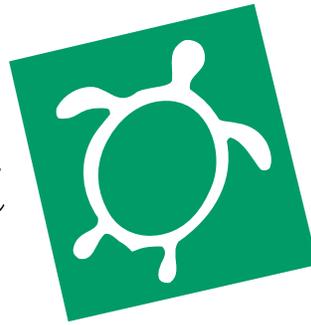


Environment



Hawai'i

Price: \$5.00

At Long Last, Water

It's been a long wait for East Maui taro farmers, but the state Water Commission seems, finally, to have come up with a decision that gives them at least part of what they've been demanding for nigh on eight years.

And with the commission having made its move, the path is clearing for the state Land Board to re-engage on a pending contested case over rights to some 160 million gallons a day of water from the rain-soaked eastern slopes of Haleakala.

As welcome as the progress is, the fact that the wheels of justice have creaked along at such a glacial pace is an outrage. Aggrieved citizens have been needlessly burdened with the denial of rights, lost income, and inconvenience – to say nothing of out-of-pocket expenses – that no amount of water or money can rectify.

The legal and procedural morass described by Teresa Dawson in this issue should not be inflicted on anyone. The Water Commission and the Land Board should move swiftly to resolve the many questions remaining before them over whose claims to East Maui water have priority.

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Water Commission Amends Standards For Six Diverted East Maui Streams

The hearing began on a gray, rainy September morning that brightened as the day unfolded. From their seats in the Haiku Community Center, members of the state Commission on Water Resource Management faced a sea of some 200 people, some standing, others crowded on rows of cafeteria benches.

Many of those who came to testify or show their support by their presence alone wore their positions on their backs. A score of Filipino women sat to one side of the room wearing bright red T-shirts neatly printed with the name of their employer, HC&S (Hawaiian Commercial & Sugar), the state's last remaining sugar plantation and largest recipient of the roughly 160 millions of gallons of water a day that its parent and sister companies – Alexander & Baldwin and East Maui Irrigation Co. – divert from more than 100 East Maui streams. Opposite the HC&S crowd, people clad in plain white T's sporting slogans handwritten with black markers posted a large sign that read: HAWAIIANS WATER RIGHTS FIRST. A message on one shirt demanded: PUT IT BACK.

And after two grueling days of technical presentations by Water Commission staff and testimony from dozens of Maui residents, the commission voted, for the first time since interim instream flow standards were set 20 years ago, to return diverted water to East Maui streams.

The commission's decision addressed the flows of just eight of the 27 streams that were the subject of petitions filed seven and a half years ago that sought to amend stream flow to provide sufficient water to grow



Many of the East Maui Irrigation system's diversions, like this one, are designed to take the base flow of streams.

PHOTO: COMMISSION ON WATER RESOURCE MANAGEMENT

taro, support traditional and customary gathering, and restore natural habitats. For Wailuanui, Waiokamilo, Hanehoi, Honopou, Huelo, and Paluhulu streams, the commission voted to increase the IIFS. For Kulani and Pi'ina'au streams, the commission chose to keep the flow standards at status quo. While the total amount of water to be returned is unknown since there isn't enough data on current flows, under the new standards, flows in the six streams total more than 10 million of gallons of water a day (mgd).

As for the flow standards for the 19 other streams, the commission plans to complete a comprehensive assessment of all 27 streams and reevaluate its decision about a year from now. In the meantime, Water Commission chair Laura Thielen said after the vote that her staff will work with EMI on short- and long-term changes to its diversion infrastructure to make sure that minimum flow standards for natural habitats and for those with superior water rights are met before water is diverted for offstream uses.

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Hawai'i

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NEW AND NOTEWORTHY

Backtracking: In 2006, the Board of Land and Natural Resources, bowing to pressure from the Natural Energy Laboratory of Hawai'i Authority, lifted the requirement that subleases for NELHA tenants be approved by the Land Board or its chair. NELHA administrator Ron Baird was chafing under the Land Board's oversight, which he claimed dragged out the approval process.

Last month, the Land Board was asked to approve an attornment agreement relating to the NELHA sublease to Cyanotech, one of the larger tenants. The approval was required because of several oversights and mistakes made in documenting a mortgage Cyanotech had obtained earlier this year. An attornment agreement assures the sublessee – Cyanotech – and its creditors of its right to remain a tenant even if the master lease is lost.

In its report to the board, Land Division staff recommended that, should a similar event occur in the future, "the BLNR consider reinstating its authority to review and consent to all subleases issued by NELHA as a means to ensure that

NELHA's subtenants are acceptable to the BLNR and Department."

Land Board deputy director Russell Tsuji says the problem hasn't come up much, but if it should become more frequent, he will advise the Land Board to return to requiring board review of NELHA subleases. "If every sublessee is going to ask for this," he told *Environment Hawai'i*, "we might as well review the underlying sublease to begin with."

On the Brink of a Shutdown? In her zeal to cut state spending, Governor Lingle has ordered all departments to submit for her personal approval any contracts over \$10,000. And the result has been a near-catastrophe for some of the state's most important natural resource programs, including island invasive species committees, or ISCs.

Almost all ISC staff are so-called temporary hires paid through a contract between the state and the Research Corporation of the University of Hawai'i. On October 15, the contract for the Big Island ISC ended, forcing the layoffs of nine people. The next day, Lieutenant Governor Aiona signed a purchase order bringing them back, but not before the staffers – who work to curb such invasive plants as miconia and strawberry guava and invasive animals such as the coqui – had been led to despair over their future.

According to Paul Conry, head of the Department of Land and Natural Resources' Division of Forestry and Wildlife, "we did end up with maybe some staff having one or two days of leave without pay before the paperwork could get through."

Other programs that will need to have paperwork processed soon to keep staff on board include Maui and O'ahu ISCs, the Kaua'i Endangered Plant Program, the Kaua'i Endangered Seabird Program, the Leeward Haleakala Watershed Restoration Project, and the Natural Area Reserves System. Some of these projects include federal matching funds; if the state cannot ante up its share, federal dollars will be lost as well.

Conry seems to think the problem is being

addressed. The initial hiccups came when "a number of contracts were on the verge of being signed, right when the governor's directive hit." Now, he says, "we've got requests being processed, and they seem to be going through."

