept in check, nutrients properly cycled and healthier plants as a result. A soil is said to be healthy when the chemical, physical and biological properties of soil are working optimally. This supports soil to function as a vital living ecosystem that sustain plants, animals, and humans. What this means for the farmer is higher yielding crops that require less fertilizer and are more resistant to pests and disease; for our aquifers, higher groundwater recharge due to the soils capacity to retain and filter more water; and for our streams, oceans and fragile reef ecosystems, less potential for soil and nutrient runoff. Healthy soils provide ecosystem services that reach far beyond the farm and can help Hawai'i mitigate the stressful impacts of climate change from mauka to makai.

Our unique and beautiful islands boast nearly all of the soil types and microclimates found in the world. Some of our soils have incredibly high organic matter and carbon content, while others are depleted through years of intensive cultivation.

A recent University of Hawai'i study at a Maui ranch highlighted the immense amount of carbon tied up in their soils from excellent management of their grazing lands. Their use of best management practices were able to not only maintain the natural state of carbon in the soil, but likely increase soil carbon content over time through pasture management. With nearly 900,000 acres of land in ranching in Hawai'i, there is a large amount of soil carbon stored in these lands that is maintained and providing, at times unrecognized, ecosystem services for the state. Some of Hawai'i's farmlands reside on soils naturally lower in organic matter content, and in some cases very depleted of soil carbon from years of intensive tillage. However, this soil carbon problem becomes our soil carbon solution. These highly degraded lands, cleared of their once native landscapes, have huge

potential to sequester carbon with the use of best management practices such as covering the soil with short- or long-term cover crops, agroforestry plantings, the use of compost, minimizing soil tillage and disturbance, and grazing management.

There are many ways to participate in the soil health movement. Volunteering time or support to the many organizations who focus on native forest restoration and protection helps them do the vital work of keeping Hawai'i's watersheds functioning optimally. Another way is to support our farmers and ranchers is by buying local. Locally grown and consumed food contains far fewer "food miles" and in turn a smaller carbon footprint.

A new program Healthy Soils Hawai'i aims to support farmers and ranchers by working with them to install best management practices on their lands that sequester carbon, build soil health, and reduce greenhouse gas emissions. Through their participation they receive free soil testing to quantify the impacts of their management on soil carbon and soil health, technical assistance, and an honorarium to support the good work they are doing. The more we are able to help our farmers increase their bottom line, the more resilient their operations and in turn our food system becomes.

The Hawai'i Greenhouse Gas Sequestration Task Force, funded through June 2019 at the time of writing this, is another group of diverse individuals from various government and private organizations tasked with determining how to sequester carbon and reduce greenhouse gases on working lands. Currently they must ask for funding each year from the Legislature in order to hold meetings and develop plans to meet the State's greenhouse gas neutrality goals. Long-term funding for this task force can help support their efforts.

There are many organizations both public and private engaging with farmers, ranchers, and landowners to manage watersheds, restore native forests, and protect vulnerable reefs and nearshore resources. These organizations efforts combined support healthier ecosystems that are more resilient to climate change, and the common denominator we all share, either directly or indirectly, is soil.



Food Choices Are Key to Saving the Planet

by Doorae Shin, Hawai'i Chapter ExCom Member

If we really want to save the planet, we have to talk more about our food choices.

We know from the United Nations Food and Agriculture Organization, that 44% of greenhouse gas emissions come from industrial animal agriculture. Additionally, nearly 1/3 of Earth's freshwater is used for animal agriculture, 1/3 of Earth's arable land is used to grow food for animals, and 26% of Earth's ice-free land is used for grazing.

Nearly half of all global greenhouse gas emissions from human activity are from large-scale animal agriculture alone, so a bigger part of our conversation to address climate change should be around food choices. Especially given that livestock primarily contributes to emissions in the form of methane, which is roughly 30 times more potent than carbon dioxide as a heat-trapping gas.

From an agricultural perspective, producing meat is extremely inefficient and challenging because of the sheer amount of food and water animals require to survive. This is what leads to the shocking amount of land and water use associated with producing meat, dairy and other animal products. It is important to also note that about 90% of GMO soy and corn grown in the United States gets fed directly to factory farmed animals.

Overpopulation?

A growing population continues to be a stress on our planet, but the crisis is not in human overpopulation per se, but in the overpopulation of the animals we raise for food. We kill an estimated 70 billion land animals per year just to produce food products. It's tough to wrap your head around how much food, water and land that goes into raising and slaughtering 70 billion animals per year.

And the issues that come solely from the wastewater management – or lack thereof – in these operations, are clear. Improperly managed runoff from farms with livestock often pollutes our streams, rivers, and ocean with an added dose of antibiotics, hormones and pesticides. Look at the recently failed Big Island Dairy: it was turned into a factory farm and then sued for illegal dumping and pollution of cow waste into the local streams. It was subsequently fined severely and finally shut down.

Water

When I found out that one burger requires over 600 gallons of water to produce, that one gallon of milk requires 1,000 gallons of water to produce, and that plant-based foods require only fractions of the water that animal foods require, it was a big shock. Up until then, I was told to take shorter showers and fix leaky faucets to conserve water—eating less meat and animal products is actually a way more effective use of my time and energy to try to save our precious planet. With 1/3 of our planet's freshwater used for animal agriculture, it is clear that eating less meat is crucial to saving water.

What about Grass-fed?

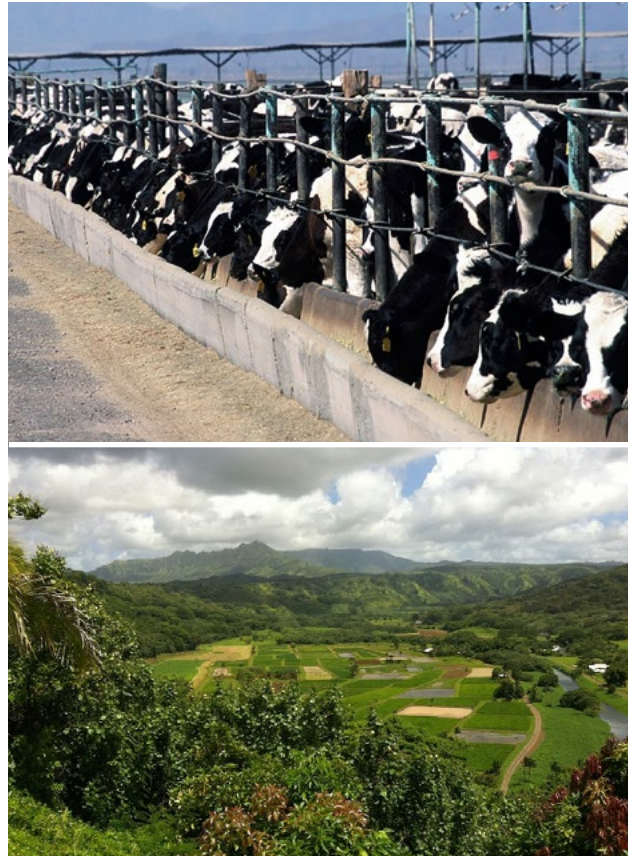
Though plant-based eating is a growing movement, there is also a growth in conscious meat-eating. With this, it is imperative we talk about grass-fed beef and other forms of meat marketed as sustainable. Meat from grass-fed animals, though it is likely healthier than the GMO-fed, antibiotic-filled meat from factory farms, still does not prove its supposed sustainability when you look at the greenhouse gas emissions. Sure, it's a plus not having to grow and ship monocropped animal feed, but the methane and greenhouse gases from the animals continue to contribute harmful emissions into our atmosphere—especially when soil health is not maintained to sequester a portion of the animal's emissions. In terms of

greenhouse gases, grass-fed beef just does not pencil out for the planet.

Accepting and Embracing

As humanity finds itself at this planetary crossroads with the impacts of climate change happening already, we must make a choice. Improving waste management, upgrading animal feed, advancing pasture and soil management in commercial systems can reduce emissions but cutting the amount of meat and animal products we consume will have a greater, more meaningful impact on climate change.

So the question remains, do we stay in our comfort zone, only making incremental steps to change, or do we decide to be bold and honest about the urgent shifts we must make in our habits, our lifestyle, and our economy to save our planet?



The Biggest Carbon Sink of All—the Ocean

by Tanya Dreizin, Hawai'i Chapter Office Manager

For most of us, when we think about carbon sequestration, we think about trees, forests, and maybe soil (as we've just been reminded of in the previous articles on pgs. 3-5). The ocean doesn't come to mind for many of us. Although often overlooked as a carbon sink, the oceans' systems serve as vast natural carbon sinks and are incredibly important in regulating the Earth's temperature and CO₂. Since the Industrial Revolution, the oceans have absorbed approximately one-third of human-emitted CO₂ (Khaliwala et al., 2013), storing it in algae, vegetation, and coral under the sea. Unfortunately, as the oceans warm and coastal marine ecosystem degradation continues to occur, this affects the overall efficacy of the ocean as a carbon sink.

How it works

It's estimated that the ocean contains 50 times more carbon than the atmosphere—and the deep sea may be considered the largest carbon sink on the planet. There are two main natural systems that transfer carbon between the atmosphere and the ocean: the physical pump and the biological pump.

The superior of these is the physical pump, which allows for about nine-tenths of the atmospheric carbon dioxide to be transferred to the ocean. When exposed directly to surface seawater, carbon dioxide is dissolved into the ocean and then transported by the currents into the ocean's deep layers. Once carbon is in the deep ocean's reservoir, it has "sunk"—it is out of contact with the atmosphere. When seawater is cooled, it takes up more carbon dioxide, and then, when the water is warmed, it loses carbon dioxide into the atmosphere. This physical process is called vertical deep mixing—this circulation is why cold water fills the deep ocean and why the ocean can store such an enormous amount of carbon.

On the other hand, the biological pump works when carbon dioxide is first "fixed." Autotrophs, such as plants, algae, phytoplankton and bacteria, absorb the carbon via photosynthesis. As these autotrophs eat, defecate, die and decompose, they become organic matter known as marine snow, which then begins sinking to the ocean floor. Once deep enough, this bacterial decay releases carbon dioxide and other nutrients, making them available to be used again by phytoplankton. Finally, carbon is stored in the deep ocean, usually where it is either transported via currents or captured and buried by sediment and rocks. Once carbon is in the deep ocean's reservoir, it is out

of contact with the atmosphere. The biological pump is sensitive to disturbances and relies on a healthy ocean ecosystem to work properly.

Threats to the Ocean Carbon Sink

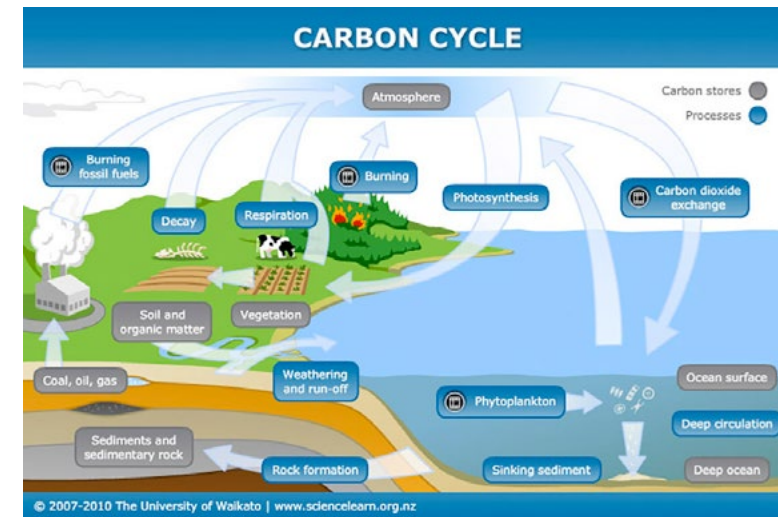
Healthy ocean ecosystems are important in their role as climate change mitigators, as they rely on capturing carbon for their development. Coastal wetlands, such as mangroves, salt marshes, and seagrass beds, store about ten times more carbon than continental forests, yet cover a relatively small area of the planet. Despite their environmental and socio-economic importance, these coastal ecosystems have been greatly impacted by coastal development, urbanization, and exploitation for recreation and industry (Nichols et al., 2018). Carbon sequestration and their role in climate change mitigation are just a couple of the many reasons to work for policies and actions that promote the protection of marine coastal ecosystems.

There is also a lot of unknown variability in how climate change affects carbon sinks. As carbon emissions continue to grow at a rapid pace, it is unknown how much more carbon natural sinks, including the ocean, can take on. One article by McKinley et al. (2011) notes that the North Atlantic has already showed signs of reducing its carbon uptake, pointing to global climate warming trends—and consequently, oceanic

warming—as the cause. Corinne Le Quéré, chair of the Global Carbon Project, states that "research suggests that if the ocean and forest sinks can't keep pace with rising greenhouse gas emissions, then the extra carbon staying in the atmosphere could increase warming by 5 to 30 percent more than if the sinks keep absorbing at their current rate" (Kenward, 2011).

Although the planet has relied on natural processes to regulate carbon for millennia, anthropogenic emissions over the past century may significantly alter these processes and cycles with unknown and potentially devastating consequences. While it is important to continue working towards carbon sequestration, it is of even more importance to cut CO₂ emissions as much as possible, in order to maintain the earth's natural equilibrium and combat climate change.

To learn more about the ocean's role in mitigating climate change, check out ocean-climate.org.



