

Price: \$5.00

Warped Powers

The use of emergency powers by Governor Abercrombie to allow the Army Corps of Engineers to clear unexploded munitions from state lands is breathtaking. No fewer than 25 state laws have been suspended for five years so that the Corps can remove ordnance that has been around for half a century or more.

Compounding the controversy over the emergency proclamation is the fact that it was, in effect, secret for more than two months. Although the governor's office says this was an oversight, strangely, no other proclamation managed to escape posting on the governor's website.

Also in this issue we discuss the latest discoveries in biocontrol for some of the state's worst invasive plants, renewable energy, and the most recent important agricultural lands designation.

IN THIS ISSUE

1

New & Noteworthy: Ants and Ohelo, And Families of Whales

3

Experts in Biocontrol Work To Match Weeds with Natural Enemies

5

Spending on Sustainability Starts with a Whimper

8

Ordnance Survey at Reserve Gets Mixed Response from Public

10

Board Talk: Army Wins Permission to Train Pilots on Mauna Kea, Mauna Loa

11

Parker Ranch IAL Petition Gets Quick LUC Approval



Proclamation, Rights of Entry Unfetter Army Corps in Ordnance Surveys, Disposal

I twas practically a secret for months. But in late August, state Department of Land and Natural Resources staff and members of the public (including *Environment Hawai'i* and Carroll Cox of Envirowatch) were starting to ask about the elusive emergency proclamation that was now governing ordnance surveys and cleanups throughout the state.

Those inquiries eventually led the governor's office to post the proclamation on its website on August 29, DLNR public information officer Deborah Ward says.

Echoing the governor's office, she adds that the failure to post it earlier was an oversight.

"People were busy," she said.

Although few have argued that the military should *not* remediate its former training areas, the state's handling of the U.S. Army Corps of Engineers' most recent efforts has stirred controversy among environmental and cultural groups, as well as transparency advocates.

According to DLNR records, the pressure to get the Corps onto state lands and allow it to detonate munitions has been building for some time.

Under the Radar

In September and December 2009, the DLNR's Land Division issued one-year emergency action rights-of-entry allowing the Corps to blow up unexploded ordnance in place on all state lands managed by the DLNR. In September 2010, a similar rightof-entry was issued by the department.

But on October 7, 2010, just to be sure it was in compliance with the state's environmental review law, Chapter 343, the DLNR



NEW AND NOTEWORTHY

The Enemy of my Enemy...: Ants are relative newcomers to Hawai'i and generally not welcome ones at that. But in an article published in the July issue of *Pacific Science*, three German scientists discuss an unusual case of mutualism involving ants and the endemic shrub *Vaccinium reticulatum*, better known as ohelo.

The authors – Richard Bleil, Nico Blüthgen, and Robert Junker – studied ohelo at two sites in Hawai'i Volcanoes National Park. One site was infested with three species of ants (*Pheidole megacephala, Paratrechina bourbonica,* and *Plagiolepis alluaudi*), while another had just a single species, *Linepithema humile*.

What they found was that plants where only ants were allowed to visit had more berries set than plants where all insects (including flying ones) were allowed. The least fruit was set on plants where ants were excluded. "On average," write the authors, "the presence of ants increased fruit set more than fivefold compared with the fruit set on ant-excluded branches," regardless of whether flying insects were allowed on the plant. The presence of

Environment Hawai'i

72 Kapi'olani Street Hilo, Hawai'i 96720

Patricia Tummons, *Editor* Teresa Dawson, *Staff Writer* Susie Yong, *Office Administrator*

*Environment Hawai'i*is published monthly by Environment Hawai'i, Inc., a 501(c)(3) non-profit corporation. Subscriptions are \$65 individual; stoo non-profits, libraries; \$130 corporate. Send subscription inquiries, address changes, and all other correspondence to *Environment Hawai'i*, 72 Kapi'olani Street, Hilo, Hawai'i 96720. Telephone: 808 934-0115. Toll-free: 877-934-0130. E-mail:ptummons@gmail.com Web page: http://www.environment-hawaii.org Twitter: Envhawaii

Environment Hawai'i is available in microform through University Microfilms' Alternative Press collection (300 North Zeeb Road, Ann Arbor, Michigan 48106-1346).

Production: For Color Publishing

Copyright © 2011 Environment Hawaiʻi, Inc. ISSN 1050-3285

A publication of Environment Hawai'i, Inc. Officers Director

Patricia Tummons President and Treasurer Teresa Dawson Vice President and Secretary Directors Kathy Baldwin Robert Becker Mary Evanson Mina Morita



Ohelo plant and berry

ants discouraged predation on ohelo flowers by caterpillars of an introduced plume moth, *Stenoptilodes littoralis*, allowing more flowers to set fruit.

Unfortunately, only 10 percent of all seeds produced by plants in the study were viable, whether ants were present or not. A reason for this, the authors speculate, is the decline of populations of natural pollinators, such as the native yellow-faced bees (*Hylaeus* spp.). Bearing out this hypothesis, the authors note, is a study of ohelo back in 1993, looking at seed set in Hawai'i Volcanoes National Park and Haleakala National Park. That study found 32.6 percent of the seeds were viable, "four times more than what we found," they write. "Lower predatory pressure by ants ... may have supported a denser population of *Hylaeus* spp. bees."

The authors conclude: "Despite the fact that ants effectively protected the flowers of *V. reticulatum* in our study, their strong resource exploitation and their negative effect on native pollinator populations may outweigh this positive effect."

Whale Families in Hawai'i: Over the last several years, studies by the Cascadia Research Collective have pretty well confirmed the presence of at least two discrete populations of false killer whales in waters around Hawai'i. There's the insular population, numbering only around 120, and the pelagic population, found generally further out to sea.



Quote of the Month

"The better the communication, the smoother it will go with everybody."

— Dale Bonar, NARS Commission Last month, scientists with the CRC, Hawai'i Pacific University, the Wild Whale Research Foundation, and the National Marine Fisheries Service published a paper noting a similar population structure for melon-headed whales (*Peponocephala electra*) in Hawaiian waters. There's the population, consisting of around 866 individuals, that is distributed around all the Main Hawaiian islands, and there's another, smaller one, made up of around 180 individuals, that limits itself to the waters northwest of the island of Hawai'i. The paper was published in *Marine Mammal Science*, a journal of the Society for Marine Mammalogy.

The Hawai'i island resident population inhabits shallower water (averaging about 381 meters) than the Main Hawaiian Islands population (1,844 meters). It hangs out with humpback whales when they overwinter here, while the MHI population associates with a broad range of other species, including rough-toothed dolphins and shortfinned pilot whales.