Irradiator Dispute Keeps Simmering: The dispute over a proposal to build a food irradiator near the Honolulu International Airport has seen several key developments recently. In October, the Atomic Safety and Licensing Board rejected the effort of the irradiator developer, Pa'ina Hawai'i, to have the board find that it was now categorically exempt from review under the National Environmental Policy Act. Although the Nuclear Regulatory Commission staff had made a claim of a "categorical exclusion" for the irradiator in 2005, in a settlement worked out in April 2006 with irradiator opponents Concerned Citizens of Honolulu, the NRC staff agreed to prepare an environmental assessment for it.

The ASLB was unequivocal in rejecting Pa'ina's request. "Once the staff prepared the environmental assessment, the issue of whether the 'categorical exclusion' status under NEPA applied to the ... irradiator became moot and totally irrelevant," the ASLB found. "Further," the ASLB continued, Pa'ina's motion "evidences a serious misapprehension of the various procedural rulings in the proceeding." The motion "is meritless and denied," the board concluded (emphasis in original).

Still before the board is the more serious issue of how to deal with the 12-page environmental assessment for the project that Concerned Citizens argues is seriously deficient. David Henkin of Earthjustice, the attorney for Concerned Citizens, explains: "Under NEPA case law, the environmental assessment is supposed to disclose all of the project's potential impacts as well as reasonable alternatives that could achieve the project's goals with less environmental harm. You're not supposed to remedy deficiencies by just adding more information" in front of a hearings board, without the possibility for public review and comment. Instead, Henkin argues, the EA should be rewritten and once more be placed before the public for comment.

Last, but not least, in August, the NRC overruled the finding of the Atomic Safety and Licensing Board that the safety of irradiated food should be addressed in an environmental assessment. In doing so, it rejected the contention of Concerned Citizens, saying that for the NRC to undertake such an analysis would be second-guessing the Food and Drug Administration.

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Quote of the Month

"Hawaiians have first crack."

— Lawrence Miike,
water commissioner,
on water rights in East Maui

Varroa Mite Control Efforts Face Financial, Technical Roadblocks

Neil Reimer, head of the state Department of Agriculture's Plant Pest Control Branch, is confident that his staff's emergency efforts over the past few months have halted the spread of *Varroa destructor*, a parasitic bee mite, on the island of Hawai'i, which is the heart of the state's diversified agriculture, organic honey, and queen bee rearing industries. But the fight to contain the pests is far from over. With Governor Linda Lingle's recent orders that all state departments cut their budgets next year by 28 percent, he worries about his branch's ability to contain the mites, which have already devastated O'ahu's apiaries.

The state's ramped-up monitoring and control measures in Hilo, which have tapped quarantine inspectors from all major islands, have all but wiped out the branch's annual budget of \$50,000 to control all invasive species statewide. Although the state Legislature appropriated \$650,000 this year for varroa control, most of that money has gone to University of Hawai'i researchers to develop a baiting system.

"Within the first two and a half weeks [following the discovery of the mite in Hilo], we spent \$45,000. We're probably out of money," Reimer says, adding that the U.S. Department of Agriculture and the Big Island's beekeeping industry have pitched in as well. "We've never had enough money to set aside for a rapid response program," he says.

In addition to the bleak financial picture, Reimer says he is concerned about the mite escaping urban Hilo. Bee swarm traps placed in and around the large forest adjacent to the Hilo airport have so far not yielded any mites, but should the mites gain a foothold there, controlling them would be a nightmare, since there are few access roads and potential impacts to native fauna could hinder the use of the pesticide bait traps.

To add to Reimer's woes, there is evidence that the experimental poison being used in Hilo's baited traps may actually be a bee repellent. Without bees taking the bait, the likelihood that the mites will migrate into the forest is all the greater.

Escape from O'ahu

After Manoa beekeeper Michael Kliks first discovered the mite in his hives in April 2007, the DOA surveyed dozens of hives

throughout O'ahu and determined that the mite's wide distribution suggested it had most likely been on the island for at least a year. Despite calls by Kliks and others to eradicate the mites by killing all wild and managed honeybees on the island, the DOA chose instead to focus on trying to control mite populations on O'ahu and prevent their spread to the outer islands.

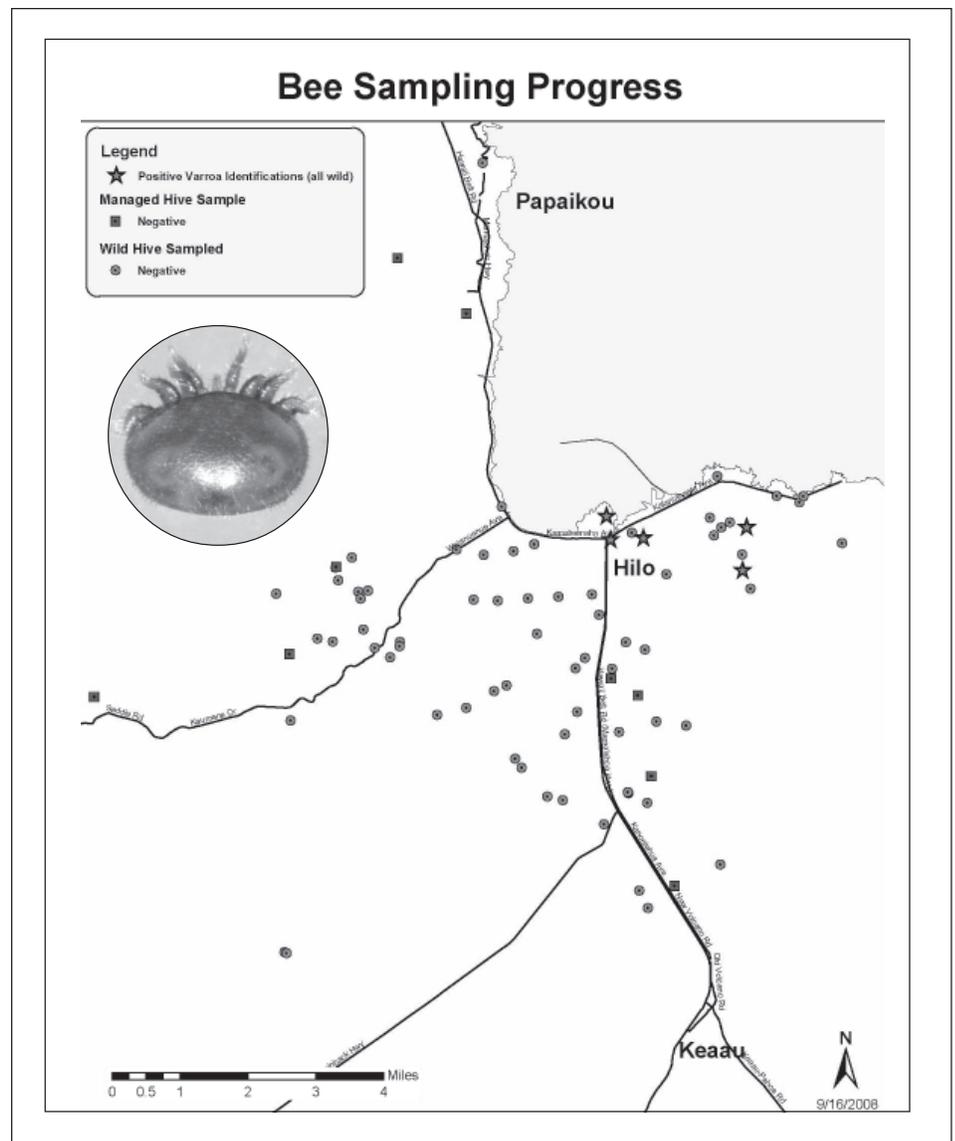
Initially, the DOA proposed paying O'ahu beekeepers to destroy their hives to knock down bee populations. While the Legislature appropriated \$650,000 to assist this effort, the buyouts never happened.