Letter from the Chair: Our Climate Choices

by Colin Yost, Hawai'i Chapter Executive Committee Chair

It's a bleak thing to say, but the international scientific assessment of the climate crisis feels like a cancer diagnosis. I wake up every morning with the knowledge that the diagnosis hasn't changed and that our planet is one day closer to catastrophe. It's easy to feel intimidated by the unprecedented individual and collective change and action that will be necessary to fix or at least meaningfully mitigate the problem.

Thankfully, sources of inspiration are everywhere, and one of mine these days is Greta Thunberg, the 16-year old Swedish activist who – by herself – started picketing for climate action about seven months ago in front of the Swedish Parliament. She then became the catalyst for a global student movement and has been nominated for the Nobel Peace Prize. Amazing!

There's no way Greta could have predicted the international ripple effect of her individual choice to picket Parliament, but even her extraordinary effort will not be enough. It will take millions more individual actions to lead to big, fundamental global changes. Other articles in this Mālama discuss ways to increase Hawai'i's carbon sequestration and reduce your own carbon footprint. Some life choices will be easier than others, but making greener choices now will greatly impact the next generation's climate. And your choices may inspire your family, friends, and neighbors to do the same.

Many of us already power our homes with solar and drive electric cars or ride bikes but there are still more things that each of us as individuals can do to make a difference. So I'm using this article as a personal pledge to make five new significant changes and to solicit your feedback by asking you for five things you will do for our planet (see the cut-out response form below). I'll compile the responses and report back on the best ideas in the next edition of the Mālama.

Here are my 5 things:

1. Research, choose and invest in a carbon offset program to make my family carbon neutral or carbon positive, and then inspire 10 friends to follow the same program for their families. There are so many to choose from – I am currently looking at Carbon Fund, Native Energy, the Nature Conservancy, and Carbon Buddy.
2. Get rid of the second fridge in my hot garage. There will be some family resistance on this one, but it must be done.
3. Finish the Marie Kondo home cleansing process that my wife and I started a month ago. This has been great not just because we've been able to donate a lot of decent quality stuff so that it can be reused by others, but it's reminded us of the value and psychological benefit of living more simply and consuming less in the first place.
4. Finally start a real garden in my backyard and grow a significant amount of delicious vegetables.
5. Plant 100 native trees in a place where they are likely to thrive.

Your turn!

I encourage you to think about what changes you can make for a brighter climate future. Share your five choices below and send them back to me: Colin Yost, Sierra Club of Hawai'i, P.O. Box 2577, Honolulu, HI 96803. You can also share your choices with me online at bit.ly/SCH-419.

1. _____
2. _____
3. _____
4. _____
5. _____

Name: _____ Email address: _____

Gas is Part of the Past

by Sierra Club of Hawai'i Staff

In a big victory for Hawai'i's clean energy goals, the Environmental Court ruled in February that the Hawai'i Department of Business, Economic Development, and Tourism was wrong to grant nearly all requests for variances from the Solar Water Heater Mandate. By issuing thousands of variances, the agency has reinforced Hawai'i's reliance on fossil fuels—to our collective peril—instead of empowering residents to move to clean, renewable energy sources that will reduce their energy costs.

Hawai'i is already seeing the impacts of climate change: eroding beaches and coastal roads, rain bombs and detrimental flooding, and rising sea levels and temperatures. These impacts can no longer be ignored and we are now at a critical time where we must massively reduce fossil fuel emissions. Hawai'i has some of the most progressive clean energy goals in the nation. In order to reach these goals, Hawai'i as a whole—including our state agencies—must take all the right equitable steps to move away from dirty energy sources. The Solar Water Heater Mandate is part of that progress, requiring that all new single family homes install solar water heaters instead of gas. The recent ruling upholds the original intent of the Solar Water Heater Mandate and means there is no longer any reason to build gas pipelines in the islands.

The court ruled in favor of the Hawai'i Solar Energy Association and the Sierra Club of Hawai'i, citing the "wholesale" nature of variances issued by the agency. Advocates for the mandate pointed to the legislative intent in the bill that made clear the gas appliance variance "...will be rarely, if ever, exercised...". Since the mandate's implementation in 2010, nearly 99% of the 7,000 variances applied for have been approved by the agency—over one-third of all newly constructed homes. This includes subdivision developments, even though they are not actually eligible for this variance. The Department of Business, Economic Development and Tourism granted most requests as long as the applicant indicated that a second gas appliance was to be installed in the residence.

It is estimated that Department of Business, Economic Development and Tourism's failure to properly screen variances from the Solar Water Heater Mandate has cost the solar industry \$36 million so far, and would have likely been granted for over 15,000 new homes in sunny Ho'opili and Koa Ridge on O'ahu. Constructing new subdivisions dependent on natural gas, locks residents into relying on fossil fuels for the long term instead of facilitating their transition to clean renewable energy. This dependence—in a time when fossil fuel use should be minimized and in places with an abundance of sun—undermines the mandate's environmental benefits and unnecessarily raises energy bills for thousands of new homeowners.

A month after the court's ruling, Hawai'i's Gas filed a request to intervene with the Environmental Court so the company can reopen the decision. Hawai'i Gas is the sole provider of gas in the Hawaiian Islands and exclusively benefits from the thousands of variances granted. The court must first decide whether the company should be allowed to intervene in the case based on factors like whether the company has an interest in the lawsuit and whether that interest was not adequately protected by existing parties. The court is expected to decide on the intervention in the next month.



Burning fossil fuels is not 'clean,' nor is it 'cheaper' for consumers or the state, especially with climate change threatening everything we love about Hawai'i. It's time for Hawai'i Gas to stop fighting the future and evolve to a business that doesn't put profits over people and the planet.

-Marti Townsend

Mahalo Earthjustice for representing the Sierra Club of Hawai'i and Hawai'i Solar Energy Association on this case.

And thank you to all those who have supported this fight against new, large-scale gas infrastructure in our islands.

A Bridge To Nowhere

by Kirsten Fujitani, Hawai'i Chapter Communications Manager

For years, we were fed messages about the benefits of using “natural gas as a bridge fuel” to help us get off those dirty energy sources like coal and oil and ease our way into clean renewable energy. Fracked gas, known to most as “natural gas”, was sold to consumers as a cleaner alternative, better for the environment and the changing climate. We’ve seen through the smoke screen—put up mostly by the fossil fuel industry themselves—and there is not much that is natural about fracked gas.

It’s not too much different than coal or oil—it is still a fossil fuel and it is still non-renewable. Although it burns cleaner at power plants, fracked gas still emits greenhouse gases, typically in the form of methane which is much more powerful at trapping heat in the atmosphere than carbon dioxide. Not to mention the detriment that comes with the practice of fracking. Fracking splits open rock formations in the Earth with high-pressure streams of water, chemicals, and sand, opening the rocks, allowing gas to escape to be stored or transported. This extraction uses extreme amounts of water, produces highly toxic radioactive water, and causes earthquakes in areas that are not typically subject to quakes. It is incredibly dangerous and detrimental to not only the the environment but to public health. Communities near fracking industries often face contaminated water resources, terrible air quality, atypical earthquakes, and water scarcity.

It should alarm us all that fracking is exempt from most environmental and public health laws, including the Clean Water and Clean Air Acts.

It is clear, that fracked gas is a bridge to nowhere—except to more fracked gas. Clean energy is not the future, it is the present. No longer is there the need for a bridge. Every day, renewable, clean sources are becoming more accessible to all and demonstrating that they can supply affordable, reliable, low-carbon

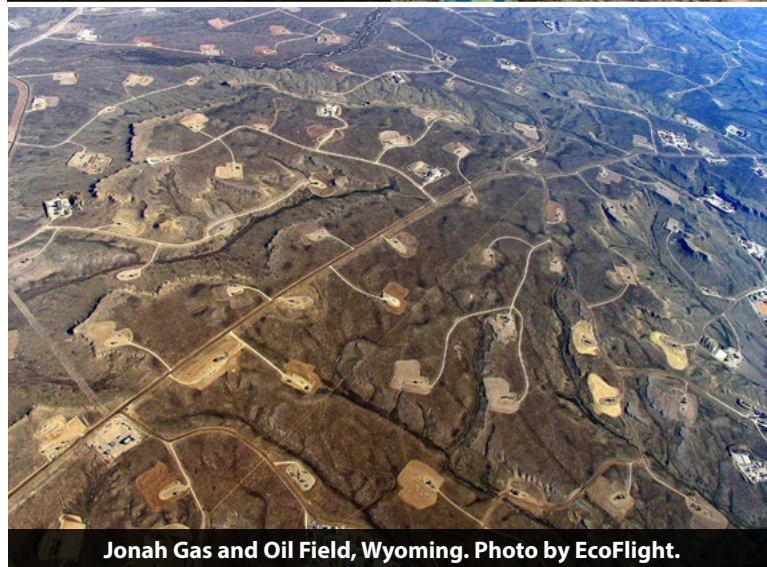
power. Our islands’ energy production is moving in the right direction and the last thing we need is more gas, especially gas imported on fossil-fuel-fueled transportation.

Yet despite Hawai'i's renewable energy goals, special interests and local institutions keep us invested and reliant on dirty energy imports. Hawai'i Gas Co. continues to explore increasing the amount of liquified natural gas it imports to the islands, instead of investing in local renewable energy projects. All the while, trying to reopen the gas loophole in the Solar Water Heater mandate they have been profiting off for years. Other investments, like Bank of Hawai'i's recent investment in an oil refinery in Tacoma, Washington and First Hawaiian Bank's previous investment in the Dakota Access Pipeline work against our clean energy goals and continue to fund projects that have irreversible impacts on the environment, communities adjacent to those projects, and our shared atmosphere.

Hawai'i fought off NextEra Energy's \$4.3 billion takeover of Hawaiian Electric in 2016 that would have left us more dependent on fossil fuels with little hope for a clean energy future. The last coal plant in the islands is set to close by 2023. 50% of Kauai's energy is produced by renewables. We are on track to reach our renewable energy goals, rid ourselves of coal, and reduce our greenhouse gas emissions to equal or below 1990 levels by next year. We must remain diligent to ensure that there is no new large-scale gas infrastructure built, that special interests don't lock us into new dirty investments, and that policies are passed to incentivize clean energy for homeowners and businesses. The Sierra Club of Hawai'i, and our allies, will continue to fight for a clean and equitable energy future for the islands—with no gas and oil imports, more accessible renewables, and greener investments.



Photo by Surfrider Foundation



Jonah Gas and Oil Field, Wyoming. Photo by EcoFlight.



VOTE FOR TOMMY WATERS IN THE HONOLULU CITY COUNCIL DISTRICT 4 SPECIAL ELECTION



SUPPORT TOMMY WATERS FOR THE ENVIRONMENT:

Tommy Waters has long been an advocate for the environment, during and after his time in the House of Representatives.

During his three terms as a state representative, he introduced and supported legislation to:

- protect drinking and coastal waters
- shoreline setbacks
- prohibit new seawalls and groins
- fund state conservation efforts

Tommy Waters has also been a strong advocate for the Honolulu Office of Climate Change, Sustainability, and Resiliency, Kawai Nui Marsh Restoration, protection of the Ka Iwi Coast open spaces, and clean energy solutions.

SPECIAL ELECTION VOTING INFORMATION:

Ballots were mailed to all registered voters living in Council District IV on Thursday, March 21.

Ballots must be mailed back by Saturday, April 13, 6pm.

Early walk-in voting and late voter registration at Honolulu Hale from Monday, April 1-Friday, April 12, 8am-4pm excluding Sundays

Election Day voting at Honolulu Hale Saturday, April 13, 7am-6pm

Special Election info at honolulu.gov/elections.html

Paid for by Vote Sierra Club of Hawai'i, a grassroots political action committee, without the approval of any candidate.



O'ahu Group Outings

SEE PAGE 12 FOR GENERAL OUTINGS INFORMATION

View the latest hike listings and online registration options at bit.ly/SCH-Oahu-Hikes.

Unless otherwise stated in the outing description, participants meet at 8am at the back porch of the Church of the Crossroads, 2510 Bingham Street, Honolulu. Do not leave your car in the church parking lot.