Sightings of melon-headed whales are rare events, amounting to just 2.6 percent of all sightings by the authors in surveys conducted over a 10-year period. On average, there was one sighting for every 14 days on the water. While the whales are distributed from Hawai'i island to Kaua'i, in surveys around the four islands that make up Maui Nui, no melon-headed whales were sighted at all.

The authors conclude with a discussion of the management implications of their work. "The habitat for these individuals overlaps with popular recreational fishing grounds, increasing the possibility for fisheries interactions. The biennial RIMPAC naval sonar training exercises as well as other naval exercises may also occur in waters adjacent to or overlapping with the habitats ... and given the evidence of susceptibility to sound impacts, this may pose additional concern."

A copy of the paper may be found at the Cascadia Research Collective's website: www.cascadiaresearch.org.

Correction: In our September edition, in an item concerning predation by a Peregrine falcon on birds in the Northwestern Hawaiian Islands, we reported that transplanted Laysan finches on Midway escaped the predation. As Sheila Conant has graciously pointed out, "that must be because there aren't any there right now!"

Conant noted that Laysan finches were introduced to Midway in the 1890s, but became extinct about a year and a half after black rats were introduced to the atoll during World War II. Thank you, Sheila.

Experts in Biocontrol Work to Match Hawai'i Weeds with Natural Enemies

The challenges of dealing with invasive species can seem daunting, whether on a local or a global scale. But at a meeting last month in Waikoloa, the scientists, researchers, and natural-resource managers who are on the front lines in the war on weeds had to be cheered by news of breakthroughs in the science and art of identifying and employing biocontrol agents against some of the world's most aggressive invasive plants.

The occasion was the 13th International Symposium on Biocontrol of Weeds, a gathering that every four years brings together the world's leading researchers in the field. That it was held in Hawai'i this year was due, in large measure, to the doggedness of Tracy Johnson. As a research entomologist with the U.S. Forest Service on the Big Island, Johnson has dedicated much of his work over the last decade to identifying ways to knock back strawberry guava, also known as waiawi (*Psidium cattleianum*), which has already invaded much of Hawai'i's native forests and threatens to destroy them if unchecked.

Johnson also organized the session on prospects for weed biocontrol in Pacific islands. Researchers from three continents discussed their efforts to identify pests of miconia, fireweed, and kahili ginger, among other plants.

Miconia

Robert Barreto, of the Phytopathology Department of the Universidade Federal de Vicosa, in Brazil, had to look no further than his next-door neighbor's yard to find a potential biocontrol agent for miconia (*Miconia calvescens*). What's more, the tiny gall-forming nematode that appears to take this giant down a notch works on some of the other Melastome family members – clidemia and tibouchina, to name two – that have settled comfortably in Hawai'i and other Pacific islands.

Searching for a natural pest of these plants in their home range of Central and South America was complicated by the fact that, although they are too easy to find in Hawai'i, they are relatively obscure in Brazil. Barreto described miconia as "a nightmare of an invasive weed," but, he added, in Brazil, "it is so uncommon it doesn't have a common name. It occurs in the margins of rivers and in isolated patches, and is always hammered by insects and disease."

Barreto entered into an agreement with

the University of Hawai'i to look for biocontrol agents for miconia and other melastomes back in 1993. Initially, a fungus was found and shipped to Hawai'i, where it was introduced in 1997. It became established, but, as Barreto said, it didn't have much impact. (On the other hand, when the fungus was released in Tahiti, it was much more effective on miconia there, allowing some native trees to return to the slopes. That the fungus was effective in Tahiti and not in Hawai'i illustrates the large consequences that subtle variances in the genetic makeup of different strains of a plant can have.)

The search continued, Barreto said, and while more than a dozen possible parasites or diseases of miconia were identified, the gall nematode was "the real interesting one."

Once researchers knew what to look for, "we found it everywhere," he said. Part of the problem in tracking it down, he noted, was that leaves that have been attacked "don't look like miconia at all. It hammers the fruit, buds, and flowering parts."

The microscopic nematode had not been scientifically identified until Barreto's work. Now that he knows what to look for, Barreto said, he can find all the nematodes he needs for his studies on a *Miconia ibaguensis* plant near his house.

Tests of possible host plants on 102 species in 58 families have shown the nematode only infects Melastomaceae, Barreto said, and its



Miconia calvescens

potential as a biocontrol agent for miconia in Hawaiʻi is now thought to be "very high."

Fireweed

Fireweed (*Senecio madagascariensis*) is a relative newcomer to Hawai'i, having arrived here only in the 1980s, probably in fodder imported from Australia. Since then, though, it has spread through the islands like – well, fire. More than 400,000 acres of rangeland in the state has been invaded by the weed, which is toxic to cattle and horses. Hundreds of miles of roadside are also covered with fireweed. In moist conditions, the tiny, daisylike flowers paint the landscape yellow. In drought conditions, the fields of yellow turn crispy brown, with the dry plants providing tinder for any spark.

Andy Sheppard of Australia discussed the problems Australia has had with fireweed. "It's the first invasive species you see" on arrival in Sydney, he said. "You spot it out of the airplane window at the Sydney airport." It infests grazing areas in Australia, particularly in the east, from Victoria to Southern Queensland. While in the past it was found usually in coastal areas, it is now moving upland.

With costs of up to \$9,000 per acre to control, and no control measure really being effective, the weed has become a political hotbutton issue. It is the only weed named in manifesto of the ruling coalition parties, he noted, and finding an agent to control fireweed has become a high priority for anyone wishing to remain in office.

The strain of fireweed in Australia (and Hawai'i) actually comes from Natal, in southern Africa, and Australia's search for a biocontrol agent led there. More than two dozen common insects and two fungi were found on fireweed, but none exerted any effective control over the plant.

Sheppard concluded on a glum note. "There's a very low chance of finding a specific enough and effective enough agent," he said, putting the long odds at 20 percent. Despite the "slim chance of success," he said, there's strong community support and political will.

Prospects for controlling fireweed in Hawai'i are not quite as grim, according to the DOA's exploratory entomologist, Mohsen M. Ramadan.

"Unlike Australia," Ramadan noted in an email to *Environment Hawai'i*, "we don't have any native plant species in the whole tribe Senecioneae to care about. ... The Madagascan arctiid moth, *Secusio extensia*, is our first fireweed biological control agent proposed for release, and it seems specific for members of Senecioneae based on host testing and my field observation during two seasons in Madagascar."

Like miconia in Brazil, fireweed is not regarded as a weed in its native range. "In South Africa and Madagascar a handful of insects were attacking the plant from flower head to the roots, reducing its competitive ability and allowing kikuyu grass to grow," Ramadan wrote. "Because of these insects and two rust pathogens, fireweed is not perceived as a weed in its native region, and it grows in batches of less than 100 plants per population."