"We had a lot of meetings," Reimer says, adding that while Big Island beekeepers estimated that a single beehive was worth about \$250, "O'ahu guys wanted \$1,000 a

hive." Reimer also says that some beekeepers were splitting their hives in hopes of getting more money. Instead of compensating beekeepers, the DOA used the money on other mite control efforts, including a \$450,000 contract with the University of Hawai'i to develop a baiting system.

The DOA set up swarm traps near ports of entry on all islands, tried to kill all bees around O'ahu's ports, and restricted the movement of bees and beekeeping equipment between islands. Despite these efforts, the mites showed up on August 22 in a swarm trap near the Hilo Seaside Hotel, on the road between Hilo's harbor and its airport. Reimer says it is likely the mites arrived via a single bee on an airplane or boat.

At the time of the discovery, Reimer had only two people on Hawai'i island doing invasive species control and monitoring swarm traps every two weeks for varroa mites and other pests like tracheal mites and Africanized bees. After the mites



showed up, "We went into an instant command system, which is used in disaster situations like hurricanes and forest fires," Reimer says.

Under this new organizational structure, the department appointed DOA entomologist Patrick Conant, based in Hilo, as instant commander and began flying in plant quarantine inspectors from O'ahu, Maui and Kaua'i to help erect 150 to 200 more swarm traps throughout the area. Beekeepers within a 15-mile zone agreed not to move any bees or equipment, and inspectors eliminated more than 100 hives, about 76 of which were feral.

In each of the managed hives, staff "sacrificed" about 500 bees, which would be shaken in a jar with alcohol or soapy water and put through a filtering system to separate out any mites. Feral hives were much more difficult to sample and required the use of converted leaf blowers to suck out 1,000 or so bees from those hives, Reimer says. Of the hives located, mites were found at five sites in low densities, which is good, Reimer says, as it suggests that the DOA caught the infestation early.

With permission from the U.S. Environmental Protection Agency, the DOA has randomly placed bait stations throughout Hilo containing the pesticide chlorpyrifos, diluted in honey, as well as a fluorescent dye to track bees that have taken the bait. Beekeepers who find fluorescent bees in their apiaries have agreed not to sell honey from those combs.

The bait stations have been set within a half a mile radius of each swarm trap, Reimer says, adding that when foraging in a desert situation where there are few food sources, bees are known to travel up to five miles.

"We wanted to get into poison baiting all along," Reimer says, but research takes time and the mite escaped to Hawai'i before the UH team could complete its work. Now, the DOA and UH are doing their own "seat of the pants research" in Hilo, he says.

Broader Impacts

Shortly after the mites were discovered on O'ahu, Reimer projected in a commentary for the *Honolulu Advertiser* that the value of local, bee-dependent crops such as cucumbers, watermelon, and squash could drop from about \$126 million a year to about \$42 million if the mite were to become widespread. The state's \$1 million honey and beeswax industries and the even larger queen-production industry in Kona would also be devastated, he wrote, adding that backyard fruit trees, such as mango,

avocado, lychee and other garden plants would produce less fruit as well.

According to Kliks, who is also president of the Hawai'i Beekeepers' Association, honey production on O'ahu has already tanked as the island's managed hives have dropped from about 1,000 to about 150. Since the mite's arrival, Kliks's own hives have gone from 300 two-and-a-half years ago to about 60. Despite his personal losses, Kliks is most worried about the mites' impacts on diversified agriculture.

"Pollination is the real problem. Honey is manini," he says. Bee-dependent commercial crops and backyard and community gardens make up between 7 and 8 percent of the state's food supply, he says, adding that, "when the perfect storm hits...we're going to find ourselves quarantined and there will be no food to help us."

Although the mite has been on O'ahu for a few years, no studies have been done on the effects it has had on total honeybee populations or on pollination, although Kliks has noticed that all of the wild sentinel hives he tracks have disappeared. Such studies "would be nice," Reimer says, "but we don't have the resources." There is, however, a UH contract to study bees that survive the mites, he adds.

Alan Takemoto, executive director of the Hawai'i Farm Bureau Federation, says he hasn't received any information on reduced crop yields on O'ahu, but adds "that's not to say it's not happening....It's going to take a toll over several years and farmers are looking at alternative ways to increase honeybee production. It's a huge issue."

Kliks says that growers have been coming to him for bees. "I'm getting a few calls to pollinate. I'm getting committed," he says.

While the mite has the potential to cause the loss of tens of millions of dollars in crop losses and damage to bee-related enterprises, Reimer says it is unlikely that a depressed honeybee population will have any effect on native ecosystems, since other pollinators, including a native bee, exist.

Future Control

While the state kicked its control efforts into high gear following the discovery of mites in Hilo, critics, including Kliks, say the mite problem should never have gotten that far and argue for more aggressive measures to protect pollination-dependent agriculture, as well as those businesses that depend directly on honeybees. Kliks continues to maintain that all honeybees on

O'ahu should be killed.

Whether the state is financially capable or politically willing to pursue that is doubtful.