Classification of outings: (E) Educational/Interpretation, (C) Conservation, (F) Family/Fun, (S) Service

Saturday, April 6

Pālehua 'Elepaio Enclosure "Akupu" Service (S)
Reservations required at least one week prior. Contact Randy for reservations. Space is limited as we will be working in a sensitive area where the endangered native 'elepaio is nesting and there are some native plants already growing which we don't want to disturb or damage. We will probably hear and see some native 'elepaio as we work in the area, so bring a camera as well. Pack a lunch and/or snack and definitely mosquito repellent. Bring gloves and hand tools for weeding alien plants in the enclosure. Leaders: Randy Ching, makikirandy@yahoo.com, 942-0145; John Shimogawa, 227-9925; Susan Tom

Sunday, April 7

Sandy Beach Cleanup (S)
We will clean up along highway and coastal areas until 10am. Bags and gloves provided. All participants under 18 must have a waiver signed by their legal guardian. No one under 18 will be allowed to clean on the highway and will spend their time cleaning the beach and park area. Closed-toe shoes only. No slippers or sandals of any sort. Meet at 8am at the Sandy Beach bathroom at eastern side of the beach park (the bathroom closer to Makapu'u). Call Tred 394-2898 for information. Leader: Deborah Blair, 392-0481

Saturday, April 13

MCBH Kāne'ōhe Bay Service Project (S)
Reservations required. Due to new MCBH regulations, all participants must register with DBIDS one week before outing to secure access to base. Contact Dan Anderson at 489-1695 or danderhi@gmail.com. We will be working with the Environmental Division helping clear wetlands of mangrove plants to create habitat for Hawai'i's endangered waterbirds. Because MCBH is a secured military facility, we must provide your name to the base in advance. We'll send you a waiver which you must bring with you. Leader: Deborah Blair, 392-0481

Saturday, April 13

Sierra Club/DLNR Ka'ena Point NAR Service Project (S)

Sierra Club members only. We will meet at 8:30am in Mokulē'ia with DLNR personnel and drive to the reserve. Albatross, and possible monk seals and humpback whales. More information provided to registered participants. Reservations required by April 7. Leader: Colleen Soares, csoares48@gmail.com

Tuesday, April 16

Tour de Trash: Recyclers & Waste Processors
Tuesday morning outing. Contact Colleen for reservations. Meet at Kapolei Hale in Kapolei at 8:30am. We will board a bus for this roving tour. "The Tour de Trash is a collaborative event, coordinated by the City and supported by island businesses engaged in recycling. The recyclers and waste processors tour follows the path of our 'ōpala from the blue, green, and gray carts to their respective sorting, composting, and waste-to-energy facilities. This tour is a great introduction to the City's main solid waste programs and starts off with a visit to the City's H-POWER waste-to-energy facility, where all of O'ahu's trash is incinerated to generate electricity." More at: bit.ly/tdt-416. Leader: Colleen Soares, csoares48@gmail.com

Saturday, April 20

Photography Hike: Lyon Arboretum (E/F)
Reservations required at least one week prior. Contact Curtis for reservations. The pace of photography hikes is extremely slow. Meet at the Church of the Crossroads at 9am. \$5 suggested donation to Lyon Arboretum. Learn about native and tropical plants. Bring raingear and insect repellent. Leaders: Curtis Kawamoto, curtis96815@gmail.com; John Shimogawa, 227-9925; Clyde Kobashigawa, clydekobashigawa@hawaii.rr.com; Stan Oka, 429-9814

Sunday, April 28

Wiliwili Ridge Seminar
Wai'ālae Iki, moderate/5 miles, ridge
This project is for those interested in becoming an outings leader or those who want to learn about the outings program. Leaders will describe how outings work, the Club's mission, what's required to become an outings leader. Participants will help with trail maintenance. Leaders: Ed Mersino, mersino@hawaii.edu; Randy Ching, makikirandy@yahoo.com

Saturday, May 4

UH Shidler Native Hawaiian Garden Service Project (S)
Help maintain the Hidden Gem at Shidler College of Business. There are approximately 80 species of Native Hawaiian plants; most of which are endangered. We will be planting new seedlings, spreading mulch, and pulling weeds. Meet at noon. Call Susan to make reservations. Leaders: Susan Tom, 753-0351; Clyde Kobashigawa, clydekobashigawa@hawaii.rr.com; John Shimogawa, 227-9925; Randy Ching, makikirandy@yahoo.com

O'ahu Group Outings

Saturday to Monday, May 25-27

Hakalau National Wildlife Refuge, Hawai'i Island (S)
The U.S. Fish and Wildlife Service manage this refuge. They have created makai-mauka corridors of native vegetation across open pastures which native forest birds use in their migrations up and down the slopes of Mauna Kea. The service projects usually involve planting native species or working in the greenhouse. Accommodations are at a well-equipped cabin at the 6,200-foot elevation with electricity, running water, a flush toilet, a hot shower, kitchen, and bunk beds with mattresses. Participants will need to bring their own sleeping bags. At this high elevation, cold wet weather is always possible, so warm clothing, footwear and good quality raingear are necessary. Raingear can be borrowed from the refuge. The free time activity may include a hike in a koa-ōhi'a forest to observe native forest birds, some of which are on the endangered species list. Leaders: Clyde Kobashigawa, clydekobashigawa@hawaii.rr.com; John Shimogawa, 227-9925

Sunday, June 2

Family Hike: Hau'ula Loop of Hau'ula-Papali Trail (F)
Hau'ula, easy/3.2 miles, 630 ft elevation gain
This short hike takes us to a ridge overlook for a snack break. Kids welcome -- will teach them about hike leading. If not old enough to complete the hike, a parent must be prepared to backpack them. Reservations required. Meet at 1pm. Leaders: Reese Liggett, wliggett@twc.com; Jean Fujikawa, jean.fujikawa@gmail.com

Saturday, May 11

Pālehua Service Project-Trail Clearing (S)
Reservations required at least one week prior—contact John. Space is limited due to parking and as we will be working along an existing trail that is not used very much and to also develop it as a fire break. Pack a lunch and/or snack and lots of water. Bring gloves, pruning saws, pruning shears, loppers, mosquito repellent, and lots of enthusiasm! The area is known for beautiful scenic panoramas from the ridge overlooking Nanakuli Valley. You may also hear and see some native birds, so bring a camera too. Meet at 8:30am. Leaders: John Shimogawa, 227-9925; Clyde Kobashigawa, clydekobashigawa@hawaii.rr.com; Susan Tom; Curtis Kawamoto

Sunday, May 19

Pūpūkea-Paumalu
Pūpūkea, moderate/8.5 miles, contour
This loop hike through the Pūpūkea-Paumalu Forest reserve will take us through a former cattle ranch to pillboxes with views of the North Shore. Leader: Gwen Sinclair, gsinclair@gmail.com, 753-0528



SIERRA CLUB
OF HAWAII
MĀLAMA I KA HONUA

SIERRA CLUB OUTINGS POLICY

The Sierra Club outings are conducted according to Club policy and under the direction of certified Outings Leaders. Our outings are group activities, and all participants are expected to follow leaders' instructions and to remain with the group for the entire outing. We welcome all the Sierra Club members, non-members, and visitors on most of our outings; however, certain outings may be restricted to members. Firearms, pets (unless specifically allowed), and audio devices with or without headsets are prohibited. Smoking is permitted only at breaks and then only if the smell of smoke cannot be detected by other hikers. Outing Leaders may prohibit smoking if, in their judgment, a fire hazard exists.

Bring with you: a liter of water (2 liters for strenuous hikes), lunch, sunscreen, insect repellent, raingear/jacket, and daypack. Boots, shoes with traction grooves (no loafers) or tabis are required. Unless otherwise noted, no bare feet or sandals of any type will be allowed.

You will also need to sign a liability waiver. If you would like to read a copy of the waiver prior to the outing please see content.sierraclub.org/outings/local-outdoors/resources or call 415-977-5630.

In the interest of facilitating the logistics of some outings, sometimes participants make carpooling arrangements. The Sierra Club does not have insurance for carpooling arrangements and assumes no liability for them. Carpooling, ride sharing, or anything similar is strictly a private arrangement among participants. Participants assume the risks associated with this travel.

For specific islands, each group may have its own outing policy. Please look at each group's page or website for more specific information on where to meet or what to bring with you.



Saturday, June 8

MCBH Kāne'ōhe Bay Service Project (S)

Reservations required. Due to new MCBH regulations, all participants must register with DBIDS one week before outing to secure access to base. Contact Dan Anderson at 489-1695 or danderhi@gmail.com. We will be working with the Environmental Division helping clear wetlands of mangrove plants to create habitat for Hawai'i's endangered waterbirds. Because MCBH is a secured military facility, we must provide your name to the base in advance. We'll send you a waiver which you must bring with you. Leader: Deborah Blair, 392-0481

Saturday, June 8

Photography Hike: Pālehua-Palikea (E)

Makakilo, moderate/2 miles, ridge
Reservations required at least one week prior. Contact Clyde for reservations. Space limited, so make your reservations early. The pace of photography hikes is extremely slow. Pack a camera, lunch and/or snacks, and water. Not for those uneasy about heights. Due to safety concerns, only adults will be accepted. Native plants, native happy face spiders, scenic panoramas, and native tree snails are the attraction in this preserve. Leaders: Clyde Kobashigawa, clydekobashigawa@hawaii.rr.com; John Shimogawa, 227-9925; Susan Tom; Curtis Kawamoto

Saturday, June 22

Photography Hike: Koko Crater Botanical Garden (E/F)

Hawai'i Kai, easy/2 miles, crater floor
Reservations required at least one week prior. Contact Clyde for reservations. The pace of photography hikes is extremely slow. Various plants and flowers from around the world. Plumerias and hibiscus should be in bloom this time of year. Good for macro photography! Leaders: Clyde Kobashigawa, clydekobashigawa@hawaii.rr.com; John Shimogawa, 227-9925; Curtis Kawamoto; Stan Oka

Saturday, June 29

Pu'u Mā'eli'eli Hike

Temple Valley, moderate/3 miles
Moderate 3-mile hike with scenic views of Kāne'ōhe Bay. Well take a break when we reach the top at the pillbox. The trail is rooty, has low branches, and is steep in some areas. A hiking stick/pole is recommended. Meet at Temple Valley McDonalds parking lot. Leaders: Susan Tom, 753-0351; Clyde Kobashigawa, clydekobashigawa@hawaii.rr.com; John Shimogawa, 227-9925

FUTURE NEIGHBOR ISLAND SERVICE TRIPS

In addition to the Hakalau trip in May, we have several other neighbor island service trips planned in 2019. Please check them out, save the dates, and make your arrangements!

Thursday to Sunday, August 15-18

Kahauale'a Natural Area Reserve System (NARS) Service Project, Hawai'i Island (S)

We will be working with NARS clearing mainly kahili ginger. We will access the area via Volcanoes National Park where it is an easy 1/2 mile hike from Thurston Lava tube to the work site. This is a relatively new NARS site that is dominated with the alien kahili ginger and a great way to see how it evolves into a truly native Hawaiian Natural Area Reserve. There are native birds above in the native 'ōhi'a lehua forest trees. Our accommodation will be at a house in Hilo at the NARS base yard. This trip requires a Thursday evening departure to the Big Isle. Leader: Clyde Kobashigawa, clydekobashigawa@hawaii.rr.com

Monday to Wednesday, September 2-4

Haleakalā National Park, Maui (S)

Our accommodation for the weekend is Kapalaoa Cabin, in the center of Haleakalā Crater. The work will be eradicating California telegraph plant and plantago. This service trip is for hikers in good physical condition and for those who don't mind "roughing it". We have a 7-mile hike in via the Sliding Sands Trail the first day and will exit via the Halemau'u trail. Participants will have to deal with the elevation. The cabin was built in the 1930's by CCC workers and is rustic. There are no washroom or shower facilities, but there is an outhouse. We have a 2-burner gas stove top and a wood burning stove to cook and keep warm. The reward is spending the weekend in a beautiful National Park trying to keep the native flora flourishing. Leader: Clyde Kobashigawa, clydekobashigawa@hawaii.rr.com

Wednesday-Friday, September 18-20

Haleakalā National Park, Maui

Our accommodation is at Kapalaoa Cabin situated in the center of Haleakalā Crater. The work will be eradicating California Telegraph Plant and Plantago. This service trip is for hikers in good physical condition and limited to 5 hikers. We hike in via the Sliding Sands Trail the first day and will exit via the Halemau'u trail. Participants will have to work at high altitude elevation. The cabin was built in the 1930's by CCC workers and is rustic. There are no washroom or shower facilities, but there is an outhouse. We do have a 2 burner gas stove top and a wood burning stove to cook and keep warm. The reward is spending a few days in beautiful National Park trying to keep the native flora flourishing. Leader: Dan Anderson, danderhi@gmail.com, 489-1695

Coconut Beach Resort & County Bike Path Oversight Lacking

Since 2005, the Kaua'i Group has been scrutinizing the missteps of this proposed 326-unit timeshare project at Waipouli. This year, the project may break ground if recent blunders can be resolved.

Last September the developer, SPD II Makaiwa Resort Development LLC, the Planning Department, and mayor were non-responsive to vigorous objections from the Kaua'i Group, the Outdoor Circle, the Wailua-Kapa'a Neighborhood Association, and residents who opposed the destruction of 33 coastal ironwood trees along this beach. Particularly since the arborist's report identified only 17 trees for removal, while the rest were deemed "healthy with good vigor".

Also, these trees were in the designated public access area—"an open area that runs laterally between 80-100 feet mauka from the certified shoreline... which will be continuously open at all times and dates for public access, passive recreation, non-commercial activities, and cultural practices."

Not only will the loss of these trees impact dune stabilization, eliminate shade for beachgoers, and diminish the buffer between fishers and the resort, the removal of the stumps and roots will cause subsurface disruption, potentially threatening iwi kupuna. In fact, half of this public access area is designated as State Historic Property due to its cultural value and areas of concentrated cultural deposits. Nonetheless, the Planning Department justified the trees' removal because they would "conflict with grading work".

Subsequently, the Kaua'i Group reviewed the resort's grading plans and found several major discrepancies. First, the location of dust fence was inaccurately delineated on the certified shoreline despite a clear mandate in the Kaua'i Group-SPD II shoreline settlement agreement that a minimum 5 foot setback is required.

Second, the grading plans call for approximately 3,500 cubic yards of coastline to be excavated with cuts 1-3 feet deep, clearly disregarding the State Historic Site designation for this culturally sensitive coastline.

In addition, the future Shared Use Path through this property must comply with the Section 106 Native Hawaiian Consultation Memorandum of Agreement which requires building the path on a berm or fill as a mitigation measure. Although the Kaua'i Group alerted all pertinent parties, only the Office of Hawaiian Affairs responded with concern at this lack of compliance, thus prompting the State Historic Preservation Division to belatedly confirm that the conditions of the signed MOA must be complied with.

Finally, the Kaua'i Group advocated to move the path further mauka within the resort's 100-foot setback area. We presented photographs showing evidence of ocean debris that washed up 60 feet landward

of the certified shoreline due to storms 500 miles offshore in 2015 and 2016. But, the County Planning Director wrote: "we do not concur that a redesign as requested is in the best interest of the County's needs. We maintain the design as approved in 2014 should be constructed as presented." So, despite sea level rise and climate change, the path will remain only 40 feet from the shoreline.

