

Environment



Hawai'i

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Biomass

For six years after the Legislature passed a law encouraging the development of biofuels, the only response seemed to be a big yawn. Then, suddenly in September, the floodgates opened.

First one, then another – and now no fewer than six companies have publicly expressed an interest in laying claim to state-owned lands. No two of the companies have the same approach, but the competition is fierce nonetheless. And, as the biofuel proposals grow, so, too, do the concerns of ranchers, farmers, and others who fear the loss of a way of life should any or all of the plans come to fruition.

Now it's up to the Board of Land and Natural Resources and its staff to come up with an equitable way to satisfy the growers as well as the law. Unless, that is, the legislators once more change the rules of the game.

Legislators Rap Land Board Action To Move Forward with Biofuel Leases

Efforts of the Board of Land and Natural Resources to carry out the wishes of the state Legislature have earned the displeasure of – well, legislators. At a hearing last month in Hilo, three members of the Senate Committee on Water, Land, Agriculture, and Hawaiian Affairs grilled Laura Thielen, chairperson of the Land Board, over last November's approval in principle of leases of tens of thousands of acres of land along the Big Island's Hamakua Coast to two biofuel companies, Hamakua Biomass Energy, LLC, and SunFuels Hawai'i, LLC. Hamakua Biomass is planning to burn eucalyptus to generate electricity, while SunFuels is proposing to convert biomass to biodiesel.

Clayton Hee, committee chairman, expressed concern that the expedited lease approval process employed by the Department of Land and Natural Resources was excluding other legitimate players in the bioenergy field, amounting to a "first come, first served" policy. Thielen strongly disagreed with that characterization: "It's not first come, first served," she replied. "Nothing prevents other companies from joining in the negotiations" that were made possible by the Land Board action on November 14, she said at the hearing held December 17 at the University of Hawai'i-Hilo.

When asked by Sen. Dwight Takamine, who represents the Hamakua area, why the Land Board members did not delay the vote until they could have a meeting in the area or at least until the Big Island board member was present, Thielen answered: "The Board of Land and Natural Resources – or my reason for my vote, I felt it was important to begin hard discussions about a more productive use of land through mixed use." The Land Board, she added, indicated it would hold a meeting on the Big Island

before any final decision.

Thielen clarified that the board's action in no way meant that holders of existing leases would be forced off the land. "Leases are a contractual agreement," she said. "Nobody is forcing anybody" to do anything, she added. Time and again, Thielen referred to a situation that developed in Kalepa, Kaua'i, where a biofuel company sought to use state lands encumbered to ranchers and farmers. The board sponsored negotiations between the company and the existing users, resulting in a "win-win" situation whereby existing users received improved infrastructure as compensation for ceding parts of their land to the biofuel company, which, she added, was now supplying about 10 percent of the electricity used on the island.

In any event, she said, the board was only doing what it was instructed to do by the Legislature itself when, in 2002, it passed amendments to Chapter 171-95, *Hawai'i Revised Statutes*. The main thrust of the amendments were to make it easier to put biofuel crops on state land by allowing the Land Board to lease those lands by direct negotiation with interested biofuel companies instead of putting them up for auction.

Joshua Strickler, an energy project facilitator with the Department of Business, Economic Development, and Tourism, was asked by Thielen to help the DLNR qualify the various proposals it was receiving from companies interested in using state lands for biomass production. At the Hilo hearing, Strickler did not hesitate to agree with Hee's suggestion that the policy for awarding leases was "first in, first out." "Those who waited are too late," Strickler told Senators Hee, Takamine, and Russell Kokubun, the three committee members present. "We're

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Environment Hawai'i



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NEW AND NOTEWORTHY

Virgin Paper Chase: Once again, the Department of Accounting and General Services is seeking an exemption from the requirement that it purchase paper with recycled content for printing state checks. According to the exemption request that state Controller Russell Saito submitted to the state procurement office last month, Xerox, whose equipment the state uses when printing checks, can't guarantee that a security measure will be effective if the checks are printed on paper containing recycled content.

The security feature is called MICR, for magnetic ink character recognition. A letter attached to the exemption request from Ian Yee, Xerox Document Solutions sales manager in Honolulu, says that while his company's high-speed printers can run on a variety of paper stock, "we highly recommend the use of virgin paper... Our MICR guarantee is based on the printing being within tolerances of the check scanners used by the banking industry to automate processing." Also, he says, "More jams will occur when using recycled paper."

A quick internet search easily turned up check suppliers who manage to employ the MICR system on paper with recycled content. But Kurt Muraoka, a DAGS accounting system manager, told *Environment Hawai'i*, "we don't want to run the risk" of something going wrong.

"Basically, we try to stay within the standards of Xerox," he said. "If we have problems, we call them for support. They do maintenance on the systems. We stick to whatever they recommend. They're not benefiting from this at all, we don't buy paper from them."

When banks process checks, he said, their machines read the MICR line on the bottom of each check. With recycled paper, "there's no guarantee that it will be free of MICR content in that area, which can distort the information picked up by the bank readers."

"We print over a million checks a year – thousands each day," he said. "We can't afford to have any down time."

According to the exemption request, DAGS estimates that the cost of the paper it needs for checks will be around \$35,000 for the 2009-10 fiscal year.

NELHA Pipeline Repair: After three or four do-overs (depending on who's counting), the Natural Energy Laboratory of Hawai'i Authority has finally awarded a contract for repair of the damage to its deep-water pipelines that occurred in the October 2006 earthquake.

The winning bidder is Harbor Offshore, Inc., the same company that got the nod in the second bid, which was voided by NELHA after a competitor's protest called attention to flaws in the bid process. (The first bidding was cancelled for flaws before a winning bid was selected.) Harbor Offshore was the

same company that NELHA administrator Ron Baird wanted to award the job to in his request last September to have the State Procurement Office approve a non-bid "emergency exemption."

In the NELHA board's December meeting, Baird did not identify the winning bidder, who had not yet been formally notified. He did say, however, that "we have a very clear and present low bidder, within the amount of monies we have to do the earthquake repairs." The winning bid came in at \$275,256.

Regardless of how "clear and present" the winning bid seemed to Baird, "it's not over yet," says Patrick Ross, vice president of Sea Engineering, Inc., which also bid on the project. "I have asked for a debriefing" to learn more about the basis on which Harbor Offshore was awarded the bid. That could lead to a formal challenge, he said.

The subject of NELHA pipeline repairs was discussed in the November issue of *Environment Hawai'i*, available online at www.environment-hawaii.org.

Fishing for Data: In March 2007, when the state adopted new rules regulating the use of lay gill nets, several fishermen and fisherwomen vowed to continue using their nets in their traditional fashion, despite the consequences. The rules require, among other things, lay net fishers to register their nets with the state Department of Land and Natural Resources' Division of Aquatic Resources and prohibit the use of lay gill nets at night, a condition that some fishers said would turn them into criminals.

Gary Moniz, head of the DLNR's Division of Conservation and Resources Enforcement, says he has no idea how many lay-net related citations his officers have issued since the Board of Land and Natural Resources approved the rules. However, he told *Environment Hawai'i*, his officers do occasionally confiscate unmarked nets and people receiving citations "usually know that what they were doing is illegal." He adds that his division is working to implement a software system that will help track DOCARE's actions.

DAR records indicate that more than two thousand fishers are trying to comply. According to DAR's Francis Oishi, as of November 19, 78 lay gillnets had been registered in Hilo, 24 in Kona, 71 on Lana'i, 628 on Moloka'i, 591 on O'ahu, and 710 on Kaua'i. None have been registered on Maui since the rules ban the use of lay nets there.