In a September commentary for the *Honolulu Star-Bulletin*, Department of Agriculture director Sandra Lee Kunimoto wrote, "Some people felt the state should have attempted eradication on O'ahu, despite the exorbitant cost and the improbability of success. A beekeeper [Kliks], who has not killed his own infested bee populations, proposed that National Guard troops be deployed to the mountains and valleys to kill feral bees – an unrealistic proposal and inefficient, improper use of our National Guard. To attempt to locate and kill every wild bee population on O'ahu would be futile and would not guarantee eradication. In the meantime, agriculture on O'ahu would be devastated without these pollinators. Such an effort also would hurt other native and beneficial insects."

Echoing some of Kunimoto's concerns, Reimer says that an effort to kill all honeybees on O'ahu would be devastating to the environment and, in any event, such a program would need to go through the state's environmental review process. What's more, a December 2007 DOA report on the mite states, "There are no tools or techniques available for the removal of thousands of feral bee hives in the Ko'olau and Wai'anae mountains that would not also have a catastrophic impact on native insects and other biota."

In response to Kunimoto's apparent personal attack, Kliks says, "Had the governor or state come up with a plan with a date certain [to launch a honeybee eradication program on O'ahu], I would have been one of the first guys to kill them." And despite the obstacles raised by the DOA, Kliks believes eradication is still possible.

"The obvious chemical is fipronil and on day zero, you set up tracking stations with honey and wait until you get 1,000 bees per hour visiting traps set at five mile intervals. With a small island like O'ahu, you only need about ten of these stations. They don't have to be in remote areas; they can be along roads, in town, anywhere, all over. When you get that number of visitors you lace it with a tiny amount of fipronil...It's widely used. I'd be willing to bet you have it in your hair and skin. It's used for flea control of cats. [It is also an agricultural pesticide.] To raise the argument that it would be dangerous to release to kill honeybees is scientific absurdity," he says.

Regarding concerns about impacts of an eradication program on non-target insects,

Managing Infestation

What can beekeepers do, short of closing shop, if varroa mites infest their hives? While miticides effectively kill the mites, the trouble and costs involved in controlling the pests may be too much to bear. According to state Plant Pest Control Branch administrator Neil Reimer, miticides will kill 95-100 percent of the mites in a highly infested hive. However, he adds, there is evidence that mites on the mainland are developing a resistance to Apistan (fluvalinate), the most commonly used pesticide. Mite Away II (formic acid), ApiLife VAR (thymol), and ApiGuard (thymol) have also been approved for use, and as of December 2007, the DOA was working on two others, Sucroside (sucrose octanoate esters) and Check Mite (coumaphos).

Michael Kliks, president of the Hawai'i Beekeepers' Association, says that Apistan can contaminate beeswax, "but is safest [miticide] that still has punch." While miticides effectively control the mites, they limit the amount of saleable honey a hive can produce. Apistan, for example, must be used on an infested hive for 42 days, during which time no honey can be taken. "You will suffer bee losses and you can't

take honey for two months. The most important time to treat is...the most productive time for honey. We're losing a third of our annual production. I've lost close to 200,000 pounds of honey," Kliks says. While he says only two of his colonies have "reverted to mite positivity" following treatments, he adds that maintenance costs per colony triple once they become infested.

Pesticides are not an option for organic honey producers and can also hurt the queen breeding industry. For those industries, Kliks says there is an organic gel that can be used. Reimer says that in other places, beekeepers have tried sprinkling bees with powdered sugar to make them too slippery for the mites to cling to. But, he says, this is expensive and what's more, in humid Hawai'i, the high humidity might cause the sugar to clump.

Yet another possible control method is to shrink the combs from which the bees emerge, Reimer says. Smaller cells shorten the bees' gestation period and result in smaller bees and would also prevent the mites that are encased in the cells with the bees from fully developing.

In addition to controlling mites in

the hive, Kliks proposes that the state should establish a bee supply source on remote parts of the islands to make sure that there is always a cache of mite-free bees. He also favors imposition of strict protocols over interisland transport of bees. While Kliks says that the DOA believes it's safe to send Kona bees to Moloka'i, since Kona is believed to still be mite-free, "The only way to really tell if a colony of bees is infested with varroa is if you kill all bees in the colony and you subject them to an alcohol shake, and then you look." Short of doing that, Kliks suggests that large-scale beekeepers kill all of the bees in three percent of their colonies. If mites are not detected, all bees from every fifth colony should be killed and sampled. If mites are still not found, they should then do 500-bee sample from their remaining colonies. If mites are still not found, then Kliks believes the bees should be safe to ship, so long as they are dosed with Apistan. Once they arrive at their destination, they should be tested again.

This strict protocol, Kliks says, would reduce the risk to a "1 in 10,000 chance that you blew it." — *T.D.*

Kliks says that research by Mark Goodwin of New Zealand shows that fipronil killed all honeybees within five to seven miles of bait stations and although non-target insects were harmed, their number was "so small, it's not relevant. The main area of concern would be [the native bee] *Hylaeus*, but they don't visit honey."

Whether or not fipronil would harm native and beneficial insects, UH researcher Mark Wright, who is leading efforts to develop a bait system, says, "It's a pipe dream to destroy everything on O'ahu. We don't have a way to do it."

While he says the impacts on indigenous forest insects are questionable, Wright notes that fipronil's manufacturer, BASF, has refused requests for permission to use the poison to kill bees, since, "it would be a bad reputation for an agricultural pesticide to have." Kliks and Wright both say that there are ways around BASF's reluctance. Wright says that there doesn't seem to be the political will in Hawai'i to pursue them.

Kliks puts it more bluntly: The DOA would need exemptions from the FDA and the EPA to use fipronil without BASF's permission, which, Kliks says, are given all the time. "[Seed company] Pioneer Hybrid gets them like they're toilet paper," he says, but the hesitance to get the exemptions to control varroa lies in "the difference between a \$5 million industry and a \$5 billion dollar industry.... Basically, the state is refusing to use fipronil because BASF refuses to give them license to do so. What's the problem? If BASF will not give it to them, screw them. We have a food security issue in Hawai'i."

With fipronil off-limits and chlorpyrifos turning out to be a bee repellent, Wright says his team is looking at other poisons, including boric acid, that might keep the bees coming to the bait stations and will act slowly enough to ensure they will bring the poison back to their hives. While the baiting research continues, Reimer says the DOA will start deploying bait stations in

Kona, since it is the seat of the island's beekeeping industry, and will continue working to eliminate hives around O'ahu ports.