Even though Hawai'i has no Senecioneae plants, it does have 181 species of aster plants, he continued, with half of the species endemic to Hawai'i and many of them endangered. In experiments designed to see if the arctiid moth would use any related species as a host, or if it would use any species of environmental or agricultural significance as a host, results were encouraging. Of the species tested, the moth attacked only fireweed and two close relatives, Senecio vulgaris (common groundsel) and Delairea odorata (cape ivy), which is also a noxious weed in Hawaiian forests.

In an article published earlier this year in the Journal of Applied Entomology, Ramadan, K.T. Murai, also of the DOA, and Tracy Johnson write that they anticipate that impacts of release of the moth to plants outside the tribe Senecioneae will be minimal. Once released, they continue, the moth will "spread gradually at each release site, reaching damaging levels within a few years."

The state Board of Agriculture has approved release of the moth. Now, Ramadan says, the hold-up is with the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS).

APHIS, Ramadan says, "is concerned about sunflower in Hawai'i, claiming that sunflower is a crop in Hawai'i, so why not use chemicals to kill fireweed instead of biocontrol." On the island of Hawai'i alone, chemical control has been estimated to cost more than \$11 million per year, according to the article in the Journal of Applied Entomology.

Ramadan says that the state responded with new tests that showed 11 percent of the moths will mature to adults on sunflowers, but only during forced-feeding, no-choice tests. Given a choice, the moths will reject sunflower as a host. "Also," he says, "adults will not lay eggs on sunflower" and recent tests have shown that "sunflower will not sustain a continuous population of Secusio."

Kahili Ginger

Invasive gingers have been the focus of Djamila Djeddour, a weed researcher with the Lon-



Kahili ginger (Hedychium gardnerianum)

don-based international organization CABI. All four Hedychium species she has been studying - kahili, white, yellow, and red ginger lily - are native to the Himalayas. Of those, kahili ginger is the most invasive, having been placed on the list of top invasive species by the International Union for Conservation of Nature.

The devastation caused by the massive rhizomes of kahili ginger are easily visible in areas of Hawai'i forest that have been invaded. But the species also is a huge problem elsewhere in the world - Australia, New Zealand, South Africa, and elsewhere. What makes it all the more difficult to control, Djeddour said, is the fact that it "invades pristine forests and does not rely on disturbance."

In 2008, CABI began to look in the eastern Himalayas for possible biocontrol agents. There, her group found several promising biocontrol agents, including a fly, a "huge, very striking, colorful beetle," a moth that "skeletonizes" the leaf, and a rust fungus. "There's a large suite of natural enemies" of ginger, she said, including many

new to science. "The inventory continues to be consolidated."

A test plant list has been approved already for New Zealand, and a list for Hawai'i is "under review." Testing of the potential agents is already occurring in the plants' home range.

"Kahili ginger is a pantropical concern," Djeddour said.

Albizia

Unlike other presenters at the symposium, Flint Hughes, of the U.S. For-

est Service's Institute of Pacific Islands Forestry in Hilo, offered no analysis of prospective biocontrol agents or detailed genetic analysis of an invasive plant. Rather, he had "a humble proposal," pleading with members of the assembled researchers to begin looking for a biocontrol agent for albizia, the invasive tree that has been Hughes' special area of study.

"More and more I've been pulled into the societal and cultural impacts of this species as it invades across places in Hawai'i and across the Pacific," Hughes said.

Albizia (Falcataria moluccana) is a huge tree with a large capacity for nitrogen fixation, he noted. "It is one of the fastest-growing trees in the world and is listed in the Guinness book of world records," he said.

Describing it as a "nightmare tree," Hughes recited a bit of its history in Hawai'i. It was introduced by famed botanist Joseph Rock, who, unaware of albizia's potential, wrote that by the time his albizia trees had reached the age of nine, they were over a hundred feet tall - "a rapidity of growth almost unbelievable."

"The only objection to the tree," Rock wrote, "is its short-lived period, but as it is an abundant seeder, there should always be a good stand of this tree present." Guffaws could be heard in the conference room as Hughes displayed Rock's words on the large screen.

The canopy of a single albizia tree can cover half an acre and shade out native plants, especially 'ohi'a, Hughes continued. It also facilitates invasion by non-native species, particularly waiawi.

Albizia has now become a concern of the state Department of Transportation, he noted. "As stands develop, they become more unstable and are of increasing danger to human health and welfare," he said. In 2009,



The distinctive profile of albizia trees near Ha'iku, Maui.

Counties, Economic Development Boards May Receive Bulk of Energy Security Funds

We're plunking millions into these programs. Do we really know where we are?" asked Sharon Moriwaki, co-chair of the University of Hawai'i's Energy Policy Forum and moderator of last month's Asia Pacific Clean Energy Summit panel on measuring and reporting sustainability achievements.

Indeed, big numbers were thrown around in talks at the summit. In Governor Neil Abercrombie's keynote speech alone: a \$300,000 Department of Energy grant for electric vehicles on Maui; \$6.1 million to the University of Hawai'i to research photovoltaic inverters; and a \$750,000 grant from the state Department of Business, Economic Development, and Tourism (DBEDT) to the Public Utilities Commission.

Establishing performance indicators to assess whether those expenditures are meeting the state's energy goals is "really critical as we go forward," Moriwaki said.

With regard to Hawai'i's environmental response, energy and food security tax more commonly known as the barrel tax – things still seem to be ramping up. The tax has generated more than \$10 million over the last year, deposited into special funds aimed at helping make the state more self-sufficient. But relatively little of that has been spent.

In 2010, the state Legislature passed a bill raising the tax on each barrel or part of a barrel of petroleum product (excluding aviation fuel) from \$0.05 to \$1.05. Most of the money, \$0.60, goes into the general fund. The rest is split four ways, among the state Department of Health's emergency response revolving fund, DBEDT's energy

falling albizia branches caused two serious automobile accidents. On Kaua'i, the DOT spent \$1 million per mile to remove 1,500 albizia trees along Kuhio Highway. Statewide, up to 100 miles of roads under the DOT's jurisdiction are threatened by infestations of albizia.

"Finding a biocontrol agent for albizia is a high priority for the DOT," he noted. Anyone looking for a project with a ready source of funding might well consider this green giant, Hughes said.

When his talk concluded, Hughes was the most popular man in the room.

— Patricia Tummons

security special fund, the energy systems special fund, and the Department of Agriculture's (DOA) agricultural development and food security fund.

By July of this year, the energy security special fund and the agricultural development and food security fund had each received about \$3.9 million as a result of the tax hike. The energy systems special fund, which is supposed to fund research by the University of Hawai'i Hawai'i Natural Energy Institute (HNEI), received about \$2.4 million.