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Quote of the Month

"I'm not against the marina development per se. I'm against dirty water going into the ocean."

— *Michael Kumukau'oha Lee who opposes HASEKO Inc.'s plans to shrink the 'Ewa marina by 17 acres*

A Guide to Saving Moloka'i's Fringing Reef

The Coral Reef of South Moloka'i, Hawai'i: Portrait of a Sediment-Threatened Fringing Reef. U.S. Geological Survey, Scientific Investigations Report 2007-5101. Michael E. Field, Susan A. Cochran, Joshua B. Logan, Curt D. Storlazzi, editors. 180 pages, paperback.

Books produced by government agencies don't often make best-seller lists, but a volume that the U.S. Geological Survey has recently published could be the exception, at least on Moloka'i.

The contributions to *The Coral Reef of South Moloka'i, Hawai'i: Portrait of a Sediment-Threatened Fringing Reef* were obviously edited to make them comprehensible to laymen, while at the same time maintaining the strict scientific rigor of peer-reviewed articles. The editing is mostly successful, though in a few areas the text is still a tough slog. What is more likely to cause readers to shy away from the printed version is the book's unwieldy format: 11 x 17 inches (nearly a full yard long when spread across the desk), on heavy coated paper with spiral binding, and weighing more than three pounds. The appeal of this format to authors is understandable: many of the maps and illustrations can be reproduced at a size that does not compromise legibility. And certainly the quality of the printing and beauty of the photographs available in the hard copy format are far greater than what is available by downloading the book from the internet. (The entire volume is available as one huge – 73 megabyte – file, or as more bite-sized individual chapters. See: <http://pubs.usgs.gov/sir/>

2007/5101/.)

The preface, by editors Michael E. Field, Susan A. Cochran, Joshua B. Logan, and Curt D. Storlazzi, describes the history of the project. "The importance of identifying and monitoring the effects of land-based pollution has become crucial within the United States... In Hawai'i, local representatives of the U.S. Coral Reef Task Force specifically developed and established a Local Action Strategy (LAS) and steering committee to address land-based sources of pollution and their impact on reefs... Moloka'i was designated one of the key LAS sites."

Concern over sedimentation of Moloka'i's vast fringing reef was expressed nearly three decades ago by Jacques-Yves Cousteau, the editors note. "With the arrival of Westerners, upland soil was plowed for sugar cane and pineapple. The impact of the resulting erosion has been tragic. Since 1897 the shoreline of Moloka'i has advanced as much as a mile and a quarter across the reef flat. Elsewhere off Moloka'i, the reef is overlaid with four to 27 inches of red-brown silt."

Not until 1999 did a consortium of USGS, university, and other agency scientists begin their in-depth study of the Moloka'i fringing reef, intended to describe the processes affecting reef health in sufficient detail to point the way toward corrective actions. "We hope this volume will be of benefit first and foremost to the people of Moloka'i," they write. "The fringing coral reef bordering the south shore of their island is perhaps the most magnificent coral reef in the Hawaiian Island chain... Some of the causes of reef degradation are global, but many remain local. It is largely through local decisions and local actions that protection of coral reefs can be assured for future generations."

Back in Time

Several of the qualities that make Moloka'i's fringing reef unique in the entire Hawaiian archipelago are described as the result of the island's ancient origins. Only Moloka'i is oriented along an east-west axis, which protects the south shore from the pounding energy of North Pacific swells. The huge cliffs along the island's northern coast are the result of a catastrophic landslide, which

scattered huge chunks of volcanic rock up to 90 miles across the sea floor, as one chapter notes. On the south slopes of the island (made up of the remnants of two volcanoes), millennia of weathering led to the development of channels, streams, and coastal plains.

From the cores taken from the fringing reef, scientists were able to trace its evolution over millennia. Mary Engels and Charles Fletcher, professors in the University of Hawai'i's Department of Geology and Geophysics, looked at the reef in two areas of western Moloka'i – Hale O Lono, and Wai a Kane – and found that despite the proximity, the characteristics of the fringing offshore reefs varied widely. At the more westerly Hale O Lono, where North Pacific swells curl around the western end of the island, the reef was determined to have been formed over three millennia, from 800 years ago to 4800 years ago. At Wai a Kane, 10 kilometers to the east, the reef dates back just 1000 years.

Their findings point to one of the key factors limiting the growth of reefs: currents and wave energy. For the most part, the south shore of Moloka'i lies in a "wave shadow," but still remains vulnerable to storm waves from hurricanes or Kona storms, write Paul Jokiel, Eric Brown, Ku'ulei Rodgers and William Smith, all of the UH Hawai'i Institute of Marine Biology. But, as with ill winds, it is the ill current that brings no good: "such extreme events," the authors write, "can also remove years of accumulated sediment and thereby rejuvenate coral growth on a reef." And such rejuvenation is a welcome event indeed, since sedimentation, coming from unchecked upslope runoff, is such a large problem for corals along most of the South Moloka'i shore.

"The shallow inshore reefs of Moloka'i have been profoundly affected by increased runoff and sediment from two centuries of improper land management practices. A major impact to the inshore is the extreme sedimentation of fine mud," the authors write. In addition, "biological factors" play a role in the welfare of the reef. If too many herbivorous fish are removed, that could "tip the balance in favor of the algae" that can smother the coral, they note.

A Damaged Reef

In three areas – at either end, and in the middle – the reef is characterized by low coral cover. The lack of corals at the two ends can be easily explained to the destructive impact of the waves coming around the eastern and western sides of the island. The

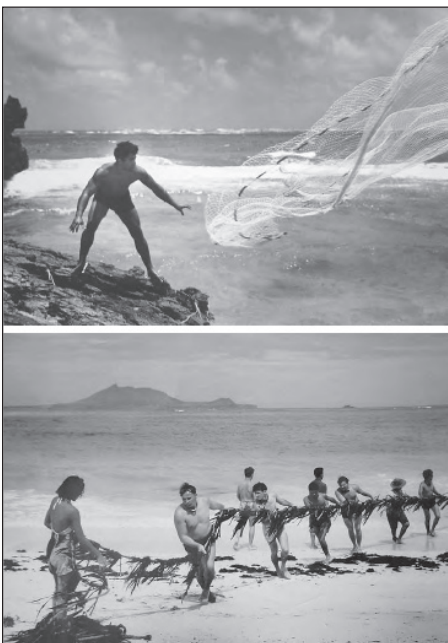


PHOTO COURTESY OF HAWAII STATE ARCHIVES

Hawaiians have traditionally harvested the sea for sustenance and cultural purposes.

absence of coral in an area from Kaunakakai to Kawela is not so easy to explain, write Jokiel and co-authors.

Accounting for damage to the coral is a far easier task, especially given the wealth of suspects. "Initially the problem was overgrazing by cattle and sheep, but overgrazing continues to this day as a result of uncontrolled feral ungulates (deer, pigs and goats) that are rapidly increasing in number on the watersheds," they write. Sugar and pineapple plantations aggravated runoff problems, recent reports of introduced algae "could negatively affect the shallow inshore reef communities," and the "effects of future climate change on the coral reefs of south Moloka'i could be disastrous if current warning trends continue. Hawaiian reefs have already begun to experience the impact of mass bleaching events."