Since the printing of the Mālama, Makaiwa Resort Development LLC has defaulted on its loan and the lender is asking the court to place a lien on the property and force the sale of the land to settle Makaiwa Resort Development's debt. The future of this development is now unclear. Read more at bit.ly/tgi-326.



Destruction of coastal trees and stump removal will threaten State Historic Site SIHP #50-30-08-1800 disregarding a Memorandum of Agreement to avoid ground disturbance.

County's Proposed Fence at Lepeuli (Larsen's Beach) May Impact Historic Trail

A segment of the historic coastal Ko'olau trail may become blocked by a county fencing project that is still inching forward since 2014 when it was first proposed.

In December, the Kaua'i Group obtained the State Land Use Commission's October 2018 certified survey map for Boundary Interpretation No. 18-09. The map, prepared by the County Public Works Division and landowner Waioli Corporation delineates the Conservation District Boundary for the entire Lepeuli ahupua'a coastline. But, there were no photographs taken of this boundary delineation to provide a clear visual of its location related to the juncture of several beach access trails, including the historic lateral trail along the Lepeuli hillside above Larsen's Beach.

In anticipation of the County Special Management Area Minor Permit application for fencing, the Kaua'i Group wrote to the Planning Director requesting that the boundary be pinned or staked by a licensed surveyor and photographed, with the Sierra Club present on site with the survey team. This would help ensure that the fence is correctly sited mauka of the Conservation District and about 50 feet mauka of the historic trail.

There are additional concerns about this unnecessary fencing project. Special Management Area Minor Permit rules state that: "Analysis of potential impacts to endangered/protected species and habitats must be included..." If done properly, the application will include a thorough assessment of impacts to the known albatross nesting colony. A 2015 video (shown to the County Council and Public Works division heads) revealed that the previous fence thwarted multiple attempts of an albatross to launch. These birds need "a runway" with

Kaua'i Group Report & Outings

ample room to take off and land. Therefore, the U.S. Fish and Wildlife Service must be consulted because any disruption to these federally protected species is a "take" under the Migratory Bird Treaty Act.

Despite more than a decade of the Kaua'i Group's advocacy, efforts to survey the historic trail have been hampered by landowner opposition and the state's inaction. Now that Mark Zuckerberg owns adjacent coastal properties to the north, the trail is in greater danger of being privatized despite the state's authority to claim ownership of ancient trails, enacted in the Highways Act of 1892 which prescribes that all roads, trails, bridges, and other forms of public access that can be verified to have existed before 1892, continue to be owned in fee simple by the state.

The county fencing project is another attempt to obstruct perpetual public access along this historic, cultural, and recreationally important trail.



Fencing for "directional assistance" is unnecessary; trailheads are less than 200-feet from the parking area along a straight, hard-packed dirt path, 12-feet wide.

UPCOMING OUTINGS:

SEE PAGE 12 FOR GENERAL OUTINGS INFORMATION

Join us on one of these great outings to discover the natural treasures of our island. Mileage is total miles.

Outings focus on: (C) conservation/interpretative, (E) educational, (F) family/fun, and (S) service.

Requested donation for members and participants under 18 is \$1. For all others: \$5.

Saturday, April 6

Descent into Waimea Canyon: The Kukui Trail (C/E/F)
Intermediate/5.5 miles, +/-2300 feet elevation
We will hike from the rim of Waimea Canyon down to its base and admire the majesty of this canyon along the way. Leader: Julio Magalhães, 650-906-2594

Thursday, April 11

Nu'alolo & Awa'awapuhi Grand Loop (C/E/F)

Koke'e State Park, very strenuous/11 miles, +/-2000 feet
A serious hiker's dream, these Koke'e ridge trails take you to the most incredible vistas. A real endurance challenge. Leader: Lee Gately, 661-373-4834

Saturday, April 13

Kuilau Ridge Trail (C/E/F)
East side, easy to moderate/3.5 miles, +/-280 feet elevation
A gentle steady walk on a wide path with sweeping view of lush valleys and Mount Wai'ale'ale and Makaleha Mountain Ranges. This trail offers great rewards without a lot of effort. Glorious views and ever-present bird songs reward you along this trail. Hike to bridge and picnic tables for lunch. Leader: Vivian Hager, 808-652-3234

Tuesday, April 16

Māhā'ulepū Coastal Hike (C/E/F)
Po'ipū area, moderate/4 miles, mild elevation change
Spectacular coastal walk with breathtaking views along this magnificent coastline! Leader: Lee Gately, 661-373-4834

Friday, April 19

Sunset to Full Moon: Wailua to Nukoli'i Beach Walk (C/E/F)
East side, easy/1.5 miles
We'll meet at Lydgate Beach Park in the late afternoon and set off on a lovely walk along a pristine beach with no development in sight for miles. Learn how this beach was saved from being destroyed by a 6-foot high, 3/5th mile long sea wall fronting Wailua Golf Course that the County attempted to build in 1996. Before setting off on our walk, we'll have a picnic dinner (not a potluck – bring own food) at Lydgate. Leader: Judy Dalton, 808-482-1129

Sunday, April 21

Wai Koa Loop Trail (C/E/F)
North Shore, easy/4.5 miles, +/-200 feet elevation
We'll pass through the Kīlauea Forest and then the largest mahogany plantation in North America. Then, the trail opens up and we'll enjoy impressive views of the Mount Namahana, which means "the twin branches". Leader: Julio Magalhães, 650-906-2594

Saturday, April 27

Kuilau Ridge Trail (C/E/F)
East side, easy-moderate/3.5 miles, +/-280 feet elevation
A gentle steady walk on a wide path with sweeping view of lush valleys and Mount Wai'ale'ale and Makaleha Mountain Ranges. This trail offers great rewards without a lot of effort. Glorious views and ever-present bird songs reward you along this trail. Hike to bridge and picnic tables for lunch. Leader: Vivian Hager 808-652-3234

Saturday, May 4

Nāwiliwili Coastal Hike (C/E/F)
Easy/3 miles

Walk along the coast through lagoons and back to Kalapakī Bay. Leader: Vivian Hager, 808-652-3234

Sunday, May 5

Kālepa Ridge (C/E/F)
East side, intermediate/8 miles, +/-1000 feet elevation
Enjoy sweeping coastal and valley views along the ridge which continues the Sleeping Giant range from Wailua River to Hanamā'ulu. Leader: Julio Magalhães, 650-906-2594

Friday, May 17

Sunset to Full Moon Coastal Walk (C/E/F)
East Shore, moderate/4.5 miles one way
We start off in the late afternoon meeting at Kapa'a Library to shuttle our cars to Donkey Beach starting our walk from there and ending back at the library as we watch the moon rise over the ocean. Learn how the Planning Commission was legally challenged to assure increased building setbacks along the ridge to preserve the views on and along the coastline. We'll have a picnic dinner (not a potluck – bring your own food) at the lookout at Donkey Beach. Leader: Judy Dalton, 808-482-1129

Saturday, May 18

Honopū Ridge (C/E/F)
Koke'e State Park, strenuous/4 miles
Hike through beautiful native forests on unmarked Honopū Trail to a spectacular lookout of the Honopū Valley, overlooking the famed Nāpali Coast. Leader: Ken Fasig, 808-346-1229

Sunday, May 19

Po'omau Canyon Vistas Hike (C/E/F)
Koke'e State Park, intermediate/5.5 miles, +/-900 feet
We will explore spectacular views of the lovely Po'omau Canyon from both sides of the canyon. Leader: Julio Magalhães, 650-906-2594

Saturday, June 1

Makaleha Trail (C/E/F)
East side, intermediate/2.5 miles, +/-900 feet elevation
This hike has lovely views of several waterfalls as the trail makes its way along and through the Makaleha Stream. Often cited as one of top two hikes on Kaua'i but be prepared for an adventure on a wild trail that may require improvising. Leader: Julio Magalhães 650-906-2594

Saturday, June 8

Nāwiliwili Lighthouse Coastal Walk (C/E/F)
Moderate/3 miles
Hike from Kalapakī Beach to Nāwiliwili Lighthouse, then along the coast to Hanamā'ulu Bay with shuttle to return. Enjoy views along the rugged coast. Leader: Ken Fasig, 808-346-1229

Kaua'i Group Outings

Tuesday, June 11

Māhā'ulepū Coastal Hike (C/E/F)
Po'ipū area, moderate/4 miles, mild elevation change
Spectacular coastal walk with breathtaking views along this magnificent coastline! Leader: Lee Gately, 661-373-4834

Saturday, June 15

Sunset to Full Moon: Wailua to Nukoli'i Beach Walk (C/E/F)
East side, easy/1.5 miles
We'll meet at Lydgate Beach Park in the late afternoon and set off on a lovely walk along a pristine beach with no development in sight for miles. Learn how this beach was saved from being destroyed by a 6-foot high, 3/5th mile long sea wall fronting Wailua Golf Course that the County attempted to build back in 1996. Before setting off on our walk, we'll have a picnic dinner (not a potluck – bring own food) at Lydgate. Leader: Judy Dalton, 808-482-1129

Sunday, June 16

'Okolehao Trail (C/E/F)
North Shore, intermediate/5.5 miles, 1500 feet elevation
We will explore lovely panoramic views of the North Shore by following this ridge trail above the Hanalei Valley. Leader: Julio Magalhães, 650-906-2594

Saturday, June 22

Māhā'ulepū Coastal Hike (C/E/F)
Po'ipū area, moderate/4 miles, mild elevation change
Spectacular coastal walk with breathtaking views along this magnificent coastline! Leader: Vivian Hager, 808-652-3234

Thursday, June 27

Alaka'i Swamp Boardwalk (C/E/F)
Koke'e State Park, very strenuous/8 miles, 950 feet elevation change
The Alaka'i is a primeval habitat made accessible by boardwalks. The Alaka'i, one of the world's wettest spots, is not a swamp but a mountain rainforest rising 4,500 feet above the Pacific. A variety of native plants and birds can be seen only on this trail. Panoramic view of the North Shore is at trail's end, when the clouds cooperate. Leader: Lee Gately, 661-373-4834

Saturday, June 29

Nounou Mountain: East & West (C/E/F)
East side, intermediate/5 miles, 1000 feet elevation change
Nounou Mountain, which is also more popularly called "Sleeping Giant", offers spectacular panoramic views of the East Side of Kauai. We will explore the mountain on several trails. Leader: Julio Magalhães, 650-906-2594



Mākena Resort

Maui Group representatives and allies continue to implement parts of a 2017 settlement with the resort owners to preserve the area's history, public access to the shoreline, historic roads and trails, as well as opportunities for affordable housing. Recent months have focused on finding a Cultural Manager for the 47 acres of historically significant lands above Mākena Landing.

Wailea 670

As part of a 2016 legal settlement, Maui Group representatives and allies attended a site walk of the proposed 134-acre preservation area on the Wailea 670 land in March and submitted comments asking for many changes to the project's Archaeological Preservation Plan. Regular accesses and service projects continue on the land organized by the Maui Group.

East Maui Streams

Mahi Pono, the new owners of A&B sugarcane lands, have a vague farm plan but want the lion's share of public East Maui streamwater and are supporting bill HB1326 which extends their temporary leases on 33,000 acres of state land for another 7 years with no safeguards, monitoring or sharing with downstream residents, flora and fauna.

Action: Ask your State Senator to vote NO on the bill, unless it's amended to address community concerns. Sign the petition at mauisierraclub.org.

Nā Wai 'Ehā (Central Maui)

The streams of Central Maui have flowed fully this year due to the high rains, but our allies are still concerned that A&B is applying to the Water Commission for permits to divert over 46 mgd of Nā Wai 'Ehā waters, even though the water is only needed to irrigate 4,000 acres.

Lahaina Wastewater Suit

An appeal by Maui County seeks to avoid needing a permit to dump processed wastewater in injection wells (flowing to the ocean through a lava tube) will likely be heard in the US Supreme Court in the fall of 2019. Federal courts have ruled in favor of the Sierra Club and allies that a Clean Water permit is needed. Those rulings should be allowed to stand.

Future of the Former Cane Lands

A new company, Mahi Pono, formed by California-based Pomona Farms and a large Canadian pension fund investor, has acquired 33,000 acres of Central Maui farmland and 15,000 acres of East Maui watershed lands. The intent of the company is to implement diversified agriculture on the farmland. The Hukilike No Maui - Together for Maui coalition has been meeting with Senior Vice President of Operations Shan Tsutsui to push for

opportunities for Maui farmers, for setting aside coastal areas for conservation, and to discuss the possibility of a sustainable community, including affordable housing in Pu'unēnē near Kahului. Mahi Pono's General Manager Larry Nixon says the company will present its farming plan soon. The intent is to minimize pesticide usage and avoid using Roundup altogether. See above for issues around water being taken from public East Maui streams.

Anaergia at Kahului Wastewater Treatment Plant

The County is moving forward in an agreement with the Anaergia company to build a power plant on the site of the Kahului Wastewater Treatment Plant. Sorghum is to be grown by A&B (now Mahi Pono), shipped to the plant and processed anaerobically to produce heat to dry sewage into pellets and provide electricity for the wastewater operations. The Sierra Club, together with Maui Tomorrow, finds the Environmental Impact Statement prepared by the company to be woefully inadequate and misleading. Among other things, it only accounts for withstanding a 30-foot tsunami rather than a 50-foot tsunami that recent studies advise (this is right on the shoreline where nothing new should be developed). The plant will cost taxpayers considerably more than almost any other energy alternative, it puts an end to Maui's composting program for green waste, and it doesn't fully evaluate the impact on the surrounding air and water. We are asking the County to end the contract and to expedite plans to replace the plant with several smaller plants located safely away from the coast.