Before the next legislative session, the Hawai'i Economic Development Task Force (HEDTF) must prepare recommendations on whether the apportionment of the barrel tax is appropriate.

So how have the funds regarding food and energy security been spent so far?

According to DOA director Russell Kokubun, the state Department of Budget and Finance prohibited his department from spending its barrel tax money before July.

"They needed one full year of collecting the money before allowing expenditures," he says.

Regarding its current spending plans, he says, "We were given some marching orders in the budget." Half a million dollars will go to UH's College of Tropical Agriculture and Human Resources to support research and \$400,000 will fund the efforts of the DOA's Agricultural Resources Management Division to support irrigation systems, including \$75,000 to an east Kaua'i cooperative that leases state lands.

How or whether any barrel tax funds will be used to help preserve the state's 140 or so state-regulated reservoirs has not been decided, he says. Reservoirs throughout the state are in danger of disappearing if owners are forced to bear expensive upgrade and maintenance costs associated with new regulations approved by the Board of Land and Natural Resources, but as yet unsigned by the governor.

Priorities listed in a DOA report to the 2011 Legislature include funding positions for entomologists and plant quarantine commodities inspectors, hiring food and energy security planners, and continuing the development of a database to track Invicta (the red imported fire ant).

Total 2012-2015 estimated cost for the more than 50 potential ag-related projects

listed in the HEDTF 2011 report to the Legislature: \$43,816,230.

Unlike the DOA, the DBEDT has not waited to spend its funds, although it has only spent a fraction of what has accumulated.

The energy security special fund gets about \$3.5 million to \$3.8 million a year from the barrel tax, says James Bac of the state energy office.

In fiscal year 2011, DBEDT spent some of the money on travel for the HEDTF (which meets in Honolulu), gave some to the counties, and used some to support planning for an inter-island cable and for the development of an online permitting project, he says, adding that about \$167,000 was taken out by two legislative special assessments levied on all special funds.

According to Bac, DBEDT ceased spending barrel tax funds after former office administrator Ted Peck left in January and was replaced by Estrella Seese.

Seese, Bac says, wanted to have a better understanding of what projects were being targeted. For fiscal year 2011, DBEDT spent about \$860,000 of \$3.5 million, which is the current spending ceiling for the fund. DBEDT is seeking to increase that ceiling for FY 2012, Bac says.

With regard to DBEDT's current expenditure plans, Bac says the department has tried to be conscious of the kinds of projects the task force has shown interest in.

"The Legislature says grants can be provided to economic development boards and counties. We're trying to do grants for both so they can pursue projects in their own counties. And they have to report to us," he says.

Memoranda of Understanding between DBEDT and the county economic development boards were completed last month.

"We've got a preliminary spending plan. ... We're trying to make sure we're on board with the director's approval, legislative desires, and the Hawai'i Clean Energy Initiative," Bac says.

Seese did not respond to *Environment Hawai'is* request for more information on DBEDT's expenditures and the MOUs by press time. She did, however, mention that some funds would be used for DBEDT positions that had been supported by American Recovery and Reinvestment Act funds until the end of April. Seese adds that among the eligible funding recipients, the EDBs and the counties are "the two big ones."

Over the past year, county officials have presented the HEDTF with their plans to become more food and energy self-sufficient with the hope that they could receive some of the barrel tax money. Although DBEDT and the DOA have already drafted and prioritized their own lists of projects they want funded, it appears DBEDT, at least, is responding to the counties' pleas.

Hawai'i County, in particular, has been especially aggressive in developing clean energy, developing a wind farm in Lalamilo to supply the electricity needed to run its municipal water system and installing photovoltaic systems on its police and fire stations. The latter, according to Mayor Billy Kenoi, has already saved the county \$1.1 million.

With regard to clean energy research, the HNEI has been unable to spend any of its barrel tax funds because of a problem in the way the legislative budget was drafted.

To help evaluate whether these funds and others are helping the state achieve its clean energy goals, the Hawai'i Energy Policy Forum is developing its own metrics and status reports that will be independent of those from agencies such as the state Public Utilities Commission and DBEDT, according to Carl Freedman, the forum's regulatory re-

Army Ordnance Surveys from page 1

sought clarification from the state Office of Environmental Quality Control (OEQC) on whether the emergency detonation of munitions on state land fell within one of the classes of actions exempt from environmental assessment requirements.

On October 10, the then-OEQC executive director Katherine Kealoha informed then-DLNR director Laura Thielen that her office had extensively reviewed the proposed actions and exemption class categories suggested by DLNR. After discussing the matter with a deputy attorney general, Kealoha said, "we concur that these proposed activities, as identified in your memorandum, fall within the exemption class one." This class exempts from environmental review "operations, repairs or maintenance of existing structures, facilities, equipment or topographical features involving negligible or no expansion or change of use beyond that previously existing."

What the DLNR's memo and the OEQC's response failed to cite were any specific types of actions listed under class one that allowed for ordnance detonation. A review of some of the DLNR's exemption lists suggests that exempting emergency ordnance detonation would require some creative interpretation, depending on where the detonation occurred. For example:

form committee chair.

"All have measurements of a lot of different things. We're more of an objective type of approach," he said, adding that the forum seeks to go beyond the kind of "bottom-up list of accomplishments" like those presented at the conference.

The forum has largely finalized its evaluation criteria, but has not yet begun any data collection or calculations, he said.

\$ \$ \$

Group Meets to Resolve Impasse over Renewables

The state Public Utilities Commission's reliability standards working group, created to help resolve the impasse between the Hawaiian Electric Companies and the renewable energy producers seeking to use their grids, has finally begun meeting.

At last month's clean energy summit, PUC director Mina Morita reported that the group, which now includes more than 50 parties, has met twice. Most of their representatives are lawyers, with a few engineers sprinkled into the mix, she said.

"It's worse than herding cats," she said.

The group, which grew out of the PUC's docket on feed-in tariffs, has been tasked with developing standards that will allow for greater penetration of renewable power into grids controlled by the HECO companies.

"I cannot tell you how critical the work of this group will be moving forward," Morita said.

Engineering and cost issues, PUC funding and resource limitations, and uncertainties regarding long-term leadership and commitment are all potential barriers to developing more clean energy, she said, adding that "solutions are not obvious, not easy, and may not be cheap," she said. And in the end, the rate payer will foot the bill.

Whatever standards the commission ultimately adopts, it will not compromise reliability or increase cost excessively for the sake of more renewable penetration, she said. -T.D.

• The department-wide list of actions under exemption class one covers such things as buoys and signs, and activities related to fire-fighting operations.