Then there's dredging, such as that which occurred near Kamalo in the 1960s, leaving a scar in the reef flat still clearly visible. Fine silt from the dredging drifted west, killing the coral in its path. "The area took on the appearance of a wasteland," the authors write: "everything was covered with fine silt, and the fish left the area... Chronic turbidity and fine sedimentation prevented any recovery of the reefs for many years."

More than a century ago, in recognition of the problem of runoff, the American Sugar Company introduced mangrove trees to Moloka'i to stop sediment from entering the water. And while the mangroves are extremely effective in capturing sediment, they have brought other problems: many of Moloka'i's historic fishponds are being taken over by mangroves, and the broad reef flat itself is being reduced in size as the mangrove forests march into the sea – by as much as 200 meters at Pala'au.

Trends in Coral Cover

Still and all, some areas of the Moloka'i reef boast high coral coverage, among the most densely packed coral communities in the state, according to Brown, Jokiel, Rodgers, Smith, and Lucile Roberts, who monitored the reef at three sites on Moloka'i as well as at more than 50 other sites statewide for five years as part of the Coral Reef Assessment and Monitoring Program, or CRAMP. But, they note, "the Moloka'i sites may not be faring as well as other sites in Hawai'i. From 2000 to 2002, the six [Moloka'i sites] ... experienced the largest decline (by island) compared to the other 54 CRAMP stations on Kua'i, O'ahu, Kaho'olawe, Maui, and Hawai'i."

Globally, reefs in Hawai'i "appear to be doing better than reefs in other parts of the

world," the authors write. Of 20 regions considered in the most recent worldwide review, "Status of Coral Reefs of the World: 2004," "the Hawai'i region had the highest percentage of reefs (93 percent) at low or no threat level. Only 1 percent of the reef area in the region is considered destroyed."

Yet Moloka'i's south shore "was included in the 5 percent of Hawai'i's reefs at the threatened stage," they note. While local residents are working to reduce the threats "by changing upslope land use patterns and limiting coastal development," their actions may not be enough, "because changes in global climate are elevating water temperatures in Hawai'i above critical thresholds for corals... In addition, long residence time and resuspension of sediment may compound the problem."

Not Just Corals

Moloka'i's fringing reef is more than just corals. "The broad reef fringing the south shore of Moloka'i is probably the most productive reef flat in the Main Hawaiian Islands for the harvest of reef fish and invertebrates," write Rodgers and Alan Friedlander in their discussion of Moloka'i fisheries. And as important as the fish are for the diet of Moloka'i residents – one study suggests that families of subsistence fishermen eat up to 200 pounds per person per year of reef fish and akule – protection of the fish is also important as part of efforts to conserve marine biodiversity on a global scale. The authors note that as a result of Hawai'i's geographic isolation, "the proportion of endemic fishes (found nowhere else on earth) in Hawai'i is the highest of any known tropical marine ecosystem... The loss of endemic species not only affects Hawai'i but also represents a loss of global genetic diversity." Surveys along the Moloka'i coast down to roughly 200 meters found that endemic species accounted for 37 percent of fish (by number) and 29 percent of total fish biomass.

Statistics on commercial fish catches were reported at around 150,000 pounds a year in the early 1980s. Two decades later, the average annual commercial harvest was reported at around 22,000 pounds, Friedlander and Rodgers note. They add, however, that such statistics are unreliable as indicators of fishery health, since often commercial catches are under-reported. What's more, recreational and subsistence catches are almost never reported, even though estimates have placed them at more than four times the commercial harvest.

Overfishing of some species can lead not only to depletion of the fish, but to damage

to the reef itself. Grazing fish, such as surgeonfish, parrotfish, and sea urchins, help suppress algae, write Jennifer Smith, Heather Spalding, Ryan Okano, and Celia Smith, all affiliated with the University of Hawai'i's Department of Biology. Loss of grazers, they write, "can allow algae to begin overgrowing corals and eventually cause a phase shift in which long-lived, slow-growing corals are replaced by fleshy, fast-growing seaweeds," and the influx of nutrients from land can speed the process.

Moloka'i's "wide, shallow reef flat is one of the largest continuous shallow-water habitats for the endemic seagrass *Halophila hawaiiiana* in Hawai'i," one of the species of seagrass, or limu, that forms a part of the Hawaiian diet, the authors point out. Today, however, introduced algae are threatening this habitat: though the actual cause is unclear, "it could be a result of increased nutrients, sedimentation, or perhaps a lack of herbivores in these areas," they note.

In the deeper offshore reefs, the authors found many species of seaweed, including some that they suspect have never before been identified.

Something for Everyone

In their analyses of factors having the potential to affect the health of Moloka'i's reef, the USGS left practically no stone unturned. One chapter addresses suspicions that reef sediments may contain toxic materials from agriculture or other sources. (The answer? Not likely.) Another looks at the effect that flows of freshwater (from streams or seeps) could have on reef health.



A diver using an underwater video camera to record benthic cover.

Draft Water Quality Monitoring Protocol For West Hawai'i Draws Praise, Protests

Days before the departure of the Big Island administration of Mayor Harry Kim, the Hawai'i County Planning Department released draft guidelines for monitoring water quality in West Hawai'i. The "Revised Monitoring Protocol Guidelines" would, if adopted, establish more uniform reporting standards for developers and other large landowners whose Special Management Area permits include water-quality monitoring requirements.

As the document explains, the need for uniform, consistent data on marine life and water quality was identified more than a decade ago in meetings of the West Hawai'i Coastal Monitoring Task Force. Guidelines developed back then have been used since to evaluate water quality monitoring plans submitted by SMA permit applicants.

But the reaction to the November draft has been mixed. While some officials praise the proposed guidelines as a huge step forward, the responses of others, including permit holders, have been cooler.

Among those welcoming the proposal is Bill Walsh, the aquatic biologist in Kona who works for the state Department of Land and Natural Resources' Division of Aquatic Resources. "A lot of the existing monitoring is piecemeal, hodgepodge," Walsh told *Environment Hawai'i*. Walsh praised county planner Dana Okano, who was in charge of the project, for taking that and achieving "quite a convergence of methodologies" in the draft guidelines.

In Honolulu, Watson Okubo, with the

state Department of Health's Clean Water Branch, was more skeptical. "My initial impression is, it's rather ambitious," Okubo said in a telephone interview. "So much so, I'm asking, what are they doing all of this for? What are they trying to accomplish? If you do everything that's in there, it'll cost somebody a lot of money."

In fact, Okubo seemed skeptical about the very need for monitoring water quality in West Hawai'i at all. "The water quality is such that, it's good quality already," he said. "To me, I think the developers or whoever owns these companies should be asked to spend money in other areas that would help

*"When you talk about water quality and compare Kona water with O'ahu water, it's like night and day."
— Watson Okubo, DOH*

the environment. When you talk about water quality and compare Kona water with O'ahu water, it's like night and day.... On O'ahu, it seems any good rain will turn Kaiaka Bay turbid and yucky. Look at Ke'ehi Lagoon – a little rain makes the place look like soup. So, generally speaking, Kona is pretty clean."

A Need for Change

In 2004, the county asked the University of Hawai'i at Hilo Marine Science Department to evaluate the data collected by SMA permit holders in West Hawai'i. Thirteen projects were identified as having a monitoring component in their SMA permits. Of

those, however, monitoring reports from just three – Waikoloa resort, the Natural Energy Laboratory of Hawai'i Authority, and Hokuli'a, the controversial agricultural subdivision – "contained sufficient data over a sufficient duration to evaluate temporal trends for water quality and compliance with [Hawai'i Department of Health] water quality standards; none of the other developments even came close to having sufficient data for these types of analyses." (Actually, the reports from NELHA stopped in 2002. For the period 2002 through 2006, NELHA did not file timely annual reports, and instead make up the deficiency with one huge make-up report in March 2007. As of mid-December, it was again in arrears on its reports.)