With regard to future funding, Kliks says the DOA should demand more. "Cutting the budget is not acceptable," he says. If more state funds don't come through, Kliks says, "We have federal funds lined up for this...in the 2008 farm bill, a lot of money for pollinator stuff." Also, a July press release from Sen. Daniel Inouye states that the Senate Appropriations Committee approved \$500,000 to "1) suppress the varroa mite on O'ahu; 2) trap honey bees at ports to prevent the spread of mite infested honey bees to neighboring islands; 3) monitor for early infestation of varroa mites on neighboring islands; 4) develop an eradication program should varroa mites be detected on the Neighbor Islands; and 5) establish a packaged bee program to replace infested and collapsed bee hives on O'ahu." — *Teresa Dawson*

EMI from page 1

When discussing with the commission the length of time it will take to implement the six new interim flow standards given current budget constraints, Thielen said, "Part of that is going to depend on the cooperation of the parties. Changing out the infrastructure in the current stream diversion is going to require the cooperation of EMI and that really is going to be the key in changing how that water is currently diverted to have the stream come first."

Since A&B and EMI have argued that the 27 petitions should have been looked at comprehensively, which would have allowed the companies to better evaluate the total impact of the amendments, "the more they help cooperate with the transition, the more time [Water Commission] staff has to move on in a timely manner," Thielen said, adding, "They have good business reasons to cooperate with us."

A Long History

Since the late 1800s, East Maui residents have opposed the leasing or licensing of their watersheds to allow wealthy companies to divert the bulk of stream water that not only feeds their crops, including taro, but also provides habitat for aquatic organisms that they rely on for food. Despite their protests, Hawai'i's government, going back to King David Kalakaua, has allowed uninterrupted diversion of the streams by A&B/EMI's extensive ditch system, which collects most of its water from state land.

In the 1970s and 1980s, A&B/EMI's state licenses for the East Maui watersheds of Huelo, Nahiku, Ke'anae, and Honomanu began to expire. As they did, the state issued the companies one-year month-to-month revocable permits, which it renewed every year over the objections of Hawaiians and conservation groups. That practice continued until May 2001, when the then-Native Hawaiian Legal Corporation attorney Carl Christensen and Maui attorney Isaac Hall requested a contested case hearing before the state Board of Land and Natural Resources on A&B/EMI's request for a long-term lease of the four areas. They also objected to any renewal of the revocable permits. NHLC's clients included a group of East Maui taro farmers known as Na Moku 'Aupuni O Ko'olau Hui, as well as Hawaiian cousins Beatrice Kekahuna and Marjorie Walleit. All of them live and farm in East Maui. Hall represented the nonprofit group Maui Tomorrow.

Around the same time, NHLC filed the

petitions with the Land Board's sister agency, the Commission on Water Resource Management, to amend the interim instream flow standards for 27 streams. (Instream flow standards refer to the minimum amount of water that must remain in streams to meet a variety of public trust purposes, including recreation, aesthetic values, and the needs of stream-related ecosystems. Interim standards were established as the status-quo flows existing at the time the law establishing the Hawai'i Water Plan was adopted, in 1987.)

In its petition to the Land Board, NHLC noted that the Hawaiian Homes Commission Act and the Hawai'i Admission Act identify native Hawaiians as beneficiaries of the public and ceded land trusts and therefore, they have a right to expect the Land Board to charge reasonable rent for use of public lands. A&B/EMI's payment of less than half a cent per thousand gallons was not reasonable, the NHLC argued. The petition alleged also that the diversion violates Na Moku's, Walleit's, and Kekahuna's traditional and customary native Hawaiian rights, as well as their riparian and/or appurtenant rights. Maui Tomorrow's petition made similar arguments and added that the state must consider the biological needs of streams as well.

After holding hearings on the petitions, the Land Board, believing that it was the Water Commission's job to deal with water rights and stream restoration issues, ended up siding with A&B/EMI and voted to issue a long-term lease to the companies. First Circuit Judge Eden Hifo overturned the decision in 2003, citing a 1982 water case (*Robinson v. Ariyoshi*) that allowed the transfer of water out of its watershed of origin "only when it can be demonstrated that to do so would not be injurious to others with rights to water."

Hifo ruled that the Land Board could not enter into a lease without a determination (either by the board itself or the Water Commission) of how the lease would affect traditional and customary rights. In either case, she wrote, the Land Board needed to prepare an environmental assessment or impact statement.

"If the BLNR believes it does not have the requisite expertise to investigate, then it should wait until the CWRM has acted or make its own application to establish instream flows reflecting the diversion it proposes to make, before authorizing the diversion," she wrote.

With regard to the revocable permits to A&B/EMI, Hifo left that matter to be resolved in the contested case. When the

parties failed to negotiate temporary water releases to provide immediate relief to East Maui parties while the Water Commission and/or Land Board attempted to resolve the water rights issues, contested case hearing officer E. John McConnell convened an interim hearing to determine an amount.

In March 2007, the Land Board decided, among other things, that 6 mgd should be immediately released into Waiokamilo Stream for Na Moku and that a Department of Land and Natural Resources water monitor should help determine how much additional water should be released for Kekahuna's and Walleit's lo'i. To address recent claims by NHLC that many provisions of the order have not been met, the Land Board is scheduled to hold a hearing on Maui some time this month. (See related article on page 8 of this issue.)

Meanwhile at CWRM

When Judge Hifo ordered the Land Board to either conduct its own investigation or wait for the Water Commission to determine new IIFSs before issuing a water lease to A&B/EMI, the commission was not prepared to take the lead. While the commission was receiving assistance in the form of U.S. Geological Survey studies of the geology and habitat availability of East Maui streams, study results were not released until 2005 and 2006.

So despite the fact that the Water Code requires the commission to act on petitions to amend IIFSs within 180 days, NHLC's petitions languished for seven years. But over the last few years, with the addition of more commission staff and the release of two USGS studies, the commission's ability to tackle the requested IIFS amendments spiked.

In December 2006, the commission approved a methodology to develop new IIFSs, and on March 12, commission staff unveiled draft Instream Flow Standard Assessment reports for the East Maui hydrologic units of Honopou, Pi'ina'au, Hanehoi, Waiokamilo, and Wailuanui, which include eight of the 27 streams cited in NHLC's petitions.

With the commission staff poised to issue IIFS recommendations for those streams, tensions between the opposing parties seemed to escalate. In May, the NHLC filed a waste complaint with the commission, claiming that HC&S admissions in 2005 during the Land Board contested case suggest that the company is over-watering their fields by an "extravagant" amount. Throughout July, members

of Na Moku allegedly opened EMI diversions of Wailuanui Stream nearly a dozen times. And in August, HC&S filed a motion (which NHLC's Murakami has said was merely a delay tactic) with the commission to take action on all 27 petitions and the waste complaint at the same time.