Reforestation Projects

The warnings from climate scientists on the rate and consequences of wide ranging climate change impacts continue to get more dire and more urgent. Hawai'i is more vulnerable than many other parts of the world to rising sea levels, extreme weather events, and higher than average temperatures. Much needs to be done at the political level to eliminate fossil fuel extraction and burning but we can all contribute to a better future for our islands by helping plant native trees to bind carbon, improve the soil, and reduce stormwater runoff. Check out the Outings Schedule in this and future editions of Mālama for opportunities!



Mākena Shoreline. Photo by Rob Weltman.

Annual Meeting

Members and friends gathered at the Pā'ia Community Center on February 24 to hear a presentation by world renowned ecological restoration pioneer Art Medeiros about what is at stake and what we need to do about it. Awards were presented to several Maui residents that have made exceptional contributions to protecting and enhancing our natural and cultural environment. Members and supporters also heard a summary of what the Maui Group has been working on the past year, met the 2019 Executive Committee, enjoyed fabulous donated and potluck food, and got to know other people on the island who also care deeply about the 'āina.



Lucienne de Naie presenting Hokuao Pellegrino with the Ola i ka Wai Award

Art Medeiros receiving the Lifetime Achievement Award from Annette Kaohelaulii



Elle Cochran receives the Malama Kahakai award

Mahalo nui to everyone that contributed to and attended the 2019 Sierra Club Maui Group Annual Meeting!

UPCOMING OUTINGS:

SEE PAGE 12 FOR GENERAL OUTINGS INFORMATION

Please register for all hikes with the leader listed in the description. Bring lunch, water, raingear, sunscreen, and appropriate footwear. Hiking boots are recommended for longer hikes. A donation of \$5 (\$3 for Sierra Club members) is requested of hikers over age 14 except where otherwise indicated.

Hike description key: (C) conservation focus, such as discussing how to conserve this land for future generations to enjoy; (E) educational, such as visiting and learning about archeological sites and naming the plants and flowers; (S) service outing (no donation requested), (D) round trip hike distance.

We always welcome more hike leaders! Contact sierraclubmauigroup@gmail.com if you are interested.

Check bit.ly/SCH-Maui-Outdoors for any schedule updates.

If the hike description states an EMI waiver is required:

East Maui Irrigation Company (EMI) allows access to their trails as long as each hiker has a waiver. An EMI waiver is absolutely required for EMI hikes. Call in your waiver request at 579-9516 well in advance to make an appointment to sign it. Then go to EMI's Pā'ia office at 497 Baldwin Avenue to sign the waiver. It is open Monday 11am-3pm and Friday 8am-1pm. Waivers cannot be mailed, faxed, or emailed. Please be considerate of EMI staff time and pick up the waiver 5 days in advance whenever possible. The waiver must be brought on the hike and shown to the hike leader.

Maui Group Outings

Friday, April 12

Wailea 670 Hike (C/E)

South Maui, 3-4 miles

Walk the boundary of the proposed 134-acre Wailea 670 preserve. Rugged terrain. Closed shoes/boots, long pants, and good balance a must. Bring water and a hiking stick. Meet 3 pm at top of Kaukahi Rd in Wailea. Limit 18. Leader: Lucienne de Naie with guidance by Hawaiian cultural practitioners, laluzmaui@gmail.com or 214-0147

Sunday, April 14

Honokāhau Ditch Trail (C/E)

West Maui, 4.5 miles

This is a 4.5 mile round trip, pedestrian paved, mostly flat walking trail that leads to a stream. Great views but fully exposed. We will carpool meeting at Mā'alaea at 8am. For those who do not want to carpool: coming into Lahaina, from the highway turn right on Kai Hele Ku St. and come up, around a rotary till you see some parking spaces on the right across from a small shady picnic area. On the left you will see the ditch trail sign. This is the Launiupoko neighborhood. About a 2 hour hike. Leader: Kalei Johnson kalei1908@gmail.com or 344-0006 (no text)

Friday, April 19

Mā'alaea to McGregor Point Coastline (C/E)

West Maui, 3 miles

Explore lovely hidden coves below Honoapi'ilani Hwy. Some uphill/downhill. Coastal views. Bring water and snacks. Meet at 9am at McGregor Point parking lot. Limit 18. Leader: Lucienne de Naie, laluzmaui@gmail.com or 214-0147

Saturday, April 20

Hāmākua Mālama Day (C/E/S)

Ha'ikū, 4 miles

Monthly community service outing to remove trash and keep coastal trails open on 267 acres of Hāmākua lands purchased by Maui County. Bring gloves, hand tools, water, hat, lunch, sturdy shoes. Meet 9am at Ha'ikū Community Center. Limit 15. Leader: Lucienne de Naie, laluzmaui@email.com or 214-0147

Sunday, April 21

Kanahā Beach Ramble (C/E)

North Shore, 3 miles

We'll go along the ocean but not walking on the beach. We will be in the trees seeing some historical features like the remnants of a crashed aircraft and bunkers from WW2. About a 3 mile jaunt, nothing difficult and we can extend the distance if desired. Meet at the Kanahā Beach Canoe pavilion at 9am. Leader: Kalei Johnson, kalei1908@gmail.com or 344-0006 (no text)

Saturday, April 27

Sierra Club Plant Sale at Ha'ikū Ho'olaule'a

9am-4pm. If you'd like to donate plants—especially food producing plants, non-invasive popular ornamentals, and native plants—or would like to volunteer, please contact Rob Weltman at plantsale@mauisierraclub.org or 354-0490

Saturday, May 4

Wailea 670 Service Day (C/E/S)

South Maui, 2-3 miles

Help care for Native Hawaiian sites in Wailea 670 preserve. All tools provided. Rugged terrain. Closed shoes/boots, long pants, and good balance a must. Bring water and a hiking stick. Meet at 4pm at top of Kaukahi Rd in Wailea. Limit 18. Leader: Lucienne de Naie with guidance by Hawaiian cultural practitioners, laluzmaui@gmail.com or 214-0147

Sunday, May 5

Kuiaha Bay (C/E)

North Shore, 4 miles

Moderate, some uphill. Historically rich, dazzling hidden gem along Ha'ikū coastline. Valley has had restoration work to traditional agriculture by Waikikena Foundation. Limit 18. Meet 9am Ha'ikū Community Center. Leader: Rob Weltman, robw@worldspot.com

Sunday, May 12

Kanaio Road (C/E)

Kanaio, 4 miles

Mostly dirt road, walking gently uphill all the way with great views, but not much shade. This road is just 5 min past the winery, it forks to the left off of Hwy 31. We will carpool from Pukalani Ace parking lot, meet at 9am. There is a meadow for lunch and for the whole outing, plan on 4 plus hours. Leader: Kalei Johnson, kalei1908@gmail.com or 344 0006 (no text).

Sunday, May 19

Holomua Rd, Old Maui High (C/E)

North Shore, 4-6 miles

This is a road walk up to the lovely historical buildings of the old high school. It can be done as a 4 or 6 mile round trip. Take the first right turn off of Hāna Hwy after passing Mama's Fish House and it is a gentle uphill walk all the way. Very nice views. Park on the side of the road. Hike leader will be waiting there not too far off the highway. Meet there at 9am. Leader: Kalei Johnson, kalei1908@gmail.com or 344 0006 (no text)

Saturday, May 25

Hāmākua Mālama Day (C/E/S)

Ha'ikū, 4 miles

Monthly community service outing to remove trash and

Maui Group Outings

keep coastal trails open on 267 acres of Hāmākua lands purchased by Maui County. Bring gloves, hand tools, water, hat, lunch, sturdy shoes. Meet 9am at Ha'ikū Community Center. Limit 15. Leader: Lucienne de Naie, laluzmaui@gmail.com or 214-0147

Saturday, June 1

Wailea 670 National Trails Day Special (C/E)

South Maui, 2-3 miles

Explore the historic Kalama-Kanaio Trail. Visit Hawaiian habitations, shrines and pathways. Rugged terrain. Closed shoes/boots, long pants, and good balance a must. Bring water, hiking stick, cameras. Meet 4pm at top of Kaukahi Rd in Wailea. Limit 18. Leader: Lucienne de Naie with guidance by Hawaiian cultural practitioners, laluzmaui@gmail.com or 214-0147

Sunday, June 2

Mākena Shoreline Hike (C/E)

Mākena, 3 miles

Moderate, pleasant walk on "fisherman's trail", road, sandy beaches, rocky beaches with uneven ground past tidepools to Keoneuli (Black Sand Beach). Beautiful views. Hiking stick useful. Meet 9am in public parking lot for Polo Beach, near entrance. Almost entirely exposed, so bring sun protection. We'll stop to eat anything we have with us at Keoneuli. Limit 15. Leader: Rob Weltman, robw@worldspot.com

Saturday, June 8

Kōkua Day at Fleming Arboretum, Pu'u Mahoe (C/E/S)

Help maintain the Fleming Arboretum at 2600 feet in 'Ulupalakua, sanctuary to many endangered native dry land forest plants. Awesome views of La Perouse (Keone'ō'io) coast and Kaho'olawe. Bring a light jacket, lunch, and gloves. Meet 9am at the 'Ulupalakua Ranch Store. Estimate 3 hours of work. Refreshments available. A BYO lunch will be at the Fleming cabin with a great view of South Maui. Limit 20. Leader: Rob Weltman, robw@worldspot.com

Sunday, June 16

Hana'ula Ridge Service Outing & Hike (C/E/S)

Help Maui Cultural Lands maintain native plant habitat on state land near Kaheawa Wind Farm. Hike to 'ōhi'a forest nearby. Panoramic views. Bring lunch and gloves. Be prepared for rain/mist and chilly temperatures. Meet 8:30am at Mā'alaea Ocean Center parking lot (Carl's Jr. end). Four wheel drive vehicles needed for access, please contact leader if you have 4WD. Limit 10. Leader: Lucienne de Naie, laluzmaui@gmail.com or 214-0147

Friday, June 21

Waihe'e Ridge Reforestation Outing (C/E/S)

This outing is organized by the West Maui Watershed Partnership. Our work for the day will involve some

combination of invasive species control: pulling, treating strawberry guava, *Clidemia hirta*, molasses grass, and other weeds, out-planting native plants, and/or collection of native seed for future out-plantings. We will eat lunch on the trail under some trees, work a little more, then head back down the trail. Wear sturdy, closed-toe shoes with good tread, long sleeve shirt and long pants. Bring at least 2L water, rain jacket, sun protection, lunch and snacks, and a backpack to carry everything. Meet at 9am at the gravel parking lot below the trail head, just outside Camp Maluhia, done around 2:30pm. Leader: Rob Weltman, robw@worldspot.com

Saturday, June 29

Hāmākua Mālama Day (C/E/S)

Ha'ikū, 4 miles

Monthly community service outing to remove trash and keep coastal trails open on 267 acres of Hāmākua lands purchased by Maui County. Bring gloves, hand tools, water, hat, lunch, sturdy shoes. Meet 9am at Ha'ikū Community Center. Limit 15. Leader: Lucienne de Naie, laluzmaui@gmail.com or 214-0147

Sunday, June 30

Makapipi Trail (C/E)

East Maui, 4 miles

Visit beautiful streams, pools, and waterfalls along this EMI trail beginning in Nahiku. Involves crossing trestles. Bring water, raingear, lunch, and water tolerant shoes. Meet 8am at Ha'ikū Community Center. EMI waiver required, see above. Limit 15. Leader: Lucienne de Naie, laluzmaui@gmail.com or 214-0147



Makapipi Trail. Photo by Rob Weltman.



SIERRA CLUB
OF HAWAII
MĀLAMA I KA HONUA

Moku Loa Group Report



Kealakehe Wastewater Treatment Plant Upgrade DEIS by Steve Holmes

Hawai'i County has taken its first step toward water recycling in Kona by increasing the level of pollutant removal. The Moku Loa Group has been pushing for this but the plan currently has major flaws and the Group has provided testimony outlining concerns.

Over 20 years ago, the Kealakehe Plant was intended to do recycling on a golf course next door but that fell through and they ended up dumping effluent into a hole in the ground. A USGS study showed that the effluent was carried by groundwater to the coast, which is now federally listed as impaired.

The new plan fails by segmenting infrastructure that is needed for successful reuse to a future date. The Draft EIS says some water will go to the Kohonaiki resort area but the County has no firm agreement to take it or pay reuse water rates for it. Cost recovery is critical, otherwise taxpayers foot the bill. Some of the water is also supposed to go to the Old Kona Airport Park but infiltration of saltwater into the collection system makes the effluent unusable. This problem could be solved but a solution is not in the proposal.

Finally, the County proposes to spend million of dollars on the upgrade and then use percolation ponds for disposal. Again, groundwater would carry that to the coast and there is no cost recovery with disposal. The proposed ponds rely on an unproven technology are unlikely to remove nutrients.

Hawai'i County does not have staff trained in reuse and they have not sought out experts who have a business model to make reuse successful. Honolulu entered into a public-private partnership at no cost to taxpayers and has the largest recycling plant in the state. This should be explored as it pays for itself through the sale of recycled water and frees up potable water in the process.

Kona has numerous failed water wells and using recycled water for irrigation really makes sense. Reuse would relieve pressure on drinking water supplies, keep up groundwater flows that support our coastal ecosystems, and protect sustainable yields of our aquifers.