• The class one list for the DLNR's Land Division exempts the emergency removal of boulders, rocks, fallen trees and other debris "necessary to maintain state lands in a safe condition," but not when the proposed activity occurs on lands in the Conservation District.

• The exemption list for the Division of Forestry and Wildlife prohibits any exemptions for critical habitats, special management areas, and shoreline areas, among other things.

In any case, with Kealoha's endorsement in hand, the Land Division recommended on December 9, 2010, that the Board of Land and Natural Resources delegate to the chair its authority to issue right-of-entry permits to the Corps for ordnance surveys and remediation on public lands. Up until that time, the department and/or its divisions had quietly issued several right-of-entry permits to the Corps for those very same purposes.

In justifying to the Land Board its opinion as to why no environmental assessment was needed, the Land Division cited exemption class one, as well as classes four (dealing with minor alterations of land, water or vegetation) and five (regarding data collection, research, experimental management, and resource evaluation activities that cause minor disturbance). The report did not state which list it was referring to (i.e., State Parks, Land Division, department-wide) or what specific exempt actions were involved.

When it came time to discuss the matter, Land Board chair and DLNR interim director William Aila said the item needed to be "deferred to the next Land Board meeting because of questions regarding Chapter 343 that needs [sic] to be answered first," the meeting minutes state.

The matter never returned to the Land Board. Instead, on June 14, Governor Neil Abercrombie signed a proclamation suspending 25 state laws, including Chapter 343, to allow the Corps to do its work. The proclamation expires June 30, 2016.

Bait and Switch

Even though the proclamation suspended many statutes designed to protect lands and natural resources, the Corps still needed a right of entry from the DLNR.

On June 20, the Corps approached the Natural Area Reserves System Commission seeking permission to conduct a site investigation of the 'Ahihi-Kina'u NAR even though the proclamation suspended statutes relating to the NARS. At the time of the hearing, neither NARS staff nor the commissioners appeared to know the proclamation existed.

After hearing a presentation by the Corps and its contractor, Element Environmental,



Ordnance blown in place at Waikoloa in west Hawai'i.

commissioners asked what procedures were in place to ensure coordination with the DLNR to prevent or mitigate damage to the reserve and/or its resources.

How the Corps would work with DLNR staff would "all come down to when and how the right of entry is granted," said one Corps representative. "The right of entry will contain conditions and part of those conditions will be complying with those processes that we've agreed to with the various departments within DLNR."

In the end, commissioners agreed that they would be crazy not to let the Army pay for clearing the reserve of ordnance. With the understanding that concerns of the various DLNR divisions would be addressed in the right of entry, the commission unanimously voted to delegate its authority to department staff to make recommendations that would be included in the right of entry.

"My sense is that staff is involved and has some strong opinions," commission chair Dale Bonar said. He added, almost prophetically, "The better the communication, the smoother it will go with everybody."

How or whether the Corps respected those opinions was unclear as of late September.

On July 29, the DLNR granted the Corps a right of entry covering a dozen project sites throughout the state. On August 1, it issued a separate one for the NAR. Neither contained any protective measures suggested during the NARS Commission meeting or any specific measures that might have come from the department's other resource agencies. (The department issued a separate ROE for the NAR to "make a point to the Army" that it was a special place, says Barbara Lee, a project development specialist with the Land Division.)

The blanket ROE covers training areas at the Pali, He'eia, Kahana Valley, Makua, and various offshore islands on O'ahu; four maneuver areas at Waikoloa (including Hapuna Beach State Recreation Area) and the Kulani boys' home on the Big Island; and in Maui County, the Maui airport military reservation and Moloka'i's Makanalua bombing range (Kalaupapa National Historic Park).

Both rights of entry require the Corps to try to limit impacts on existing improvements and minimize inconveniences to the public. They also prohibit open fires or burning of any kind within the right-of-entry area and/or surrounding state property. The Corps will also have to repair or make appropriate settlements for any real property damages.

Any more specific conditions would most likely be included in the Corps' field work plans, which, according to both permits, were not required, but merely "anticipated."

Condition 18 of the rights of entry state that the Corps and its contractors agree to allow the DLNR to make suggestions on the work plan. Those suggestions, however, would be "merely advisory and not intended to allow the Department to mandate any condition or comment into the work plan



5-inch naval artillery round.

which is solely between the United States and its contractor or consultant," the condition states.

Although condition 18 required work plans and reports to be immediately provided to the DLNR, none had been delivered to the Land Division as of late September, less than two weeks before the 'Ahihi-Kina'u survey was to begin and weeks after surveys - yielding three detonations — had begun at Hapuna.

The Land Division, Lee says, is only obligated to receive work plans for unencumbered state lands covered by the rights of entry, although she expects to receive them for the other sites. Plans for lands controlled by other divisions, such as State Parks or DOFAW, would be sent there. NARS staff was not able to confirm whether it had received a final work plan for 'Ahihi-Kina'u by press time.

In any case, Lee says, the Corps "has been pretty cooperative, as far as I understand."

Backlash

After Cox broke the news about the contents

of the proclamation on his September 11 radio show, the Honolulu Star-Advertiser ran a front-page article and a critical editorial about the governor's lack of transparency. Eight environmental and cultural groups, including the Conservation Council for Hawai'i and KAHEA: the Hawaiian-Environmental Alliance, called for its rescission.

At a September 15 public hearing on Maui, Corps representatives spent a large part of their time explaining that the proclamation was not a license to run roughshod over Hawai'i's cultural and natural resources.

The U.S. Army Corps of Engineers must still follow the Superfund law, the Endangered Species Act, and the National Historic Preservation Act as it clears munitions from state and county lands over the next five years, said Gary Shirakata of the Corps' Honolulu office.

The proclamation, which suspends laws ranging from cave protection to noise pollution, simply avoids a duplicative state process, added Patty Billington, deputy district counsel for the Corps.

But it's done more than that, says Sierra Club, Hawai'i Chapter executive director Robert Harris. In a press release last month, he stated that waiving the laws "undermines public goals of transparency, accountability, and community involvement. It also puts the public at risk of harm. Laws governing clean water, clean air, and hazardous materials all exist for a reason."

A full week after Cox's show, the governor's office posted an explanation of its actions on its website and a promise to publicly release all emergency proclamations.

State rules were delaying the Corps's efforts to locate and remove ordnance from some 37,000 acres of state lands, the site states.

"If a solution wasn't found, Hawai'i was at risk of losing millions of federal dollars designated for the clean-up and the work would not be completed," the site states. "The



MK1hand grenade.

Ordnance Survey at 'Ahihi-Kina'u Reserve Receives Mixed Response from Public

Robert Lu'uwai, for one, was glad to see it finally happening, but others seemed to think it was not only a waste of money, but a hassle and an abortion of due process.