'A Historic Occasion'

So on September 24, as at least eight armed enforcement officers from the Department of Land and Natural Resources stood guard, the Water Commission met in Haiku to address two agenda items. The first was HC&S's motion to consolidate the petitions and waste complaint; the second was staff's recommendations on amendments

to the eight East Maui streams. The latter would be taken up only if the commission voted to deny the former. Commissioner Meredith Ching, who is also a vice president of A&B, recused herself from both items.

After hearing from representatives from HC&S, the Hawai'i Farm Bureau Federation, Maui Electric Company, the ILWU, American Machinery, the Central Maui Soil and Water Conservation District, rancher David Nobriga, and Na Moku, all of whom (except, of course, Na Moku's representative) testified in favor of HC&S's motion, the commission voted to deny it. While a couple of the commissioners were not enthusiastic about the decision (mem-

ber Donna Fay Kiyosaki voted "aye, with reservations"), chair Thielen summed up the commission's rationale best: "It's been 20 years and we need to move forward," referring to the fact that none of the state's IIFSs have been amended since they were established in 1988.

When the commission reconvened after a lunch break and a brief prayer by an East Maui resident calling on everyone to "be humble and be patient," Water Commission staff began its presentation, noting, "This is a historic occasion for all of us." Stream branch administrator Ed Sakoda stated that the proposed IIFS amounts are based largely on the USGS's hydrology and habitat availability studies. He added that all of the interim flows, if approved, would be subject to adaptive management, which would allow the commission to amend them based on new information.

After the staff's presentation, the commission heard public testimony that ran late into the night and continued early the next morning. The vast majority of the testifiers, many of whom lived in East Maui, urged the commission to return water to the streams, while representatives for HC&S and A&B repeated their desire for a more comprehensive approach.

Water Rights

While the staff seemed to have grounded its recommendations in the hydrology and habitat availability estimates developed by the USGS, NHLC's Murakami, the final testifier, argued that meeting the needs of those with kuleana or appurtenant rights needn't be so complicated.

"Basically, if you can show you're growing taro in approximately the same way that the Hawaiians did in ancient times, from the time of the Mahele, then you're entitled to that amount of water today. Whatever water you need today that is basically the same that they would use many years ago is the amount of water you're entitled to. It's not supposed to be a major analysis of how much water should go into the stream. You go...and ask the taro farmer," he said.

And commissioner Lawrence Miike, who is also an attorney, seemed to agree, at least in regard to who has rights to water.

In this case, "Hawaiians have first crack," he said, because of common law regarding kuleana and riparian rights. "What about people who divert water away from kuleana land or riparian rights? They don't really have rights, they have uses," which are allowed only as long as they are reasonable and don't impinge on kuleana and riparian users. After the commission voted to approve all

Stream-by-Stream Standards

Here are the interim instream flow standards approved by the Water Commission for six East Maui streams:

Honopou: A minimum flow of 2 cubic feet per second (1.29 mgd) at the 383 ft. elevation of lower Honopou stream is intended to ensure that an adequate amount of water reaches the more than 20 downstream users, although staff did not explain why that amount would be adequate. A second minimum flow of 0.72 cfs (0.47 mgd) at the 40-ft. elevation would keep the stream from drying out as a result of domestic and taro uses. The amount is the absolute low flow under undiverted conditions. Currently, as little as 0.51 cfs flows below the Haiku ditch, which is the lowest of the four ditches that cut across the stream. If the stream were not diverted, staff believes that 3.6 cfs of ground water would (2.3 mgd) be flowing out of the stream.

Hanehoi and Huelo: For Hanehoi and Huelo (Puolua) streams, the commission came up with a total of three flow standards. Because neither stream had any gauging data, staff used a model to estimate natural flow. Interim IIFSA (0.89 cfs) for Huelo Stream and IIFS B (0.63 cfs) for Hanehoi, would provide an estimated 80 to 90 percent of natural habitat in the streams' lower reaches for certain native species.

Interim IIFS C (1.15 cfs or 0.74 mgd) for the middle reach of Hanehoi, is an estimate of the lowest natural base flow and is intended to meet the needs of

biota, downstream users and the Huelo community.

Paluhulu: The commission recommended an interim IIFS in its lower reaches of 5.5 cfs (3.56 mgd), which represents 50 percent of the natural median base flow. The staff estimated this amount would provide 80 to 90 percent of the natural habitat for the five species studied by the USGS and enough water for downstream users. Currently, 4.8 cfs is available for stream organisms and downstream users.

Waiokamilo: Staff recommended an interim IIFS for the lower reach of Waiokamilo stream of 4.9 cfs (3.17 mgd), which is the estimated median total flow. Its report notes that EMI stopped diverting water from this stream in July 2007 and mentions the Land Board decision that year to release 6 mgd into the stream.

Wailuanui: For this stream, staff recommended a minimum flow of 3.05 cfs (1.97 mgd) at the 620-ft. elevation of the stream's lower reach, below the confluence of east and west Wailuanui streams. Like some of the other streams, this flow was chosen because it represents 50 percent of the natural base flow, which generously provides for habitat restoration. Staff notes that this amount will also make more water available to downstream users. Currently, only 1.0 cfs is available for biota and downstream uses. — T.D.

Land Board Resumes Discussion Of Diversion of East Maui Water

Depending on your point of view, the dispute over the diversion of streams in East Maui either took a nasty turn last July or a turn for the better. According to a report of a state employee, people associated with the nonprofit group Na Moku 'Aupuni O Ko'olau Hui allegedly brandished machetes, intimidated state Department of Land and Natural Resources employees, and took it upon themselves to open East Maui Irrigation Co.'s diversions, prompting a state Department of Land and

Natural Resources monitor to cut short his site inspection of a diversion on Wailuanui Stream.

But during a September 25 Commission on Water Resource Management hearing on East Maui streams, when resident taro farmer Kimo Day claimed responsibility for releasing the water, he was met with cheers and applause from many members of the public.

This month, the state Board of Land and Natural Resources is expected to hear

of its staff's IIFS recommendations, Murakami told *Environment Hawai'i* that while the habitat availability analysis seemed like a good idea to commission staff, "that does not account for whether that is enough for taro.... They're totally silent to the critical need to meet the 77 degrees threshold in the water before pythium rot [a taro corm disease] becomes a problem. They could have said flow must maintain 77 degrees in the lowest lo'i."