Hawai'i County needs a plan that will work and does not have disposal through ineffective percolation ponds as the final result. It is time to end decades of pollution in our recreational coastal waters—the public trust doctrine in our State Constitution demands so.

Hawai'i County's 2% Land Fund is Under Fire by Debbie Hecht

The 2% Land Fund was created by citizens to protect natural resources, watersheds, open space, parklands and cultural sites. The original proposal was to have the County set aside 2% of property taxes each year to have a guaranteed source of funding to obtain matching funds to acquire property.

A small group of citizens met in 2006 and formed the Save Our Lands Citizens' Committee to run a petition initiative campaign. The group's petitions were signed by more than 9,600 of Hawai'i Island voters, however the County clerk disqualified more than 6,000 signatures stopping the petition. The County Council went on to put the 2% Land Fund on the ballot anyway. Then in 2008, Mayor Billy Kenoi halted deposits to the Land Fund as his first legislation. That is when the Group realized it needed a charter amendment, so that the fund that could only be changed by a vote of the people. A charter amendment was approved in 2010 but the Charter Commission put it on the ballot at only 1%. In 2012, the charter amendment was on the ballot at the full 2%. Each time, the Land Fund has been approved by 63% of voters—this is a citizen's mandate!

The Great Success of the 2% Land Fund for Hawai'i Island

Island residents have proposed 180 properties for acquisition with one 2,200-acre property in escrow. Since 2006 by resident's proposals, 4,428 acres of land has been acquired and an additional 2,200 acres is in escrow.

Money Spent:

- Hawai'i County 2% Land Fund \$ 27,389,268
- Grants from Matching funds \$8,764,083
- Private funds: \$2,000,000

Funding

In 2006, two percent of property taxes was \$2 million and now has increased to \$5 million per year. The highest and best use of 2% of taxpayer's funds is to use the 2% Land Fund to get dollar for dollar matching funds from US Fish and Wildlife and State Legacy Lands. There is public oversight of all the components of the 2% Land Fund Program by the Public Access, Open Space and Natural Resources Commission.

The Save Our Lands Citizens' Committee is alarmed to see that unspent money is piling up in the Land Fund and that there may be a deliberate attempt to avoid acquiring property. Only 14 of the 180 properties proposed have been acquired and there is presently \$19 million in the fund.

The funds may also be under threat. Mayor Kim has said that he wants to use the funds to make up for budget

shortfalls. He has also said that he wants to sell the land so the County does not have to maintain it. However, the Citizens' Committee has publicly reminded him that he needs a vote of the people to change the fund. Some Charter Commission appointees have proposed to cut the 2% Land Fund to 3/4%, use the money for disaster relief, and delete the perpetuity clause which prevents the County from leasing, selling, or trading these lands.

So far, the Citizens' Committee has lobbied successfully to get these amendments voted down as part of the current Charter Commission review. However, the Committee has been disappointed that since the inception of the Maintenance Fund, only 9% of all expenditures have gone to the nonprofits caring for these lands, which was the intent of the amendment.

The Save Our Lands Citizen Committee has proposed several charter amendments to strengthen the 2% Land Fund Program:

1. A full time employee to work only on the 2% Land Fund Program under the Department of Finance, who is paid from the 2% Land Fund.
2. Improve the Maintenance Fund to fulfill the original intent of the charter amendment to empower the nonprofit organizations who are already caring for the 2% Land Fund acquisitions. Stewardship grants should be offered for organizations to build buildings and toilet facilities and to pay workers, whether employees or members of the board.

Hawai'i is one of the most beautiful places in the world. Our treasured land should be preserved in perpetuity for our keiki and grandchildren. If you would like to help or learn how to develop a Land Fund Program, please get in touch at hecht.deb@gmail.com

For more information on the history, the process and the successes of the 2% Land Fund go to: bit.ly/debbiehecht

How can you help?

1. Attend Charter Commission meetings and testify, in person or by video at Hilo and Kona Council chambers on April 12th at 11am.
2. Attend public meetings. The Commissioners are saying over and over that they want to hear from the public. All meetings are at 5pm. To check for last-minute changes, call the County at 961-8223
April 1, Pahoa Community Center
April 2, Honoka'a Gym
April 3, Kona Council Chambers
April 4, Hilo Council Chamber
3. E-mail the Charter Commission and tell them your thoughts. Charter.commission@hawaiiicounty.gov

Debbie Hecht has been the Campaign Coordinator for the Save our Lands Citizens Committee and the 2% Land Fund since 2006. She and Councilmember Brenda Ford have written the enabling legislation.

Moku Loa Group Report

Update and Proposed Rules for Mauna Kea by Deborah Ward

The University of Hawai'i is proposing administrative rules for the "UH managed lands" within the Conservation District on land held in trust for Native Hawaiians and the people of Hawai'i. Many island residents believe that the University does not have jurisdiction to propose rules on leased land. While the proposed rules pertain to the public and commercial tours, they exclude all actions taken by the university, its students, or its agents. While the University has a non-exclusive easement to use the State of Hawai'i's road to the summit, the rule would authorize the university to gate the road and charge fees for entrance, parking, and use. Any activity not on a designated trail without a permit would be prohibited and subject to fine, as would any photography for commercial use. Cell phone use, flashlights, bicycles, and 2 wheel drive vehicles would be prohibited above the visitor center. DNLN personnel, and groups of 10 or more, would be required to consult with the president of the UH before entering. The president would have the sole discretion to select a hearing officer if the draconian rules and fines were challenged, and would also have sole discretion upon appeal. Public hearings on the rules will soon be announced.

The Thirty Meter Telescope board has yet to decide where to build. The Department of Health is considering a request to discharge stormwater from the TMT construction site into streams and rivers that drain into Pōhakuloa and Waimea, both of which are in critical habitat areas for the palila.

Hawai'i Island mayor Harry Kim spoke recently about Mauna Kea—he acknowledged both the science and the people for whom Mauna Kea is part of their soul, and he said "if you are going to trample on people's soul, all I ask it that is that you do it with care, and above all, with compassion". Public protests to the further industrialization of Mauna Kea are being held in Pasadena, where the TMT corporate headquarters is, and around the world to raise awareness on the significance and sacredness of Mauna Kea and to advocate for the protection of Mauna a Wākea. For more information go to maunakeaawarenessday.org.

The Hardest Day By Lisa Mason, Hawai'i Island High School Hikers Outings Leader

"E ola oe, e ola mākou nei" was the blessing offered as we peered down at a freshly planted wiliwili sapling. You live, so that we all may live. On Hawai'i Island, this contemporary saying, rich in ancient wisdom, is commonplace in today's conservation community and widely taught to students and volunteers who visit the forests. "It is a beautiful intention of recognizing the relationship between kānaka and 'āina", shares Lauren Kaponu, the Nā Kilo 'Āina South Kohala Program

ACQUISITIONS

1. Waipi'o Lookout, Hāmākua; 1,804 ac. (Oct. '07)
2. Kāwā, Ka'u; 234,293 ac. (Jan. '08)
3. Kaiholena, N. Kohala; 151 ac. (Jan. '10)
4. Pa'o'o, N. Kohala; 10.61 ac. (Nov. '10)
5. Kāwā Bay, Ka'u; 550,871 ac. (Oct. '11)
6. Kipapa Park, N. Kona; 6,0117 ac. (Jun. '13)
7. Kaiholena, N. Kohala; 76,615 ac. (Jun. '13)
8. 'O'oma, N. Kona; 217,566 ac. (Dec. '13)
9. White Sands, N. Kona; 10,775 ac. (Oct. '14)
10. Hāwi, N. Kohala; 911 ac. (Feb. '15)
11. Pohoiki Bay, Puna; 26,762 ac. (Nov. '15)
12. Kahua Olohu, Ka'u; 13 ac. (Jun. '16)
13. Kahuku, Ka'u; 3,127.95 ac. (Nov. '16)
14. Hale O Kaili, N. Kohala; 22 ac. (Apr. '18)



Moku Loa Group Report

Coordinator on Hawai'i Island.

On February 9th, Hawai'i Island High School Hikers attended the 8th annual Wiliwili Festival presented by the Waikoloa Dry Forest Initiative. We joined a tour of the Waikoloa Dry Forest Preserve and viewed reforestation sites from past years and could identify healthy looking



ma'o hau hele, 'a'ali'i, halapepe, and a flowering specimen of the critically endangered uhiuhi. A couple of weeks later, on February 23rd, our club, alongside visiting students from Cornell University and community members from the neighboring town of Waikoloa, volunteered for the Waikoloa Dry Forest Initiative's community work day. Lowland dry forests in Hawai'i are highly threatened and projects like this are essential for rehabilitation. We arrived in the early morning to the preserve to find our gloves, picks, and watering cans waiting for us at the gated entrance. Resting neatly in their plastic trays were over 100 young trees including the endemic 'ohai, koai'a, 'ohe makai, and maua. These dryland species are carefully grown by Rob Yagi, the lead field manager, and bonafide plant whisperer, who led our team in the day's reforestation efforts. "This is the hardest day in this plant's life," Rob explained to us volunteers while watering a pocket of soil, "and we want to help them out by giving them a lot of water." Water. A limited resource in the Waikoloa Dry Forest Preserve. Running along our site, I noticed black irrigation lines bringing fresh water from the local water company located adjacent to the preserve. The field crew waters newly planted areas daily for 6-8 months by dripline irrigation to support establishment. After that, they're on their own.

We learned that, in some cases, drenching the soil before placing the plant in its hole will help the roots grow downwards instead of horizontally, a necessity when the strong winds blow; and loosening up the root ball can help the tree grow stronger in the long term. By the end of the day, all 110 plants found new homes nestled amongst jagged 'a'a rocks. According to Rob, about 75% of plantings survive due to the intensive research, planning, and aloha from the community these projects receive. We had a great time, despite the heat and unstable terrain, knowing our work will make a difference. We were also pleased to learn of the Future Foresters program that operates out of Waikoloa

Elementary and Middle School for 4th-7th graders.

After a much-needed snack break, we marched uphill through seemingly endless tufts of fountain grass to the entrance of a 1,500-year-old lava tube. Resident barn owls had littered the inside with scattered bones, and are also known to share their space with visiting 'ua'u, or Hawaiian Petrels, as evidenced by the guano lined walls. The Waikoloa Dry Forest Preserve has 275 acres of protected, fenced lands where over 24 species of native plants, including nine endangered species, have been reintroduced. Mahalo to Waikoloa Dry Forest Initiative and all the volunteers. The Sierra Club Moku Loa Group, Hawai'i Island High School Hikers, and Christian Liberty Academy are pleased to be a part of this project's legacy. E ola oe, e ola mākou nei.

are also known to share their space with visiting 'ua'u, or Hawaiian Petrels, as evidenced by the guano lined walls. The Waikoloa Dry Forest Preserve has 275 acres of protected, fenced lands where over 24 species of native plants, including nine endangered species, have been reintroduced. Mahalo to Waikoloa Dry Forest Initiative and all the volunteers. The Sierra Club Moku Loa Group, Hawai'i Island High School Hikers, and Christian Liberty Academy are pleased to be a part of this project's legacy. E ola oe, e ola mākou nei.



Disability Access! And Other Outings News by Diane Ware, Outings Chair

2018 was an eventful year, with the eruption, closure of Hawai'i Volcano National Park, and storms. Due to these events, we had to cancel some outings. We are now back on the trails, and exploring changes to island landscapes. One recent outing to view Halema'uma'u from Crater Rim Road was well attended and included our first wheelchair participant. Check out our upcoming outings and please consider becoming a leader. Leaders have much freedom in choosing and planning outings to special places



of their choice, including backpacking, beach camping, hikes, or walks with different themes. There will be First Aid training on May 18, a great first step in leader certification. The written part, Outings Leader Training 101, can be completed online. To sign up call Diane at 967-8642.

Photo by Maile & Ray Carr

Moku Loa Group Outings

SEE PAGE 12 FOR GENERAL OUTINGS INFORMATION

Requested donation for members and participants under 18 is \$1. Donation for others: \$5.

For most hikes, bring 2 quarts of water, rain gear, sturdy hiking shoes, hiking stick, hat/visor, and lunch. For full descriptions and updates go to: bit.ly/SCMLG-outings

Classification of outings: (E) Education/Interpretation, (C) Conservation, (F) Family/Fun, (S) Service (no donation required)

Saturday, April 13

Stewardship at the Summit (S/E/C)

Hawai'i Volcanoes National Park, moderate/1-2 miles
We will be doing service in the park in conjunction with Hawai'i Volunteer Week. Work consists of ginger cutting for 3 hours and requires up to 1 mile of hiking. This event is sponsored by HVNP. Wear hiking boots, bring water, gloves, raingear, and snacks or lunch. Leader: Diane Ware, 967-8642. Please register by April 5.