After two years of work, in April 2006, the university evaluators made three recommendations to the county:

First, the guidelines developed in 1992 should be "revised, amplified, enhanced, adhered to, and enforced," with the guidelines being provided to developers before they apply for SMA permits.

Second, "a countywide coastal water monitoring program needs to be developed to monitor long-term environmental changes at existing and future developments." This, the report said, "will provide crucial data for evaluation of environmental conditions and impacts on coastal resources and water quality. We suggest that the program be directed by Hawai'i County and funded from fees charged to existing and future resorts and developments in West Hawai'i."

(Again, probably not much – so long as it doesn't carry a lot of sediment with it.)

One chapter examines in detail the probable impact of a severe Kona storm on the reef, while another entire chapter is devoted to a discussion of mangroves.

In short, the USGS has produced not so much an atlas as an encyclopedia that will be useful for generations to come – as a baseline for future scientific work, as a social history, as an inventory of reef flora and fauna, and as an analysis of the island's geological origin and fate.

Time and again, authors refer to the efforts the people of Moloka'i are making to protect this incredibly valuable resource,

unique in the archipelago. Upland reforestation, removal of goats and other feral ungulates, fishpond restoration, and local involvement in managing harvests of reef resources are but a few of the hopeful developments mentioned.

The editor's long list of acknowledgements gives some idea of the widespread support and buy-in that the authors of these varied reports enjoyed from the people of Moloka'i. They range from standard to oddball: from the FedEx employees who "carted our endless boxes of instruments and gear," to Moloka'i General Hospital, which "provided us with x-rays of cores."

Over the years, as the populations on

other islands have sought out economic development and wealth, the residents of Moloka'i have jealously guarded the island's rural character and slow pace – and have relied on the abundant resources of their vast fringing reef to support them in hard times.

As they continue to fight for that way of life, the reef will need to remain a vital, life-giving resource. And the work of the USGS, in supporting the studies reported in this volume, has given them the information they need to protect it.

The people of Moloka'i, and everyone else in Hawai'i, should be grateful.

— *Patricia Tummons*

Finally, "Hawai'i County needs to develop an anchialine pond protection/management program. This program would include a) an enforcement policy of no net loss of ponds on both public and private lands, b) conducting an islandwide inventory of anchialine ponds, and c) establishing water quality standards for ponds. Without development of an anchialine protection/management program, anchialine ponds will most likely disappear within the next two decades."

Against this background, Okano, a planner hired by the state Coastal Zone Management Program but working for the county, organized a series of stakeholder meetings in April 2008. The November draft guidelines were the initial outcome, but whether the project will be pursued by the new administration of Mayor Billy Kenoi is an unanswered question.

Former county Planning Director Chris Yuen said he did not know what his successor would do. "I know the direction we were on," he said in a telephone interview. "The genesis of this was, the county collects all this water quality monitoring data... I wanted to see if there were any trends and have an independent review of it."

The UHH Marine Science Department, which undertook the review, suspected there might be a trend to increasing nutrients, particularly nitrates, Yuen said, but the data were insufficient to be definitive.

"The principal recommendation was to go back to the 1992 monitoring protocols that had been developed and agreed upon

dard and get a little more in the way of field observation."

Alarm

Ron Baird, administrator of the Natural Energy Laboratory of Hawai'i Authority, signaled his alarm over the draft at the December meeting of the NELHA board. NELHA's two SMA permits require extensive water quality monitoring, most of it chemical. Baird said that although he had been able to economize by eliminating two positions in NELHA's water quality laboratory, "under the draft water quality monitoring plan... the environmental monitoring program here would have to be substantially expanded.... We will probably have to add a couple of positions in our water lab and begin a more intense monitoring program." The costs, he said, would be charged to all tenants.

Baird also disparaged the need for the proposed changes. At the April meeting, he said, "there was considerable discussion by our staff, Dr. [Steve] Dollar, Dr. [Richard] Brock [water quality consultants], about this unrealistic academic proposal.... When the draft report came out, all those concerns were totally missing, they weren't even referenced."

The new protocols involve "a substantial amount of proposed clinical tests – frankly



Kekaha Kai State Park

PHOTO: DLNR

attending his first meeting as the county's representative on the NELHA board. "I don't know how urgent this is," he said at the meeting. "The new mayor hasn't selected a planning director. I suggest we wait."

Baird acknowledged that the new administration might not pursue the previous planning director's initiative. Still, Command was charged with finding out what the Kenoi administration's intentions were and reporting them back to NELHA.

"This is something I should get educated on, and brief you on," he said.

In mid-December, *Environment Hawai'i* asked Command what the administration's position would be on the guidelines. Command, who was a reporter with *West Hawai'i Today* before joining the county, said he still needed "to get up to speed on that."

Monitoring Elsewhere

When it comes to monitoring as a condition of permits for the SMA, which are issued at the county level, Hawai'i County seems to have taken the lead with the guidelines for West Hawai'i. A staffer with the City and County of Honolulu Department of Planning and Permitting said that that agency had no guidelines. Thorne Abbott, who is the CZM planner for Maui County, said that "only a couple of projects" in the Wailea-Makena area have water quality monitoring requirements included as SMA permit conditions, but the county had no uniform protocol for collecting the data. (Abbott, by the way, had high praise for the efforts of Hawai'i County, and particularly Dana Okano, to improve monitoring efforts in West Hawai'i.) In Kaua'i, a staff person with the county Planning Department CZM program said that the county had nothing similar to the West Hawai'i monitoring protocol, but it was certainly an idea that was worth considering.

— Patricia Tummons

"If we don't understand the burdens of this monitoring, they need to let us know."

— Chris Yuen, former Hawai'i planning director

by the various players, but had not been acted upon." While many of the chemical parameters of water quality were being regularly monitored by the SMA permittees, "it wasn't comprehensive or consistent," Yuen said. And biological monitoring at both the micro- and macro- scale was seriously lacking, he said.

"It was clear we couldn't just simply adopt the 1992 protocols," he added. The draft that was released just as Yuen was leaving office "wasn't an ultimatum," he said, just "a firmer draft of what we would want to do." It was sent out to stakeholders for their reactions and input, he said. The idea wasn't to increase the burdens on SMA permit holders, he said: "If we don't understand the burdens of this monitoring, they need to let us know. It's still a matter of discussion, but the idea is to make it stan-

busywork – dissolved nitrogen, total nitrogen," Baird said. "Some of these tests are totally without any reason. Some of these tests the Department of Health has said these don't do any good at all, why would you test for these?"

Baird urged members of the NELHA board to push back against the draft guidelines. Board Chairman John DeLong seemed willing to oblige: "It sounds like we need to mount a lobbying effort, some kind of educational effort, so we don't incur needless expenses that we're passing onto tenants that clearly don't benefit the environment.... Where should we focus our efforts?"

"With the new county planning director," Baird said.