Regarding taro water requirements, Miike said during the hearing that the staff's recommendations were a starting point to see whether the amount released will be enough to satisfy kuleana growers. He added, "Alan's people will still have to come forward with evidence that says, 'we have these kuleana lands and we want this amount of water.' You still gotta do that."

While the commission prepares assess-

ments of water needs to address the remaining 19 NHLC petitions, Murakami says he is working to help the commission immediately install temperature probes near lo'i that will "give them enough information on water temperature that they could, through the adaptive management strategy, release more water."

Murakami adds that it appears that the Land Board has chosen to wait for the Water Commission to set new IIFS before proceeding with a lease and has basically stalled the contested case hearing. He says he's heard that the Land Board intends to make all of its decisions with respect to East Maui subject to the commission's restoration decisions.

"We have to kind of decide where we're going to put our energy. At this point, I think it will have to be the commission," he says. — *Teresa Dawson*

a report on the incidents as they relate to a new motion in the ongoing contested case hearing over a 2001 request of EMI and its parent company Alexander & Baldwin for a long-term lease of state lands in the East Maui watersheds of Honomanu, Keanae, Nahiku, and Huelo, which provide the bulk of the water that EMI diverts via its extensive ditch system.

'Window Dressing'

In March 2007, the Land Board issued an interim order intended to provide immediate relief to petitioners Na Moku 'Aupuni O Ko'olau Hui, Inc., Beatrice Kekahuna, and Marjorie Wallett, who for years have been seeking more water to grow taro and to exercise their constitutionally protected kuleana, riparian and traditional and customary rights. For Na Moku, that relief was to come in the form of a release by EMI of 6 million gallons of water a day into Waiokamilo Stream, which runs through Wailuanui valley. For Kekahuna and Wallett a DLNR monitor was to be appointed to help determine adequate flows for their taro fields. The monitor was also charged with helping to implement the board's decision, fill information gaps and resolve disputes.

The March order was the first time the state ordered any significant release of water from the diversions – which for more than a century have taken some 160 million gallons of water a day out of East Maui for agriculture and other uses in Central Maui – and it was viewed by the petitioners as a huge victory. But according to a motion filed on May 29 by their attorneys with Native Hawaiian Legal Corporation, the DLNR has failed to meet its obligations under the interim order.

The motion asks the Land Board to enforce its order immediately by requiring the DLNR to, within a few months, issue a progress report, install flow and temperature gauges, implement water releases to keep temperatures within their clients' lo'i below 77 degrees (to avoid pythium rot), and come up with an implementation budget, among other things.

In the motion, NHLC's Alan Murakami and Moses Haia argue that adequate water has not been released and that O'ahu-based monitor Morris Atta, who replaced Maui's Daniel Ornellas as the monitor in early 2007, has been neither available nor responsive to their clients and has failed to make promised visits to Maui.

"[T]he interim order is currently nothing more than window dressing.... [T]here has been no investigation or verification of



Environment Hawai'i has given extensive coverage to East Maui water issues over the years. For more background, see the following, all of which are available on our website, www.environment-hawaii.org:

"Battle Looms Over Waters Diverted from East Maui Streams," and "Complex Legal Issues Surround A&B's Taking of East Maui Water," August 1997.

"Board Talk: Contested Case on Renewal of EMI Water Permits," July 2001

"Board Talk: East Maui Water Dispute Heats Up With Hearing Officer's Recommendation," January 2003

"Board Talk: Land Board Favors EMI Water Diversion," March 2003

"East Maui Taro Farmers May Receive Interim Relief from Water Diversion," December 2005

"Ex-Judge Says East Maui Farmers Don't Need More Water for Taro," August 2006

"Land Board Orders EMI to Release Water to Meet Needs of East Maui Taro Farmers," May 2007

the critical facts in this case, leaving the BLNR in the dark about the truth of the circumstances and Petitioners without any effective interim relief," they wrote.

In their August 22 response to the motion, A&B and EMI's attorneys David Schulmeister and Elijah Yip argued that they, too, are frustrated because their application for a long-term lease has been "stalled by the Petitioners' tactics in this proceeding." Among other things, they allege that although EMI stopped diverting water from Waiokamilo Stream after the Land Board's interim order, flows have not increased below its Ko'olau Ditch during dry weather,

"The current interim order is nothing more than window dressing."

— Native Hawaiian Legal Corporation

which suggests that the diversion does not affect the stream's lower reaches in dry weather.

The Hawai'i Farm Bureau Federation, Maui County, and the nonprofit Maui Tomorrow, all of which are intervenors in the case, also filed responses to Na Moku's motion. Maui Tomorrow's attorney Isaac Hall noted that Na Moku's motion was also filed on behalf of his client and Maui Tomorrow supporters Neola Caveny and taro farmer Ernest Schupp, who are seeking to enforce their appurtenant and riparian rights to water from Puolua and Hanehoi streams.

Opening the Gates

Between the time NHLHC filed its motion and A&B's response, tensions among the parties came to a head. In its interim order, the Land Board found that Na Moku had made no claim for more water from Wailuanui Stream (a finding that NHLHC argues was erroneous). Even so, Na Moku and its representatives appealed to the DLNR's monitor to provide more water from that stream. While A&B/EMI has offered to repair an elbow joint and intake pipe in a pond along Wailuanui that were damaged by a landslide several years ago, NHLHC states in its filings that such repairs would not solve its clients' problems.

Frustrated with the monitor's apparent unwillingness to act with regard to Wailuanui, members of Na Moku took matters into their own hands. According to an October 1 report to the Land Board by Atta, during a July 9 site visit he conducted with Ornellas and DLNR aquatic biologist Skippy Hau to verify the existence and impact of a purportedly abandoned watercourse called Filipino Ditch, they were

unexpectedly joined by several Na Moku members "and invitees" who arrived equipped and outfitted to hike into dense forest.

While inspecting a diversion and speaking to Murakami about rights-of-entry and A&B/EMI right to occupy and use state land, Atta wrote, "several Na Moku members or their invitees began holding up their machetes and making confrontational statements such as 'Who going stop us if we open the diversion - You?' (while indicating the Water Monitor)." He added that he then noticed that more water seemed to be flowing through the stream after a group of

Na Moku members, their invitees, or both had opened the diversion. He also spotted a reporter/camera man, apparently from Maui's public access television station AKAKU.

Atta stated that he objected to the unauthorized acts and the media's presence and added that although Murakami said he disavowed any responsibility, Murakami nonetheless "did and said nothing to discourage either activity."