Saturday April 13

Kalapana Coastal Day Hike (E/F/C)

Puna District, easy/ 6 miles
This hike begins at Kalapana. We will hike out to the beach at Kaimu, then explore the shoreline south of Kaimū over rough lava. In many places lava has changed the coastline. We will have lunch at a secret kīpuka and then return. Leaders: Michael and Sunny LaPlante, 964-5017

Saturday, April 20

Kalōpā Nature Trail and Old Jeep Road and Gulch Trail (E/F)

Hāmākua District, easy/4 miles
First, we will start by visiting the kōlea, kōpiko, and ferns following a trail through Kalōpā State Park's native forest. After a short break, we will continue on the old jeep road to the highest elevation in the park passing through groves of 70 year old eucalyptus, silk oak, and paperbark trees. After lunch at the top, we will descend back to the cabins along the Hanaipoe and Kalōpā gulches. Leader: Linda Larish, 966-6337

Saturday, April 27

Snorkel Puakō (C/E)

South Kohala District, easy/sea level
This beautiful bay and reefs near the Kohala resorts always holds surprises for those willing to get in the water. This outing is part of our series devoted to the appreciation of the marine life of Hawai'i's 'Gold Coast'. We especially want to invite participation of experienced 'water-persons' with knowledge and memories of this special place. Together we will investigate and assess the richness of the reef and its marine ecology. Bring standard outings

such as water, sun protection, and snacks as well as personal snorkel gear, fish ID cards, and an underwater camera if you have one. Leaders: Rob Culbertson, 805-316-1380 and Diane Ware, 967-8642

Sunday, May 5

Escape Road to Pu'u Huluhulu (E/F)

Hawai'i Volcanoes National Park, moderate/7.5 miles
We'll do this as a car shuttle from the Devastation Trail parking lot to the Mauna Ulu parking lot. We will start out hiking in the beautiful rainforest, traverse a pahoehoe lava field and then climb Pu'u Huluhulu where we can eat lunch. Leaders: Linda Larish, 966-6337 and Diane Ware, 967-8642.

Sunday, May 12

Pu'u Huluhulu Day Hike (E/F/C)

North Hilo District, easy/1 mile
On Saddle Road, by mile marker 27.7. A short double loop trail, constructed by the Youth Conservation Corps, encircles both crests of the hill. The trail provides an excellent opportunity to view native plants and birds which were once abundant prior to the introduction of livestock and the lava flows of 1843 and 1935. A slow paced hike suitable for photography, sketching, and relaxing with family and friends. Mothers are especially welcome. Leaders: Michael and Sunny LaPlante, 964-5017

Saturday, May 18

Outing Leaders Training

First Aid and CPR at the University of Hawai'i Hilo for leader certification. This is an all day class, so bring a lunch and water. The cost is covered by Moku Loa Group from donations collected on outings. New leaders are encouraged to come. Call Diane Ware to register if you are interested in becoming a leader, 967-8642.

Friday, June 7

Explore Pohoiki (E/ F)

Puna District, moderate/ 3-4 miles
We will explore Pele's 2018 lava flow at Pohoiki, see new beaches Pele made, and hike up Mango Road for views of the area. Lunch will be on the beach. Sturdy boots are required for traversing rough lava, wear sun protection, bring water, and swim gear is optional. Leader: Diane Ware, 967-8642.

Friday, June 21

Pu'u Maka'ala NAR (E)

Ka'u District, moderate/5-7 miles, 4,600 ft
Join us and see the "walking 'ōhi'a" trees in 'Ola'a forest. Wear good hiking shoes, bring a lunch, and at least 2 liters of water. We will meet at Cooper Center in Volcano Village and carpool to the trailhead. Leader: Linda Larish, 966-6337

Invasive Insects Threatens Native Naio Plants Found on O'ahu

by Erin Bishop, OISC Outreach Specialist

Myoporum thrips, *Klambothrips myopori*, also known as naio thrips, were detected on O'ahu on November 23rd. Since then, multiple agencies and many private citizens came together to check 619 naio (*Myoporum sandwicense*) plants across O'ahu. Only 42 plants were positive for naio thrips. Positive detections were found in Kalihi, Moanalua, Pearl City, downtown Honolulu and Waikiki.

Sites around these infested plants within the same watershed have been checked and are clear. These are isolated points within these watersheds, the whole watershed is not infested. Most importantly, significant natural sites such as Ka'ena Point and the Kaiwi shoreline do not show signs of thrips.

Native to New Zealand, naio thrips have caused widespread damage on the popular landscaping *Myoporum* plants in Southern California and in the San Francisco area. They were first detected on Hawai'i Island in March of 2009. Naio thrips can be found on many *Myoporum* species, but is especially noticeable on our native naio species *Myoporum sandwicense*. Larvae and adult insects feed on the leaves causing lethal damage. The damage is noticeable leaf curling and gall formation at the terminal ends of the plants and are noticed before any insects are seen.

In Hawai'i, this recent pest can potentially have devastating effects on our native naio trees which are an important component of lowland and coastal dry forest. The O'ahu Invasive Species Committee is asking the public to report locations of any naio plants on O'ahu and to send photos of any suspect damage. Please report locations and photos by emailing oisc@hawaii.edu, texting 808-286-4616, or online at 643pest.org.



Healthy naio plants at Mokulē'ia. Photo by Nate Yuen.



ROD survey crew on Kaua'i



Protection forester Seanne Igne surveys for ROD suspect trees



'Ōhi'a tree suspected to be infected by ROD

Rapid 'Ōhi'a Death on Kaua'i

by Kim Rogers, Kaua'i ROD Outreach Specialist

In Hawaiian culture, the saying *pōki'i ka ua, ua i ka lehua* translates to “the rain, like a younger brother, remains with the lehua.” It hints at the intimate connection between freshwater and 'ōhi'a.

Endemic to Hawai'i, the 'ōhia lehua, *Metrosideros polymorpha*, is a flowering tree in the myrtle family. As an early colonizer after a new lava flow, it's known as a keystone species of the Hawaiian forest and is considered critical to the function of Hawaiian watersheds and the ecology of Hawai'i. 'Ōhi'a produce a dizzying display of flowers, made up of a myriad of stamens that range in color from fiery red to bright yellow. The flower's nectar provides sustenance to native honeycreepers like the vermilion-colored 'iwi. Its limbs provide nesting habitat to the critically-endangered 'akikiki. And behind the 'ōhi'a's scraggly bark, insects—many native—offer foraging opportunities for the 'elepaio, a small, gray-brown flycatcher.

The 'ōhi'a, celebrated in hula and mo'olelo, is also intricately tied to the Hawaiian culture. Its root “ohi” relates to “gathering” or “collecting.” And this points to 'ōhi'a's importance in gathering and collecting water for our watershed.

Unfortunately, a fungal disease known as Rapid 'Ōhi'a Death (ROD) is killing Hawai'i's sacred trees. First detected on Hawai'i Island more than five years ago, ROD has since affected more than 135,000 acres of 'ōhi'a forest on the largest of Hawai'i's islands.

In 2018, ROD was confirmed in four distinct locations on Kaua'i—Moloa'a State Forest Reserve and on land behind Anahola Mountain; in Halelea Moku in the northern part of the island; and near the Lihū'e-Kōloa Forest Reserve on the south side. The diseased trees are found at elevations ranging from 550 to 1,600 feet above sea level.

Rapid 'Ōhi'a Death targets Hawai'i's sacred 'ōhi'a exclusively. It enters the tree by way of a wound and grows in the vascular system of the tree, blocking the flow of water. The ROD-causing fungi cannot be seen from the outside. External symptoms include the sudden browning of leaves on limbs or a tree's entire crown.

Scientists at the U.S. Department of Agriculture have identified two different species of fungi that cause ROD, *Ceratocystis huliohia* and *Ceratocystis lukuohia*. Both species are new to science and both species have been detected on Kaua'i.

The difference between the two pathogens is how they move through the tree and how quickly they kill. Whereas *C. huliohia* may take months to years to kill an 'ōhi'a tree, *C. lukuohia* can kill a tree in a matter of weeks.

The Kaua'i ROD Working Group does not know exactly when or how the disease arrived on Kaua'i—whether it was the result of human activity or whether it arrived on its own, perhaps blown in with the wind. Three of the four sites on Kaua'i where ROD has been found are located in a mix of native trees and plants like 'ōhi'a, koa, hala, and uluhe that are being crowded out by non-natives such as albizia, java plum, strawberry guava, and octopus trees. Unfortunately, any loss of a native tree will give rise to the faster-growing invasives unless aggressive native tree plantings take place.

Kaua'i's rapid response team includes scientists and managers from DLNR/DOFAW, U.S. Fish and Wildlife, KISC, The Nature Conservancy, National Tropical Botanical Garden, Kaua'i Watershed Alliance, and the University of Hawai'i. The team is conducting aerial drone flights and helicopter surveys using digital mobile sketch mapping and has identified various areas on state and private lands with 'ōhi'a trees showing symptoms consistent with the disease. In order to confirm ROD, samples of the wood must be taken by trained technicians and tested in a laboratory to confirm the presence of the ROD fungi.

Kama'āina and visitors can help prevent the spread of ROD by following these key five guidelines:

1. Keep your eyes open. If you see 'ōhi'a with a limb or crown suddenly turning brown, take a picture, and contact KISC via email at saveohia@hawaii.edu or phone 808-821-1490.
2. Avoid injuring 'ōhi'a. Wounds serve as entry points for the fungus and increase the odds that the tree will become infected and die from ROD. Avoid pruning, blazing trails, and scuffing roots wherever possible.
3. Clean gear and tools, including shoes and clothes, before and after entering the forest. Brush all soil off tools and gear, then spray with 70% rubbing alcohol. Wash clothes with hot water and soap.
4. Wash your vehicle with a high-pressure hose or washer if you've been off-roading or have picked up mud from driving. Clean all soil off tires—including mountain bikes and motorcycles—and vehicle undercarriage.
5. Don't move 'ōhi'a wood or 'ōhi'a parts, including adjacent soil. The disease can be spread to new areas by moving plants, plant parts, and wood from infected areas to non-infected areas.

2019 Crossover Check-in: Bill status at this session's halfway point

BILLS THAT SURVIVED CROSSOVER

Crossover is often used as a halfway point in our legislative session, as bills that were introduced in the House “crossover” to the Senate and vice versa. Bills introduced in one chamber are now up for consideration in their non-originating chamber. Below is an update of our surviving bill priorities as of first crossover.

CARBON FREE HAWAI'I

Carbon Pricing

- **HB 1584** - University of Hawai'i to conduct a comprehensive study of a statewide carbon tax.

Clean Energy

- **HB 550** - Public Utilities Commission to study implementing Renewable Portfolio Standards for gas utility companies. Accelerates the renewable energy goals for 2030 and 2040.
- **HB 556** - State to adopt appliance efficiency standards.
- **SB 1323** - State to adopt appliance efficiency standards.
- **HB 307** - Broadens the definition of “renewable energy” to include other self-replenishing non-fossil fuel resources.

STREAM & MARINE ECOSYSTEMS

- **HB 1326** - Allows continuation of holdover permits for stream diversions.
- **HB 808/SB 489** - Prohibits and establishes penalties for any person who knowingly captures, possesses, abuses, entangles, or kills any shark within state waters. Expands the existing protection for rays within state waters.
- **HB 551** - Extends lapse date for a sewage contamination study in nearshore marine areas.
- **SB 696** - Extends life of cesspool conversion working group, provides funds for sewage contamination study in nearshore marine areas and completion of the comprehensive cesspool conversion plan.

WASTE & RECYCLING

- **HB 762** - Prohibits providing straws unless requested.
- **SB 11** - Ban on polystyrene foam.
- **SB 367** - Single-use plastics ban.
- **SB 522** - Single-use plastics ban and establishes plastic waste reduction working group.
- **HB 630** - Repeals glass container program.
- **SB 893** - Recycling 1 & 2 bottles with caps.

■ **Sierra Club of Hawai'i supports this bill**

■ **Sierra Club of Hawai'i opposes this bill**

PLANNING FOR RISING SEAS

Sea Level Rise Disclosures in Real Estate Transactions

- **SB 1126** - Requires seller disclosure in sea level rise exposure areas to ensure that new property owners/transferees understand the special hazards, requirements, and limitations that may affect the property.
- **SB 1339** - Requires a purchaser statement with the sale/transfer of vulnerable coastal real estate.
- **SB 1340** - Requires mandatory seller disclosures in real estate transactions within a sea level rise exposure area.

Strengthening Coastal Zone Management Laws

- **HB 549** - Requires new developments to plan for the impacts of projected sea level rise and prohibits development in areas significantly affected by projected sea level rise.
- **SB 393** - Prohibits development in areas significantly affected by projected sea level rise and requires new developments to plan for the impacts of projected sea level rise.

Sea Level Rise Planning

- **HB 461** - Requires the Hawai'i Climate Change Mitigation and Adaptation Commission to work to address the impacts of sea level rise.
- **HB 765** - Requires sea level rise projections in all new plans and updates to existing state plans.
- **HB 1487** - Establishes pilot project to develop a plan to protect Honolulu from the acute impacts of climate change including sea level rise.
- **SB 944** - Requires the Hawai'i Climate Change Mitigation and Adaptation Commission to prioritize nature-based solutions in climate change mitigation and adaptation efforts and promote investments in nature to reduce the risks of climate change.
- **SB 1054** - Requires the State and counties to incorporate sea level rise and other climate change hazards and mitigation opportunities into applicable plans, strategies, and mapping.

ADMINISTRATIVE

Creation of State Department of Environment

- **HB 1586** - Establishes and transfers some state agency programs to a “Department of Environment”.

DLNR Funding

- **HB1171** - DLNR-DOFAW operating budget bill that would provide \$5M to programs including:
 - Hawai'i Invasive Species Council prevention, early detection-rapid response, control, and outreach;
 - Rapid Ōhi'a Death research and response; and
 - Wildfire response.
- **SB923/SB924/SB1490** - DLNR operating budget bills including funding for HISC, ROD, Legacy Land Conservation Fund, and other DLNR priorities.

COMMON GOOD COALITION

Automatic Voter Registration

- **HB 1217/SB 412** - Automatic Voter Registration for driver's license and ID applications.
- **HB 1485** - Establishes a process for automatically preregistering public school-enrolled students who are at least 16 years old.