Bobby Command, Mayor Kenoi's new executive assistant for West Hawai'i, was

Dramatis Personae in the Hamakua Land Grab

Here is a short description of the businesses that have so far made public their interest in obtaining the use of state land in the Hamakua area for biomass, biofuels, or timber production:

HAMAKUA BIOMASS ENERGY, LLC: This company has announced plans to use wood chips to fuel a 30-megawatt power plant on roughly 63 acres of state-owned land just off Highway 19 about 30 miles north of Hilo. According to company CEO Guy Gilliland, who presented information about the company's plans in Honoka'a on December 9, HBE "has ownership rights and responsibilities for forest biomass from Honoka'a to Laupahoehoe," roughly the area of Kamehameha Schools land that has been planted in eucalyptus. (A source with Kamehameha Schools said that HBE actually doesn't have ownership rights to the trees yet, but that it is in serious talks with GMO Renewable Resources, which does own the trees planted about 13 years ago as part of a now defunct plan to ship wood chips to Japan.) Gilliland also said that the company is in negotiations with the island utility, HELCO, over a power-purchase agreement.

The existing eucalyptus forest, said Gilliland, is sufficient to provide fuel for the first decade or so of plant operation. In anticipation of meeting demand beyond that, the company is hoping to lease state land, which will be planted with the next generation of biomass crop sometime after 2010, to be ready for harvest by 2020. On November 14, the Board of Land and Natural Resources approved in principle the lease to the company of 10,500 acres of as-yet unidentified state lands in the Hamakua area.

Several of the company's principals are also involved with the Kahe'awa wind farm on Maui: founders Hilton Unemori and Kent Smith, chief financial officer Russell Yamane, and comptroller Randal Taniguchi.

SUNFUELS HAWAII, LLC: SunFuels was one of the two companies awarded a lease in principle by the Land Board on November 14. Its business plan calls for using trees or other crops to produce what general manager John Ray calls "liquid transportation fuel." Unlike most other biodiesel products, the SunFuels process involves not the extraction of oil from plants such as oil palms or jatropha, but the production of a synthetic diesel through the breakdown of cellulosic fiber.

Of all the companies that have expressed an interest in obtaining state land, SunFuels' plans have the longest turnaround time from the anticipated award of lease to the production of fuel: between eight and ten years, according to Ray.

The company's founder and sole member, Michael Saalfeld, has developed the process, which is being tested at a "beta" plant in Freiburg, Germany. Saalfeld is a renewable energy baron of sorts in Germany, where electricity users can choose to be billed according to the cost it takes to produce energy from their preferred energy sources (nuclear, fossil fuel, or renewable). Saalfeld's "eco-utility" Lichtblick, based in Hamburg, has been reported to sell about 1.4 billion kilowatts per hour, all said to be generated from renewable resources.

At a hearing in Hilo last month, Ray dismissed the controversy over the number of acres – more than 37,000 – his company had initially put on its application to the Land Board. "Acreage isn't a useful metric," he said. How much productivity you get depends on the density of plantings, richness of the soil, rainfall, and other qualities of a given site, he pointed out. He suggested his company's plans could be compatible with ranching, using a "silvo-pastoral" model, where cattle can graze under established trees.

HU HONUA BIOENERGY LLC: This company has acquired the plant at Pepe'ekeo, which was originally fired with bagasse from the C. Brewer plantations near Hilo. After Hilo Coast Processing Company went out of business, the plant was converted to coal before shutting down four years ago.

Daniel KenKnight, one of Hu Honua's principals, was involved with the efforts of O'ahu Ethanol to start an ethanol production facility about three years ago. Hu Honua has leased the plant, which it is now planning to refurbish as a 24-megawatt plant producing power from biomass.

The plant itself has been leased from an entity owned by Continental Pacific, which purchased the plant and surrounding cane lands after C. Brewer's demise. It subdivided most of the land into one- to five-acre "agricultural" lots, which it sold as upscale residential lots. Many of those who purchased the lots have built expensive homes on them and have organized opposition to the proposed reopening of the plant.

TRADEWINDS, LLC: As is reported elsewhere in this issue, Tradewinds has a license to harvest timber from state land in Waiakea, just south of Hilo. As part of that, it is to build a veneer mill, where it is hoping to process not just eucalyptus from the Waiakea plantation, but quality hardwoods from elsewhere around the island. It also plans to generate energy by burning waste from the mill. Recent developments with Tradewinds are discussed on page 10 of this issue.

HAINA HAWAIIAN HARDWOOD MILLS, INC.: Owner Bob Marr, who has a logging business on the Big Island, last year purchased the 50-acre site of the old Haina sugar mill near Honoka'a, where he plans to establish a hardwood processing mill. The company intends to process high-quality hardwoods into furniture, veneer, and other uses, with the remaining biomass used to fuel a co-generation plant.

In late December, Marr was reported to have asked the Department of Land and Natural Resources for a lease of at least 10,000 acres in the Hamakua area. According to a published report, Marr wants "all available state agricultural forestry land on the Big Island of Hawai'i, for the present time geographically confined to the Hamakua coast between Hilo and Waipi'o Valley."

HAWAII BIOCRUDE, INC.: According to vice president Robert Numbers, this company, formed about a year ago, intends to grow oil crops that will provide "raw material for the biodiesel producers or the electric companies to use in their generator systems."

"We are seeking funding at this point," he said, which is why the company has not been actively seeking lands on which to plant jatropha or oil palms, the two species it has identified as "optimum" for the extraction of biofuels.

"Because of the rush to get land by other renewable energy operatives on the island," Numbers told *Environment Hawai'i*, "we decided it is time to let the DLNR know that we, too, will be seeking state land, and we'll be talking with DBEDT and the DLNR about this."

Numbers said he had no previous experience with renewable energy, but that for three years, he had been doing research and had been working with the Hawai'i Agricultural Research Corporation and the University of Hawai'i-Hilo.

— P.T.

Energy from page 1

not here to award third or fourth place.” While other companies, including Hu Honua (which plans to revive an old coal-fired power plant in Pepe‘ekeo to burn biofuels) and Tradewinds (which holds already a license to harvest eucalyptus from state forest reserve land, for use as lumber and veneer products) have since expressed their interest in obtaining the use of state lands for biomass projects, at the time that Strickler was asked to help the DLNR evaluate proposals, only SunFuels and Hamakua Biomass had come forward, he said.

“It came down to who was better prepared,” Strickler said. “Hamakua Biomass has a power purchase agreement and had started work obtaining clean air permits. What tilted it toward Hamakua Biomass was their preparation.”

Takamine asked Strickler what had been done to alert other companies to this opportunity.

“We contacted some companies,” Strickler replied. Hu Honua was firm that it “was not interested in being a land manager,” he said, and did not want leases. Tradewinds was “just a forestry company,” he said; “if old growth is available, we want them to get it,” adding that Tradewinds had indicated it was not interested in leasing large tracts of land for planting.

A Turnaround

Despite Thielen’s insistence that any and all interested in hopping on the biomass bandwagon were welcome to join in the negotiations, John Ray, general manager of SunFuels, said he would like to see the Land Board’s decision of November 14 rescinded. SunFuels’ proposal to grow biofuel crops on lands already under lease to ranchers and others was the lightning rod for much of the opposition to the Land Board action that ultimately led to the Senate committee hearing and the draft legislation proposed by Hee to amend Chapter 171-95, *Hawai‘i Revised Statutes*.

“We never intended to take over existing leases,” Ray said. “We just wanted to talk with the lessees about more productive tree crops.”

Ray also disputed the notion that there was acreage enough to accommodate all potential biofuel producers in addition to farmers and ranchers. “It’s fair to say that this is a competitive situation,” he said, adding that no representative of any state agency had approached him about engaging in talks aimed at finding the best mix of uses for state lands.