Last month in the Kihei Elementary School cafeteria, the U.S. Army Corps of Engineers explained to fewer than 20 Maui residents its plans to locate and clear ordnance, left by the Navy in the 1940s, from the 'Ahihi-Kina'u Natural Area Reserve. The reserve encompasses the Maui Bombing Target - Kanahena Point formerly used defense site (FUDS).

Several members of the public attending the September 15 public hearing expressed their dismay that Governor Neil Abercrombie had suspended a slew of environmental laws in June to facilitate the Corps' survey and cleanup of ordnance on state lands.

"Basically, you're telling us you're going to do this project whether we like it or not," complained one attendee.

But Lu'uwai thanked the Corps for its efforts, at least with regard to 'Ahihi-Kina'u.

For years, Lu'uwai taught his family traditional Hawaiian fishing methods in the reserve under a special use permit from the Board of Land and Natural Resources.

"I don't want to see my grandkids blown

up," he said, adding that the remediation was long overdue.

Others, however, suggested that the state could simply post signs warning people of the presence of unexploded ordnance and advising them to stay on designated paths.

"I don't see the risks. ... It's not a keiki playground," said Kihei resident Larry Armstrong. He added, "1947 might have been an appropriate time to check this out and not 65 years later."

To this and other similar comments, a Corps contract biologist pointed out that public safety isn't the only reason to clear ordnance. Munitions can leak toxins into the environment and affect the reserve's natural resources, she said. (It should also be noted that the October 2010 draft management plan for the reserve includes minimizing the impacts of unexploded ordnance as one of its objectives.)

The Corps and its contractors were expected to begin surveying the 1,300-acre NAR late last month and finish some time in November, said Kathleen Anthony, deputy project manager for Corps contractor Huikala, LLC.

Ordnance experts will survey transects,

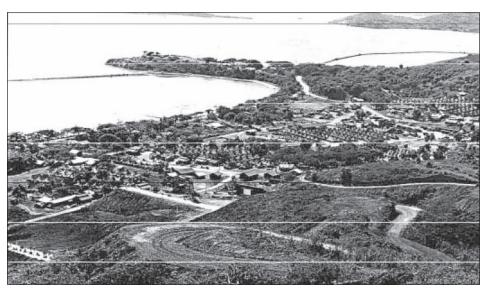


Endangered Hawaiian stilts frequent an anchialine pond at 'Ahihi-Kina'u.

covering only about one percent of the NAR, with hand-held metal detectors and may have to remove some vegetation, she said.

Munitions found on the land would either be removed or, if unstable, blown in place. She added that all munitions disposal actions would be coordinated with various state, federal, and county agencies.

Addressing concerns about the impact the detonation might have on the NAR's terrestrial resources, Anthony said that all threatened and endangered species, cultural resources, and critical habitat would be avoided during the survey.



The He'eia combat training area in windward O'ahu.

Abercrombie Administration sought a solution that was within the law and that got the job done with the necessary expediency. An emergency proclamation was the only solution. The question before the Abercrombie Administration was whether to maintain the status quo approach that was about to end this munitions clean-up effort, or to find a lawful solution that would secure the public's safety."

The website points to the recent discovery and detonation of munitions — two hand grenades and a high explosive mortar — within the Hapuna Beach State Recreation Area as an example of the effectiveness of the state's action.

"These munitions were safely destroyed in place. Without the emergency proclamation, it is likely that the grenade would still be on the beach today," the website states.

In comparing the rights of entry to the proclamation, it seems that there may be more to come. Either that, or the proclamation goes beyond what the Corps actually needs.

Shirakata told *Environment Hawai*'i that while drafting the proclamation, the state had asked the Corps to create a list of projects it could likely complete within five years. Some, but not all, of those projects are now covered by the DLNR's two rights of entry.

The Big Island's Popoki bombing target, was one of the projects the Corps had listed, according to Shirakata, but it's not in-

The reserve includes critical habitat for the endangered Blackburn's Sphinx moth and anchialine ponds that contain several species of shrimp that are candidates for listing under the Endangered Species Act.

After consulting with the state Division of Aquatic Resources, the U.S. Fish and Wildlife Service, and the National Oceanic and Atmospheric Administration, the Corps decided that munitions found in the ocean would be left alone for now, one Corps representative stated.

Not only does the NAR include some of the best coral reef habitat in the Main Hawaiian Islands, it is frequented by the endangered Hawaiian monk seal, hawksbill sea turtle, and humpback whale, as well as green sea turtles and spinner dolphins.Corps contractors will first survey deeper marine areas with an automated sonar device. To avoid damaging live rock and coral, shallow areas along the coast will be surveyed by snorkelers. A remotely operated vehicle will then document munition sites with photos and video. SCUBA will be used to reach areas inaccessible by ROV.

During the survey, those portions of the reserve that are still open to the public may have to be closed for as much as a day, Anthony said. (Most of the reserve has been closed since August 2008 while the DLNR and the community developed a management plan to address overuse.)

Once the survey is done, the Corps will publish its findings and recommendations in a report, or feasibility study, which will likely be released next August, said Huikala's Eric Takamura.

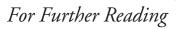
The total budget for the survey is \$2 million, said project coordinator Lori Wong, adding that the cleanup cost will depend on what's found.

"There may be no further action," she said. Similar to an environmental impact statement (EIS), the feasibility study will include various remediation alternatives, including

no action and a preferred alternative, that the public will be able to comment on. "Under federal law, we don't have to do both [a feasibility study and an EIS]," said Pat Billington, deputy district counsel for the

Corps. Because the FUDS program is voluntary, the state could choose a no action alternative. But even if it did, the Corps would still have to recommend protective actions that the state might need to undertake.

"That could vary anywhere from making signs to saying, 'Hey, you have to close the whole place," said a Corps representative at a NARS Commission meeting in June. "By instituting that kind of control, it basically excludes everybody, even including [DLNR] staff, without having the proper safety personnel escorting them through. So it could impact upon your management of the NARS as a state entity, but it could also impact the conservation plan that [the FWS] has in place for the moth, as well." -T.D.



Environment Hawai'i has published several articles over the years regarding ordnance in Hawai'i and the Pacific. The following is a short list. Check them out at our website, www.environment-hawaii.org.

"From Fertile Fields to No-Man's Land: The Transformation of Waikane Valley," August 1992;

"Restoration, not Condemnation: Hawai'i has no Land to Spare," Editorial, August 1992;

"Bombs Old and New Devastate Reefs in the Northern Mariana Archipelago," August 1998;

"Marines' Plan for Jungle Training in Waikane Valley Reopens Old Wounds," May 2003;

"Ordnance Survey Raises Concerns Among 'Ahihi-Kina'u Managers," August 2011.

cluded in any right of entry. A July report by the Corps also includes the Popoki site in its list of projects for FY 2012.