Taxation of Real Estate Investment Trusts

- **HB 475/SB 301** - Disallows dividends paid deduction for real estate investment trusts.

Social Services

- **SB 390** - Supplemental Nutrition Assistance Program beneficiaries to receive “double bucks” for purchasing Hawai'i-grown produce.

BILLS THAT DIED AT CROSSOVER

CLIMATE CHANGE

- **SB 930** - Requires Hawai'i Climate Change Mitigation and Adaptation Commission to assist the State and counties with implementing sea level rise adaptation plans and climate change mitigation efforts.
- **SB 690** - Implements recommendations of the Hawai'i Sea Level Rise Vulnerability and Adaptation Report.

STREAM PROTECTION

- **HB 848** - Prohibits dispositions authorizing the diversion of water from streams unless certain conditions are met. Requires funds collected through dispositions to go into the Forest Stewardship Fund, after the Department of Hawaiian Home Lands and Office of Hawaiian Affairs each receive their constitutionally-entitled share.
- **SB 915** - Prohibits BLNR from approving dispositions that authorize the diversion of water from streams except under specified criteria. Deposits moneys collected via land dispositions that authorize the diversion of water from streams into the forest stewardship fund.

These bills did not make it to the other chamber. Most of them were heard in at least one committee. Similar bills may still be alive and it is possible that some of this bill language may be included into surviving bills during committee considerations.

CLEAN ENERGY

- **HB 563** - Prohibited burning coal in Hawai'i after 2022.
- **SB 1289** - Prohibits the issuance of building permits for new single-family homes that are part of a development of twenty or more dwellings and do not include a rooftop solar energy generation system beginning in 2022.

DLNR FUNDING

- **SB 1068** - Appropriates funding to Na Ala Hele to improve access and maintain state recreational trails statewide and promote hiker safety and etiquette.
- **SB 1386** - Allocates one per cent of the revenues of the transient accommodations tax for deposit into the special land and development fund to develop a natural resources conservation goal action plan.

There is just over one month left in the 2019 legislative session—plenty of time to have your voice heard on issues you care about. Learn about bills, upcoming hearings, legislative how-tos, and sign up for our email alert list at hawaiicapitolwatch.org



Explore, enjoy and protect the planet



With your help we can clean up our water

Sierra Club Water Sentinels are the first line of defense of America's waters. We live on the water planet. However, water is a finite resource with only about 1 % of the world's water actually being available for human consumption. Water pollution & over-use are threatening both the quality & quantity of our water resources at an alarming rate.

Keep our water safe. Join Sierra Club.

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____

Email _____



Join today and receive a FREE Sierra Club Weekender Bag!

Check enclosed. Please make payable to Sierra Club

Please charge my: Visa Mastercard AMEX

Cardholder Name _____

Card Number _____ Exp. Date ____/____/____

Signature _____

Membership Categories	Individual	Joint
Special Offer	<input type="checkbox"/> \$ 15	N/A
Standard	<input type="checkbox"/> \$ 39	<input type="checkbox"/> \$ 49
Supporting	<input type="checkbox"/> \$ 75	<input type="checkbox"/> \$ 100
Contributing	<input type="checkbox"/> \$ 150	<input type="checkbox"/> \$ 175
Life	<input type="checkbox"/> \$ 1000	<input type="checkbox"/> \$ 1250
Senior	<input type="checkbox"/> \$ 25	<input type="checkbox"/> \$ 35
Student	<input type="checkbox"/> \$ 25	<input type="checkbox"/> \$ 35
Limited Income	<input type="checkbox"/> \$ 25	<input type="checkbox"/> \$ 35

Contributions, gifts & dues to Sierra Club are tax deductible; they support our effective, citizen based advocacy & lobbying efforts. Your dues include \$ 7.50 for a subscription to SIERRA magazine & \$ 1.00 for your Chapter newsletter.

Enclose a check and mail to:
Sierra Club, PO Box 421041
Palm Coast, FL 32142-1041
or visit our website: www.sierraclub.org

It's Time to Retire The Red Hill Tanks

by Kirsten Fujitani, Chapter Communications Manager

The Honolulu City Council recently adopted Resolution 18-266 that urges the U.S. Environmental Protection Agency and the Hawai'i Department of Health to not only reject the Navy's proposal to maintain status quo at the Red Hill Bulk Fuel Storage Facility but to support the relocation of the tanks away from the aquifer if secondary containment upgrades are not feasible. By passing this resolution, the Honolulu City Council becomes the first legislative body to publicly support the relocation of the tanks. This marks incredible progress in our fight to protect O'ahu's drinking water and shows that our public pressure is working.

Here are some of the voices who helped make this big win possible:



Carol Fukunaga Honolulu City Council Member

The City Council has steadfastly backed the Honolulu Board of Water Supply's forceful arguments to protect O'ahu's precious and limited supplies of drinking water. I acknowledge that the Navy has expressed with confidence its proposed fixes. But the high degree of public information and outreach conducted by BWS is an important reason for continued skepticism over existing maintenance practices, as was testimony from concerned groups like the Sierra Club, in shaping the Council's final decision. In the end, the Honolulu City Council agrees that relocation of the fuel tanks to alternative sites, or the higher cost of the double-lining solution, makes practical sense. Unlike fuel tanks, the aquifer is priceless and irreplaceable.

Jun Shin Young Progressives Demanding Action

I am 19 years old. In 20 years, I will be 39. I cannot wait that long for water security. Whether it is growing our own food, diversifying our agriculture, or climate change mitigation, a vision for the future becomes visionless without water. By 39, I may have a family and kids of my own, and I don't want to pass this issue along to them. For future generations, I have an opportunity to step up and do something about it right now so I'm going to do the best that I can to learn and help make a difference.



Ann Wright Veterans for Peace

I served 29 years in the U.S. Army and Army Reserves. The Red Hill tanks have served the U.S. military for 75 years, more than twice as long as I did. I'm now 72 years old and have had a normal number of aches, pains, and surgeries. The storage tanks have had their own share of ache, pains, and repairs—which didn't turn out well when a patch job caused 27,000 gallons of fuel to leak from a single tank. Those of us in our 70s know all about leaks — it's a hazard of age. After 75 years of service, it's time to retire the Red Hill Storage tanks.



Nate's Adventures: Mōlī Nesting Season

by Nate Yuen, Chapter Conservation Chair

After decades of severe decline, Laysan albatross, *Phoebastria immutabilis*, are coming back.

Mōlī are re-colonizing multiple sites across the Pacific and on O'ahu. The first chicks to fledge on O'ahu were at Ka'ena Point in 1992. They also nest at Mokulē'ia, and Moku Manu. They are now nesting at Kahuku Point.

When I heard adults were nesting, I went to Kahuku Point to see. I was thrilled to see adults tending to their several days old chick. It was sweet to see the adult stroke the chick with its beak and fluffs its down. Albatross adults are devoted parents and spend much of their time caring for their chicks.

Parents take 2 week shifts – one sits on the egg/chick while the other hunts for food at sea. When the adult flies back it regurgitates what it caught and feeds it to the chick.

Chicks grow quickly over the next few months where they lose their down and grow feathers. Here's hoping many chicks fledge this year, and return to Kahuku Point in 5 years to re-establish the colony.



Nathan Yuen is an artist/photographer/naturalist whose body of work is a confluence of hiking, conservation, and fine art photography. Each weekend you can find him hiking, backpacking, or kayaking to out-of-the-way locations to photograph Hawai'i's native plants and animals, many of which are rare or endangered. His goal is to showcase these biological treasures to give you a reason to protect them for future generations. You can view his art and read about his adventures at hawaiianforest.com.

Supreme Court Ponders Maui's Poop Water

by Marti Townsend, Chapter Director

For decades residents of West Maui have watched their once vibrant coral reefs brown and die. It took a dedicated team of concerned citizens and scientists to sleuth out the cause. After decades of study and analysis, scientists finally pinpointed the cause of the mass reef die-offs and it is really gross when you think about it.

For decades, the County of Maui has been injecting partially-treated human wastewater into groundwater near the shoreline. That wastewater-filled groundwater flows toward the sea, likely through lava tubes, and then discharges into the ocean through a series of naturally occurring holes in the porous lava rock. Once in the ocean, this effluent deposits extremely high levels of nitrogen and phosphorous onto the reefs. This high nutrient load triggers massive algal blooms that in turn absorb all the oxygen in the area, suffocating almost everything living on the reef.

With incontrovertible evidence in hand, these tenuous advocates for the ocean begged and pleaded with county, state, and federal officials to stop injecting effluent into the groundwater because it was killing the reefs. They started to get action under the administration of Mayor Charmaine Tavares with promises to reuse 100% of the wastewater being injected, but

The green algae *Ulva fasciata* blooming in the nearshore waters of Kahekili Beach in Lahaina. Photo courtesy of Earthjustice.



Degraded coral reefs at Kahekili Beach Park in West Maui. Photo courtesy of Earthjustice.

impasse built upon impasse until nothing was happening; all the while, more coral reefs were dying and more surfers were with coming down with staph infections and other illnesses.

So, the concerned citizens took their evidence to federal court and they won. Their argument is that the Clean Water Act requires the county comply with the National Pollution Discharge Elimination System when it injects wastewater into underground injection wells. In lieu of paying hefty federal fines, the County agreed to a negotiated settlement with the concerned citizens that called for investment in water re-use facilities.

Instead of immediately investing in better methods of wastewater management and water reuse, the County of Maui decided it would appeal the court's decision first. The County has spent at least \$4 million in taxpayer dollars on attorneys from the continent to fight against protecting Maui's ocean. Taking this position has also put the County of Maui in league with a long list of polluting industries that have weighed in on the County's side,

including the American Iron and Steel Institute, American Petroleum Institute, National Association of Manufacturers, National Mining Association, and the Fertilizer Institute.

As a result of the County's appeal, later this year, Hawai'i Wildlife Fund v. County of Maui will be heard before the U.S. Supreme Court.

In the meantime, we continue to plead with the County of Maui to stop paying for fancy lawyers on a losing lawsuit and instead invest in good wastewater treatment and water re-use facilities.

Sincere mahalos to all the dedicated individuals and organizations that have seen this fight all the way through, including: Hawai'i Wildlife Fund, West Maui Preservation Association, Sierra Club Maui Group, Surfrider, and Earthjustice.



SIERRA CLUB OF HAWAII
MĀLAMA I KA HONUA. Cherish the Earth.

P.O. Box 2577
Honolulu, HI 96803

Non-Profit
Organization
U.S. Postage
PAID
Honolulu, HI
Permit No. 1284

sierraclubhawaii.org • facebook.com/sierraclubhawaii

MĀLAMA I KA HONUA "Cherish the Earth" | A Quarterly Journal of the SIERRA CLUB OF HAWAII | APRIL-JUNE 2019



Hawai'i Youth Climate Strike

On Friday, March 15, 1.4 million students across 2,233 cities and 128 countries walked out of school to demand climate action, in hopes of gaining the attention of local legislators and world leaders. This movement was prompted by Greta Thunberg, a 16-year-old Swedish student who is speaking out about climate change inaction, including skipping school to protest outside the Swedish parliament. Students all over the world have followed her lead to encourage their own government to enact legislation that will work towards more carbon-neutral societies.

Here in Hawai'i, over 400 people gathered at the State Capitol to demand climate action from officials. Scientists, activists, legislators, and, most importantly, students spoke about their climate goals and called on lawmakers to work towards a more sustainable future. Much has been done in Hawai'i to address the threat of climate change, but there is still so much more we can do.

Greta Thunberg's message was shared throughout the world. Youth must stand up for their future and demand action from legislators. On that same day, in response to the day's demonstrations, UN Secretary-General Antonio Guterres announced that a climate action summit would take place later this year. The youth were heard!

-Olivia Stoetzer, St. Andrew's Priory Senior

Aloha! My name is Kawika Pegram and I was the lead organizer for Hawai'i's Youth Climate Strike! It was an honor to organize this very widespread event. However, it would not have been possible without our wonderful co-sponsors: 350 Hawai'i, the Sierra Club of Hawai'i, Local 5, and the Surfrider Foundation. Our event featured speeches, open-mic, sign-waving, and chanting—all in an effort to show our legislators that there is massive support for new and unprecedented climate legislation.

A big message we wanted to send was that we only have 11 years until a lot of climate change impacts become irreversible, and the only way to limit the effects is to decrease our current greenhouse gas emissions to 50% by 2030. To do this, requires an unprecedented amount of support and action for climate science from both our state and national legislators. This is not possible without our lawmakers knowing that there is broad support behind them. So, that's why tens of thousands of students across the U.S. and over one-million students worldwide went out on March 15th to show their support for new pro-climate legislation.

Our event specifically focused on the students and youth of today, and what we can do in order to push our agenda. We had state representatives from across party lines urge the youth that there's something to be done, and that they're all for it. We had a climate scientist tell us about a future which we could never have imagined otherwise, and show us that it is possible if we all work towards our green-goals. We also had youth speakers from as young as 11 tell us that we can do it; that the goals we have in our minds are entirely possible and we need to start today.

Though this was a big event across the world, we are not even close to done. The youth of today, tomorrow, and the next 100 years will work towards bringing back our 'āina to its former, beautiful glory. And we will only be able to do this if we, people of all ages, work together to lower our greenhouse gas emissions, decrease our plastic use, and encourage everybody to think with the future in mind. Mahalo nui loa for reading this, and have a prosperous tomorrow.

-Kawika Pegram, Waipahu High School Junior



More photos from the
2019 HAWAII YOUTH CLIMATE STRIKE

See back for more