Dan KenKnight of Hu Honua contradicted statements made by Strickler that his company was not interested in state lands or that Hamakua Biomass was further along with its permits than other entities. Saying he was certain it was an “honest mistake,” KenKnight informed the senators that he had never been told that “all state lands in Hamakua would be taken up in the non-bid process. We’re in competition for that, as well as seeking private lands.”

When Strickler approached him in September, KenKnight said, “we told him we were working with the Hawai‘i Agriculture Research Corporation on a sustainable biomass plan.”

“We assumed, maybe naively, that you’d need a specific plan,” he said, something more than just, “grow eucalyptus.”

“We didn’t think all the land would be gone” by the time his company was ready to go, he said.

Alarmed Ranchers

Earlier in the day of December 17, the three senators met separately with ranchers and other holders of state leases in the Hamakua area. The ranchers were also well represented at the evening hearing.

Most of them had been alarmed by the Land Board action, which they had understood to be more of a commitment than Thielen had described. Several denounced the Land Board for past actions that diminished the size of their leases in order to provide habitat for palila as part of the mitigation required to build the Saddle Road.

But if the ranchers were operating under a misconception, so, too, apparently was Senator Hee – himself a rancher. In a press release to announce the Hilo hearing, Hee stated, “I firmly believe that the staff recommendation of DLNR was improper because it recommended leasing lands to a business entity that are already under State lease to farmers and ranchers. This is just one reason why state lands productively used for agriculture are diminishing.”

The Hamakua community as a whole also seemed to think the board action had in some way usurped the rights of lessees. At the community meeting of December 18 in Honoka‘a, sponsored by County Councilmember Dominic Yagong, Thielen’s announcement that the board “did not issue any leases” drew enthusiastic applause from the crowd that filled the Honoka‘a People’s Theater. Referring again to the Kalepa, Kaua‘i, example, Thielen noted that the bioenergy com-

pany that had sought to use state lands entered into separate sublease agreements with some of the leaseholders, resulting in more revenue to ranchers as well as the improved infrastructure, allowing them to increase their productivity on lands not used to grow biofuel crops.

Tim Mann, president of the Hamakua-North Hilo Farmers Cooperative, wanted to see the list of parties involved in negotiations expanded to include not just the holders of leased lands and the biofuel companies, but “all groups,” including farmers. The goal would be to “identify the best use of available lands,” he suggested, and work out a lease policy on that basis.

One of the few disinterested parties to testify at the Senate committee hearing was Jeff Choi, a former deputy attorney general and retired district judge. “I saw the way the ethanol decision was made,” Choi said, referring to the state’s decision a decade ago to promote the use and manufacture of ethanol. “It was bad.” Now, he added, all the talk about biomass and bioenergy reminded him of that decision. “Renewable energy are magic words,” he said. And as for the Land Board’s efforts to negotiate direct leases with biofuel companies, he concluded, “all I see as a lawyer is a potential lawsuit. This screams lawsuit.”

*Algae Energy Advances*

The board of directors of the Natural Energy Laboratory of Hawai‘i Authority gave its approval “in concept” to the plan of BioEnergy Hawai‘i to build a waste-to-energy facility on state land managed by NELHA. Carbon dioxide from the stack would be captured and used to feed algae, which would then be converted into biodiesel to run the trucks of Pacific Waste, Inc., a large commercial waste hauler in West Hawai‘i that is owned by many of the same parties proposing the incinerator.

Last spring, the NELHA board gave the project “approval in concept” the first time (see the July 2008 issue of *Environment Hawai‘i*). In October, it approved a non-binding letter of intent – described as nothing more than “an agreement to negotiate” a lease – but without a draft sublease attached. Last month’s “approval in concept” differed in that it was attached to a draft sublease. BioEnergy Hawai‘i attorney Francis Jung insisted that the draft sublease and the letter of intent his client was seeking were “totally non-binding.”

“The problem is, in today’s credit mar-

Wave Energy Project Proposed for Penguin Bank

A Seattle-based company has taken the first steps toward regulatory approvals of a wave energy project, possibly with an additional wind energy component, off Moloka'i that could generate up to 100 megawatts of electricity, according to the application filed in late October with the Federal Energy Regulatory Commission.

The site, about 12 to 25 miles southeast of Moloka'i, in an area known as Penguin Bank, is one of the most productive grounds for bottomfishing in waters surrounding the Main Hawaiian Islands. The area is also included in the Hawaiian Islands Humpback Whale National Marine Sanctuary, but, according to the FERC filing, "the proposed technology of fixed structures cannot entangle whales in cables or lines."

The application was filed with FERC because it has jurisdiction over projects on the outer continental shelf, or OCS, writes W. Burton Hamner, president of Grays Harbor Ocean Energy Company, LLC, in his cover letter to FERC Secretary Magalie Salas.

Whether any part of submerged lands off Hawai'i could be regarded as a "continental" shelf would seem, on its face, to be a questionable assertion.

"We also understand," Hamner contin-

ket, if you're going before any committee to raise money, they have to know there's some substance to what you're proposing... [This] gives us a starting point to raise funds and financing," Jung said.

Initially, the algae component was presented as an optional add-on, but in the documents approved by the board, it is included as an essential element of the BEH proposal. Early estimates of the cost to build the plant were on the order of \$70 million. At the NELHA meeting in December, NELHA executive director Ron Baird said the company would need "up to \$100 million."

Much of the discussion centered on whether the board's action was tantamount to a commitment or could be construed as a reservation or option on some 25 acres of NELHA land for the proposal. Board members gave their approval only after receiving assurances that their action was neither.

Should BioEnergy Hawai'i get its financing in place, the next step is preparing an environmental impact statement. This, company representatives said, could take up to two years. —**Patricia Tummons**

ues, "that the Minerals Management Service has jurisdiction over leasing of the seabed and that FERC intends to resolve with MMS the appropriate regulatory processes. We applaud this. It is very helpful to have the FERC consultative and license application in place as it is well proven and reduces the risk for developers."

The MMS "is developing its final rules for leasing of OCS lands for alternative energy production," the FERC filing states. "Given that FERC has asserted its authority over offshore hydropower (wave and tidal) that leaves MMS with regulation of offshore wind power generation. The project may include wind turbines installed on the [wave energy] foundations, and this will require interface and collaboration between FERC and MMS to resolve jurisdictions and requirements."

Hamner says his proposal is not speculative, since "the site proposed has been chosen with highly detailed information regarding its actual power potential and suitability for existing technology. The specific vendors for the major technologies and systems have already been selected."

A Larger Plan

The Penguin Bank site is one of seven sites for which the company is seeking permits. Others are near San Francisco and Ventura, California; near Cape Cod, Massachusetts; near Block Island in Rhode Island; near the Hamptons in Long Island, New York, and offshore of Atlantic City, New Jersey.

According to the company's website, it has also been involved in developing a wave power demonstration project in Washington state since 2007, but "a full-scale offshore wind/wave project is not proposed now in Washington because the local energy cost is very low and offshore energy cannot compete with it economically."

The criteria used for siting the seven projects are listed on the company's website. They include:

- ◆ Electric rates must be in the top 25 percent of rates charged across the country, meaning they must average more than 15 cents per kilowatt hour. (Hawai'i easily meets that criterion, with residential rates of more than twice that in some locations.)

- ◆ The state must have significant incentives and requirements for renewable power generation. (Again, Hawai'i has meaningful incentives for development of alternative energy.)

- ◆ The site must not be in a commercial

shipping navigation lane.

- ◆ The site depth must not exceed 250 feet.