And although Kaho'olawe is not included in them, the proclamation suspends Chapter 6K of Hawai'i Revised Statues, which relates to the Kaho'olawe island reserve.

Shirakata also suggested that the proclamation's statement that available funding over the next five years was estimated to exceed \$100 million is an exaggeration.

"One-hundred million dollars is not a good number," he said, explaining that it was based on the Corps' annual budget over the next five years. The Hawai'i district receives between \$14 million and \$16 million a year, Shirakata says. That comes to a total of, at most, \$80 million over five years.

Whether the five-year budget is \$80 million or \$100 million, Corps representatives have stated that, because the FUDS program is voluntary, failure to secure permission to proceed in a timely manner may

result in eligible remediation sites being

dropped from the list forever.

When Environment Hawaiʻi asked whether funds for the work were ever in danger of lapsing and how much, exactly, the

Corps encumbered once it received the ROEs, Corps community relations officers said they did not have those answers and suggested filing a Freedom of Information Act request. – Teresa Dawson



CORPS OF EN

BOARD TALK

Army Wins Permission to Train Pilots on Mauna Kea, Mauna Loa

In a 4-2 decision, the state Board of Land and Natural Resources approved a rightof-entry permit to allow the U.S. Army to conduct high-altitude helicopter training on Mauna Kea and Mauna Loa this month. The board also voted, the same way, to accept the Army environmental assessment's (EA) finding of no significant impact covering the activity.

The training — called High-Altitude Mountainous Environment Training (HAMET) – is intended to prepare 90 pilots and crew deploying to Afghanistan in January.

"In Afghanistan, we've experienced several tragic incidents [that have] mandated this type of training be done," Army commander Frank Tate told the board.

Even so, some board members opposed the training because of potential impacts to Mauna Kea's population of endangered palila



DLNR staff, Army personnel, and others prepare to board a helicopter for a July tour of the proposed landing sites on Mauna Kea and Mauna Loa.

(*Loxioides bailleui*), whose numbers have plummeted in recent years.

This past spring, in a literal change of course, the Army decided it would fly over palila critical habitat to reach landing sites on Mauna Kea. Despite concerns raised by the U.S. Fish and Wildlife Service about possible noise impacts and fire threats in the event of a crash, the Army rejected the service's recommendation that it engage in informal consultation.

Big Island board member Rob Pacheco asked what the drawbacks were of using just Mauna Loa.

The whole point of training on the mountains is to expose the pilots to wind and weather conditions they're likely to experience in the field, Tate said. The milder climate around Mauna Loa represents the "crawling stage" in that training, while the conditions around Mauna Kea are much closer to the swirling winds of the Afghan mountains, he said.

He added that the Army had received a permit to do similar training in 2003.

Impacts

Cultural practitioners Mike Lee of O'ahu and Big Island resident Hank Fergerstrom both expressed their opposition to the training because Mauna Kea and Mauna Loa are sacred religious symbols.

Fergerstrom, a spokesperson for the group Na Kupuna Moku O Keawe, argued that the Army was trying to circumvent the state's Conservation District Use Permit process, adding that an environmental impact statement should be done for the proposed training.

The Army's cultural impact analysis was "offensively insignificant," KAHEA's Marti Townsend later added.

When Land Board chair William Aila asked Fergerstrom whether there were conditions in which spiritual harm could be mitigated, Fergerstrom admitted that was a hard question to answer, since Hawaiians are very secretive about their religion.

"It's heart-wrenching to reveal secrets placed in our care," he said. "It borders on a First Amendment issue."

But with the Army's use over the past several decades of the Pohakuloa Training Area, located in the saddle between the two peaks, "how is this 30 days, with very limited touch-down, going to have a significant impact over what's going on?" Pacheco asked.

To this, Fergerstrom said he has always opposed the training at PTA.

Earthjustice attorney David Henkin also objected to the use of Mauna Kea and Mauna Loa. He noted that the EA's alternative three, to train only on Mauna Loa, met all of the Army's needs. Alternative five — mainland training — was also feasible, but would cost more time and money and would affect the soldiers' quality of life.

Ninety-six percent of the remaining palila in the world are in the core habitat that the Army plans to fly over, Henkin said, adding that until the draft EA was released, the FWS was under the impression that the Army would not cross it.

"This species is on the ropes. ... The state has a legal responsibility not to authorize activities on its property that will take endangered species," he said.

Henkin argued that the Army had admitted that its training may impact palila and was, therefore, required to consult with the FWS, a notion that Army environmental attorney Kerry Abramson disputed.

"We did not come to that conclusion," he said.

Should the board chose to allow training to occur, Henkin urged it to limit it to Mauna Loa.

"In life, you don't always get the preferred alternative. You get the alternative that is good enough. ... [Using just Mauna Loa] is the lesser of two evils," he said.

A 'lose-lose' situation

After an executive session, Pacheco explained that he could not support a FONSI determination if the training includes palila critical habitat. He said he knew the area very well and that if a helicopter did crash, with the remoteness of the slope, "it would have a really deleterious effect."

"It's hard to quantify the loss of training for troops... in relation to the potential risk of losing a species. For me, it's a line I'm not willing to cross," he said.

At-large member David Goode was also concerned about the palila, but was leaning toward approval because the training would occur for a short time.

"This just feels like the biggest lose-lose," he said. He added that an environmental impact statement should accompany any future permits.

In the end, Aila, Kaua'i member Ron Agor, Maui's Jerry Edlao, and Goode voted in favor of the FONSI and the permit on the conditions that helicopters stay at least 2,000 feet above palila habitat and that the Army provide immediate fire suppression. Pacheco and at-large member Sam Gon opposed them. All members, however, agreed that an EIS needed to be done for any future training in the area.

"This has been very, very hard," Aila said.

<u>*</u> * *

Forestry Division Seeks Bids For Native Bird Projects

Talk about a change of heart.

A decade ago, the Land Board turned away a non-profit group, backed by founda-

tion money, interested in managing and conserving the natural resources on 21,000 acres of state land at Pu'u Wa'awa'a in North Kona. The group, Ka Ahahui O Pu'u Wa'awa'a, included former Land Board member and Hawai'i County planning director Chris Yuen and noted Stanford University biologist Peter Vitousek.

The board's decision, which was not unanimous, hinged, in part, on testimony from the Division of Forestry and Wildlife's Big Island staff. In a letter to the board, staff argued that the division could handle the resource management burdens of the area on its own.