Fallout

The proposal for Penguin Bank has not received wide notice in Hawai'i, but not so for proposals for other sites. So extensive has the negative response been that on December 8, Hamner posted an open letter on his website, extending "my apologies for surprising state and local officials and organizations in the states where we have proposed projects. The FERC acted on our applications faster than I think it has ever acted for any applicant before and, frankly, it caught us off guard. We have not had time to contact the political, energy and ocean leaders in our project areas."

Josh Strickler, an energy analyst with the state Department of Business, Economic Development and Tourism, found out about the proposal only in mid-December. Since then, he told *Environment Hawai'i*, he's attempted to reach Hamner, but has not had calls returned. "I only know what's on the web," he said.

The FERC opened a 60-day public comment period on all seven proposals on November 28. On December 15, the Hawai'i environmental group Life of the Land submitted its request to be granted intervenor status. "Life of the Land's members are concerned about energy issues, ocean issues, environmental issues, cultural issues, endangered species and increasing transparency of complex governmental procedures," wrote Henry Q. Curtis, the group's director, in the FERC filing.

Potential competitors also have 60 days, from November 28, to make their interests known. In his open letter, Hamner says, "FERC surprised us greatly by its rapid response. Our first application took FERC five months to open for comment. This time they did it in five weeks... I personally called FERC and asked them to open the public comment period in January or February, because opening it in December is rather unfair to the public – the holiday season is a big distraction and I don't think the public and agencies really get a 'normal' 60-day comment period if it opens on November 28."

More information on the project is available at the FERC website: <http://www.ferc.gov/industries/hydropower/industry/hydrokinetics/permits-pending.asp>. The project number assigned to the Hawai'i proposal is 13307-000.

The Grays Harbor website is: <http://www.graysharboroceanenergy.com>. —**P.T.**

BOARD TALK

Board Extends Deadlines To Complete Timber Mill

It's been about a decade since the state Board of Land and Natural Resources issued a timber land license to Tradewinds Forest Products, LLC, to log a portion of the state's Waiakea Timber Management Area and to build a veneer mill. As the company struggled over the years to meet deadlines set forth in that license, it has appealed to the board on a number of occasions for time extensions. By January 1, the "drop-dead" date of the license, Tradewinds was to have completed construction of its veneer mill.

When the Land Board met on December 12, Tradewinds had not only fallen short of completing construction of the mill, it didn't even have a permit to start building it. In October, Tradewinds had asked the Department of Land and Natural Resources' Division of Forestry and Wildlife for a one-year extension to complete the mill. According to a DOFAW report, Tradewinds had obtained a Clean Air Permit from the state Department of Health as well as a power purchase agreement with the island's utility, Hawai'i Electric Light Company. The company's last big hurdle is securing \$50 million in financing, the report states.

Citing the progress Tradewinds had made in obtaining necessary permits and the company's diligence in paying penalties associated with its failure to meet benchmarks in the license and "pre-stumpage fees," DOFAW recommended last month that the board amend the license agreement to allow for extensions up to December 2010, provided certain benchmarks are met as well as additional conditions. Among other things, DOFAW recommended adding a condition that Tradewinds receive county building permits for all of the plant's major components and secure all mill construction financing by the end of 2009.

At the board's meeting, Tradewinds CEO Don Bryan said that the company's investors have sunk \$9 million into the project already.

The board heard testimony opposed to the extension from a few people from O'okala, the small town on the Hamakua coast of the Big Island, where the mill is planned. They cited Tradewinds' history of noncompliance. Others, including U.S. Representative Neil Abercrombie and former Big Island land board member Fred Holschuh, submitted testimony in support. O'okala resident Scott

Enright, who opposes the project, disputed the state's determination that office renovations constituted construction and argued that Tradewinds was not currently in compliance with its license agreement. Other O'okala residents, however, told that board that most people want the mill to succeed because it will provide jobs to the community.

Despite Enright's arguments, the Land Board approved its staff's recommendations with an amendment that Tradewinds start stumpage payments for replacement stands in 2010, rather than 2009, which DOFAW had initially recommended.

Before the board's vote, DOFAW administrator Paul Conry said that if Tradewinds does not meet its construction start date for the veneer mill, he will probably not recommend any further extensions for the project.



Chandlers Win Permit For Illegal Improvements

It seemed like such a trivial matter to decide: whether to allow a Kane'ohe couple to park their cars on a 19'-by-14' patch of gravel in the Conservation District. But because Joyce and William Chandler constructed that little patch, the steep driveway leading up to it, and a gunnite wall along the hillside without a Conservation District Use Permit from the board, some Land Board members, as well as Office of Conservation and Coastal Lands administrator Sam Lemmo, were loathe to "reward bad behavior" and let the Chandlers use the landing for any purpose.

At its December 12 meeting, Sam Lemmo first requested that, as part of a settlement with the Chandlers, the board approve an after-the-fact CDUP for the unauthorized improvements as well as a handful of ancillary ones that the couple wished to install. Granting the permit would help conclude a contested case hearing over violations stemming from the construction that began more than five years ago and resulted in a \$50,000 fine. But when the Chandlers' attorney Emily Gardner asked the Land Board for confirmation that her clients would be able to use the gravel patch to park their cars, Lemmo, as well as Land Board members Tim Johns and Sam Gon, protested. The only reason the state was

considering allowing the improvements to remain is because the couple's engineer believed it would cause more damage to the environment to remove them, Lemmo's said in his report to the board.

"Maybe you intended it to be, from the very beginning, a driveway and parking lot, but the whole reason for keeping it in was because that was regarded to be less impactful on the resources than it would be to take it out. We could have said, 'Take it out,'" Johns said.

"I was looking at [the permit] completely from a practical perspective, the physical perspective, the advice of the engineers. That's all I was looking at it as. And if Mr. Chandler had never said nothing in his EA [environmental assessment] and CDUA about morphing this whole thing into a parking area, we might have sat here and accepted it at face value and he could have been on his merry way. But he's pushing the issue of parking and I'm very uncomfortable after what we've gone through and how it circumvents our whole regulatory process, because we *wouldn't* have approved this had it come to us as a package," Lemmo said.

Lemmo said he hadn't recommended outright prohibiting the use of the area for parking in the permit's conditions because he had better things to do than monitor where the Chandlers park their cars. Still, to make sure the Chandlers weren't rewarded for their illegal actions, Lemmo proposed amending his initial recommendations to delete the approval of a retaining wall to keep dirt from encroaching on the gravel area. That way, over time, dirt and vegetation would eventually cover the gravel patch, making it unusable for parking.

Perhaps aware that amending the conditions in this way could lead to yet another contested case hearing, the board approved Lemmo's original recommendations for the CDUP, with Johns voting in opposition.



New Issues Arise In 'Ewa Marina Case

"So you want a larger marina?" Land Board member Tim Johns asked Michael Kumukau'oha Lee at the board's December 12 meeting. Lee had just argued that shrinking the marina that HASEKO, Inc., plans to build in 'Ewa, on O'ahu's southern shore, could lead to anoxic conditions that could harm the seaweed that grows nearby. Lee has said he uses the seaweed for various cultural practices, including making medicine.

Lee is a native Hawaiian cultural practitio-

ner who has fought for years to keep the natural and cultural resources along the 'Ewa coast from being harmed by HASEKO's marina development. And last February, after HASEKO proposed amending its Conservation District Use Permit for the marina's entrance channel to allow the marina to be downsized from 70 acres to 53.76 acres, Lee requested a contested case hearing, arguing in his petition that the Department of Land and Natural Resources had provided inadequate oversight over public trust resources "thereby harming my ability to exercise my traditional and customary native Hawaiian practices." He further stated that this lack of oversight could lead to the destruction of an ali'i burial site near the channel entrance.

Because Lee's petition focused mainly on potential damages to archaeological sites, the DLNR's Office of Conservation and Coastal Lands recommended on December 12 that the Land Board deny Lee's request, since the office found in its evaluation that Lee did not meet requirements for standing. In its report to the board, the OCCL noted that reducing the size of the marina would not impact the construction of the entrance channel and therefore would not affect any burial sites.

At the board's meeting, however, Lee raised a new issue in his defense. Lee told the board that he had scientific experts who would testify that reducing the size of the marina might affect water circulation in such a way as to create anoxic conditions, which could kill marine life in the area.

"I'm not against the marina development per se. I'm against dirty water going into the ocean," he said, adding that he does not necessarily want a larger marina. Jerome Yasuhara of the Office of Hawaiian Affairs echoed Lee's concerns.

Unsure what to do with this new information, the Land Board held an executive session to discuss its options. After conferring with their attorney, board members Ron Agor and Tim Johns seemed inclined to accept the OCCL's recommendation to deny Lee's petition.

"I'm kind of disturbed by the fact that the petitioner disclosed new issues at the last minute. We're talking about due process and the other party [HASEKO] was not privy to that," Agor said, and Johns agreed.

Big Island board member Rob Pacheco, however, was more lenient and suggested that Lee be allowed to amend his petition. In the end, the board agreed with Pacheco and voted to give Lee ten days to refile his petition to include the issue he had raised at the meeting.



Board Adopts Rules For New Enforcement System

Streamlining is nearly always a good thing, except when it abridges the public's rights. And in the case of the Land Board's new administrative rules, at least one native Hawaiian, Keoni Pa'a Choi, as well as the Office of Hawaiian Affairs, worry that the rules, which delegate to a hearing officer a lot of things that usually come to the Land Board, could pose a hardship for native Hawaiians exercising their traditional and customary practices.

On December 12, the Land Board approved several rule changes regarding enforcement, contested case conduct, public hearing procedures and other administrative matters. But before the vote, OHA's Jerome Yasuhara told the board that the new Civil Resource Violations System in the rules needed more review and said that he didn't want any more enforcement of rules that violate constitutionally protected rights of native Hawaiians. He added that under the new rules, "punishments can be severe, maybe not criminal, but financially so. We're talking thousands and thousands of dollars." And because they would be adjudicated by a hearing officer, they would occur outside the public view. "That leads to issues of trust and how we view government," he said.

Under the new system, the Land Board chair or a DLNR Division of Conservation and Resources Enforcement officer may issue

citations for resource violations to which alleged violators have 21 days to respond. Recipients can accept the sanctions assessed, request mitigation, or contest the violation. Cases where the recipients request mitigation or contest the violation will immediately go before a hearing officer. The officer's decisions regarding mitigation are final. In contested case hearings, however, the Land Board has the authority to make final decisions, unless it delegates that authority to the chair or the hearing officer.

The rules also direct the Land Board to establish an administrative sanctions schedule for civil violations. The schedule must consider the value of resources damaged or stolen, the level of damage to state facilities or services, costs of remedying or repairing the damage, and the level of cooperation of the violator, among many other things.

In response to OHA's concerns, deputy attorney general Linda Chow explained that under the new rules, contested violations would continue to come before the Land Board for final decision. Land Board chair Laura Thielen added that the board still has to decide, at a public meeting, which types for violations would fall within that system. She said the kinds of violations that might come under the CRVS are minor things, such as not having a trailer sticker when using a state boat ramp.

While he voted to adopt the new rules, Land Board member Sam Gon echoed OHA's desire to make sure that the board's hearing officers have an understanding and knowledge of local communities, among other things important to natural resource management. Earlier last year, the Land Board decided to use a deputy



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attorney general from the Department of Health as its hearing officer and the DLNR has already delegated a number of its contested cases to him.

Also under the new rules, the presiding officer of public hearings can have disruptive people removed; at Land Board meetings, the chair *must* confine oral testimony to agenda items; at public hearings, oral testimony *must* be confined to the matter for which the hearing is being held, and to give people an equal amount of time to testify, presiding officers may limit the amount of time each person may speak.



Feds Renew Management Permit For NWHI Marine Monument

At the Land Board's December meeting, where it renewed the management permit for the co-trustees of the Papahānaumokuākea Marine National Monument, monument superintendent 'Aulani Wilhelm presented the board with her agency's 2007 annual report for the monument, which provides a glimpse of the level of impact various activities in the monument have had over 2007.

Researchers collected some 8,300 biological samples from the monument, including seabird blood samples and feathers; crab, coral, and cetacean biopsies; seeds and various animals, among other things. They also collected nearly 500 jars of rock and sediment and 135 pieces of rubble.

With regard to management, the Pacific Islands Fisheries Science Center removed more than 640 tons of marine debris from the monument and disentangled an endangered



PHOTO: NOAA

Managers removed more than 650 tons of marine debris from the Papahānaumokuākea Marine National Monument in 2007.

Hawaiian monk seal at Pearl and Hermes Atoll in October, while U.S. Fish and Wildlife Service staff worked to eradicate invasive terrestrial species, the report states.

The monument granted its co-trustees two permits for educational activities, and gave one permit for native Hawaiian practices to the University of Hawai'i, which took a group of cultural practitioners to Mokumanamana in June to conduct ceremonies and research cultural sites on the island. The Travelers Century Club received the only recreational permit to fly a group of 12 visitors to Midway Atoll for a two-day historical and wildlife tour. Finally, the monument issued two permits for a 65th anniversary commemoration of the Battle of Midway – which brought more than 1,600 people to the atoll – and three permits for documentary and educational filming and photography. In all, 2,120 people visited the monument.

While discussing whether to renew the monument's management permit, KAHEA program director Marti Townsend objected to the permit's provision allowing sustenance fishing in federal waters and the coring of sea beds, among other things. Townsend said she found the idea of sustenance fishing offensive, considering that native Hawaiians aren't ask-

ing for it and that commercial fishing will eventually be prohibited in the monument. She also reiterated her longstanding opposition to the "self-authorization" and in-house review of permits by the monument's co-trustees – the state, the U.S. Department of Commerce, and the Department of the Interior – and called for the establishment of an independent review body.

In response to Townsend's concerns about sustenance fishing, Wilhelm said, "I want to correct the assumption that there will be NOAA people up there with [fishing] poles." She explained that while the permit does identify sustenance fishing as a possible use, it was only meant to offer the permanent staff at Midway atoll the possibility of fishing for food if and only if the USFWS determined that it was a compatible activity. With regard to the coring of sea beds, Wilhelm said it would only be done in connection with things like the installation of mooring buoys or temperature gages.



Public Hearings for Poamoho Reserve

The Land Board approved on December 12 a request by the DLNR's Division of Forestry and Wildlife to hold public hearings on a proposal to withdraw 1,311 acres from the 'Ewa Forest Reserve and designate the area as the Poamoho Natural Area Reserve. The proposed reserve includes four native natural community types, five species of the endangered Hawaiian tree snail genus *Achatinella*, and more than a dozen endangered plant species. DOFAW currently manages the land as a forest reserve and a public hunting area. In addition, the U.S. Army, which has a lease with the state to use the area, conducts non-live fire training there. Under the NAR proposal, the Army could continue to train in the NAR on weekends and holidays.

— Teresa Dawson