Fast forward ten years: DOFAW is now asking the Land Board to hire private entities to conduct a variety of natural resource management activities throughout the state, including at Pu'u Wa'awa'a. On September 9, DOFAW sought Land Board approval to allow companies to bid on more than two dozen projects intended to protect native birds.

A list of 16 potential projects in DOFAW's report to the board includes the management of the 3,800-acre Pu'u Wa'awa'a forest bird sanctuary (\$75,000), Mauna Kea forest restoration (\$300,000), and seabird recovery on Kaua'i and Lana'i (a total of \$1 million). Total state and federal funds available for the projects: \$6,238,358.

The board, without questions or comments from the public, unanimously approved DOFAW's request.

Two weeks later, the board was expected to vote on another DOFAW request to send work out to bid, this time for removal of feral cattle from the Wai'anae Kai forest reserve.

* * *

Oʻahu Forest Reserve System Gains Thousands of Acres

At its September 9 meeting, the Land Board approved the withdrawal of 146 acres from O'ahu forest reserves and added 5,730 more.

Roughly 80 acres removed from the Waimanalo forest reserve had been given to the state Department of Agriculture in 1998 for an agricultural research center and related purposes. Nearly 65 acres went to the Boy Scouts of America in 2004 in exchange for private lands in Waikele. The remaining 0.59 acres, the site of a reservoir, had been set aside to the Honolulu Board of Water Supply decades ago.

The largest addition, 3,592 acres in Honouliuli, was once a preserve managed by The Nature Conservancy and was acquired by the state in 2010. — *T.D.*

Parker Ranch IAL Petition Gets Speedy Approval from Land Panel

It was a day of extremes. One of the largest areas subject to a Land Use Commission petition – roughly 57,000 contiguous acres – was disposed of in one of the shortest LUC meetings in recent memory – less than 45 minutes long.

On September 8, the commission met in Waikoloa to consider the petition of Parker Ranch to give Important Agricultural Lands (IAL) designation to a swath of land stretching across much of the northern slope of Mauna Kea, from Saddle Road, in the west, to near Honoka'a, in the east.

Just two members of the public testified: one was the head of the North Hawai'i Community Hospital in Waimea (a beneficiary of the trust established by former ranch owner Richard Smart), the other was the herd veterinarian for the ranch. Both were in favor of the petition.

Russell Kokubun, head of the state Department of Agriculture, flew in to show his support for the ranch. When invited to comment, however, he said he would stand on his written testimony submitted in August.

After what can only be described as perfunctory questioning of the ranch's CEO, Neil "Dutch" Kuyper, by the ranch's attorney and commissioners, the LUC voted, 7-0, to approve the petition.

Little Prime Land

Under the state classification system of Agri-



Keoki Wood of Parker Ranch showing the vast pasture lands that are part of the IAL petition.

cultural Lands of Importance to the State of Hawai'i (ALISH), just 2.4 percent of the 56,771.8 acres in the petition area meets the definition of "prime" — that is, having a soil quality, growing season, and water sufficient to produce sustained crop yields economically. The rest of the land is either rated as "other" (those not rated as prime or unique), or "unclassified." According to the University of Hawai'i's Land Study Bureau, 64 percent of the lands are rated "D" on a scale of A to E (with E being least productive).

In fact, most of the land is in pasture that supports the 12,500 head of cattle that make up the ranch's herd. (The ranch also owns, at any given time, roughly the same number of





Address Service Requested





Keoki Wood of Parker Ranch (right) and members of the Land Use Commission on pasture land subject to the IAL petition. In foreground is commissioner Jaye Napua Makua, with Office of Planning administrator Jesse Souki in center.

cattle in feedlots or pasture on the mainland.) About 10 percent of the area in the petition – 5,594 acres – is leased to Cambium Pinnacle, Inc., for a eucalyptus production.

Jesse Souki, director of the state Office of Planning, said his office supported the petition in its written comments, but he wanted to "highlight some portions" of it to the commissioners. "One of the [Abercrombie] administration's priorities is agricultural renaissance," he said. "The designation of important agricultural lands is an important component of this."

One of the chief concerns in reviewing the appropriateness of IAL designation for a given area is the availability of water, he noted. If available water is insufficient to allow for profitable farming, then IAL designation should not occur, he said. In the case of the petition area proposed by Parker Ranch, "based on representations now, there is enough water available for ongoing activity." Although nearly all the area receives less than 30 inches of rainfall annually, the ranch has an extensive water system that pumps 440,000 gallons a day of stream water from Kohala to tanks scattered throughout the pastures. Most of the 7.5 million pounds of beef produced by Parker Ranch annually goes to mainland markets. Young calves are raised on the ranch for five or six months, then are shipped (mostly by air) to the mainland, where they are fattened on feedlots in Kansas, Texas, California, and Oregon. About 1,200 head a year are slaughtered locally and turned into ground beef for Hawai'i markets. Just 200 head are slaughtered and sold locally as grass-fed beef.

The Parker Ranch production accounts for 40 percent of the local beef production, which in turn accounts for just 10 percent of the beef sold in Hawai'i markets.

Kuyper was asked by LUC Chairman Normand Lezy whether the ranch intended to increase its percentage of local market share.

"The reality is that all ranching in Hawai`i is an energy-intensive business," Kuyper replied. "As energy prices have risen, anything that consumes energy is a larger portion of costs. To mitigate that, most ranches are aggressively looking at increasing their local share of the market. We expect it to increase dramatically in the next three to five years."

Other LUC Dockets

On May 12, the LUC approved the petition for designation of 1,533 acres in southeastern Kaua'i as IAL. The land, once part of Grove Farm, was transferred in January to a new Delaware-registered entity, Maha'ulepu Farm, LLC. (For details on the petition, see the May 2011 edition of *Environment Hawai'i.*)

The petition of D.R. Horton/Schuler Homes seeking to shift about 1,530 acres of land in 'Ewa, O'ahu from the Agricultural to the Urban district took an odd direction recently, as the LUC voted to grant intervenor status to state Senator Clayton Hee. Other intervenors are the Friends of Makakilo and the Sierra Club. Hearings on the petition are to begin later this month. Approval of the petition is required before the developer can start work on a mixed-use project involving more than 11,000 houses. Intervenors argue that the land should stay in agricultural use, as it is some of the most productive farmland in the state.

The evidentiary hearing on a project in Kula, Maui, has concluded. The developer, Kula Ridge Mauka, LLC, has already won county approval for the 48-acre project, where more than half of the houses to be built will be designated as affordable for low-income households. At the LUC hearing on the project in late August, members of the community testified in opposition, citing concerns over preservation of significant historic sites and sources of water. The parties in the case – the developer, Maui County, and the Office of Planning - were to have submitted their proposed findings of fact by late September. A decision is likely to be made next month. -P.T.