As water rushed into the stream, the Na Moku group "began to display increasingly hostile behavior" and called for all of the stream diversions to be forced open, Atta wrote. Worried about rising tensions and the "displays of aggression," Atta wrote that

"If any water is cut back, I will not have enough water to feed my lo'i."

— Kimo Day, Na Moku

he became concerned for the safety of the DLNR team and told Murakami that "due to the unauthorized acts by his clients, the site visit was terminated immediately and that anyone remaining on the premises would be doing so as a trespasser."

The Aftermath

In A&B/EMI's account of the events that followed, EMI personnel allegedly found on July 10 that sluice gates of three intakes had been opened and that boards in its tunnel for the Ko'olau Ditch had been lifted and propped up with rocks, causing water collected from streams further east to flow into Waiokamilo Stream. The "tampering," according to Schulmeister and Yip, prevented HC&S from irrigating any of its fields with water from the Hamakua Ditch on July 10. They added that in a July 4 meeting with Na

Moku member Kimo Day, Day "stated that he and others would do what they had to do to get water, whether EMI agreed or not." Between July 15 and 29, EMI personnel closed sluice gates that had been opened nine times. The last time, on July 29, A&B/EMI's attorneys state that EMI employees returning from the diversions were allegedly threatened by two Na Moku members who were on their way up.

Murakami told *Environment Hawai'i* that Atta's account, "in one respect, is totally false and kind of an insult to the people that were there...about the machete wielding stuff," and said that the AKAKU video of events provides a better picture of what happened.

In their September 12 response to the statements regarding the events of July, Murakami and Haia argued that the Land Board should first direct its staff to follow the interim order and allow the controversy over Wailuanui water to be dealt with by the monitor. However, they wrote, the events underscored the "extreme frustration and justified impatience amongst taro farmers facing the loss of two years worth of taro crops, only because no timely action from the stream monitor was forthcoming."

Haia and Murakami then offered, should the Land Board find it necessary, to allow Day and others to testify on the constitutional basis for the taro farmers' rights of access to diversions, maintenance of natural stream flow to support traditional and customary practices, and the

claims by EMI that repairs at the base of Waikini Falls would solve the problems faced by taro farmers.

At the September Water Commission hearing, Day told the crowd and the commissioners, "If any water is cut back, I will not have enough water to feed my lo'i."

How or whether the July events will be dealt with at the Land Board's hearing this month remains to be seen since, according to Atta's report, the disputes over Wailuanui stream are being negotiated by the parties involved.

In his report, Atta recounts all of the actions he and Ornellas have taken to implement the board's order, which include doing site visits, assisting in the release of water into Waiokamilo Stream and working with the U.S. Geological Survey to install flow and temperature gauges. — **T.D.**

Wailuku Companies Seek PUC Approval To Serve Existing, Future Water Users

In the coming months, the Public Utilities Commission will begin holding hearings on whether to grant the Wailuku Water Company's new subsidiary, Wailuku Water Distribution Company, a Certificate of Public Convenience and Necessity (CPCN). Such certificates are required of utilities that serve the public.

For decades, WWC and its predecessors have charged customers for the delivery of millions of gallons of water a day via the West Maui Irrigation System, which diverts water from 'Iao, Waiehu, Waihe'e, and Waikapu streams, collectively known as Na Wai 'Eha, or the Four Great Waters. Last year, at the same time the state Commission on Water Resource Management was dealing with a contested case hearing over the use of that water, the fact that WWC might be a public utility subject to PUC regulation was brought to the PUC's attention.

Under state law, anyone who sells or conveys water to the public, with a few exceptions, is subject to PUC regulation. And such utilities cannot sell assets, charge for services or even set rates without a CPCN and PUC approval.

While operators of some former sugar plantation irrigation systems have obtained CPCNs, others have not. The East Maui Irrigation Co., Inc., for example, has not been required to apply for a CPCN, even though it charges for the delivery of water to four other entities, including Maui County. For various reasons, including the fact that two of EMI's four "water clients" are owned by EMI's parent company Alexander & Baldwin, PUC staff informally determined last year that EMI is not a public utility.

However, the PUC found that WWC, which has evolved from a sugar plantation to a diversified agribusiness to a water distribution company over the past century or so, was a public utility and ordered it to apply for a CPCN by December 2007.

In February, WWC and WWDC applied for the certificate. In their application, the companies proposed charging users \$0.90 per 1,000 gallons of water, except for a handful of users who will receive "grandfathered" contracts (including WWC owner Avery Chumbley).

Under PUC rules, hearings for simple cases that don't have any intervenors must be resolved within six months, says Lani Shinsato, the PUC's attorney overseeing the Wailuku case. But the Wailuku case is anything but simple.

WWC, along with Hawaiian Commercial & Sugar, the Office of Hawaiian Affairs, the nonprofit groups Hui O Na Wai 'Eha and Maui Tomorrow, and the County of Maui, are entering the final stages of a contested case hearing before the Water Commission on interim stream flow amendments to Na Wai 'Eha. At the heart of the case is WWC's legal authority to continue diverting the majority of stream flows for its own private use in the face of intervenors' claims that this comes at the expense of central Maui residents with superior rights to that water and to the detriment of native flora and fauna dependent on healthy stream flow.

So it was no surprise that HC&S, Maui County, Hui O Na Wai 'Eha, Maui Tomorrow, and the Office of Hawaiian Affairs – in addition to a couple of WWC's current customers – filed motions to intervene in the PUC proceedings.

At a PUC hearing last May, several of the parties explained the need for their involvement.

In written testimony, OHA administrator Clyde Namu'o stated, "The pending decision by CWRM will determine whether Wailuku is 'able,' within the applicable constitutional and statutory framework, to provide Na Wai 'Eha water to customers." Namu'o speculated that WWC and WWDC viewed the CPCN proceedings as "an opportunity to 'scrape off' its historical 'kuleana obligations' by charging kuleana users in Na Wai 'Eha for water to which they have well-recognized, and superior, rights."

Namu'o complained, "[K]uleana users are not voluntary 'customers' of Wailuku. It is only because Wailuku has dewatered the streams that the kuleana users are required to obtain (and Wailuku is required to provide) water from Wailuku's ditch system."

Namu'o added that the Water Commission's decision earlier this year to designate Na Wai 'Eha as a surface water management area will also affect WWC's and WWDC's ability to provide their services since any withdrawal, diversion, or consumptive use of water within the area must have a Water Use Permit, "the applicant for which will have the burden to show that its use is 'reasonable-beneficial'."

Maui Department of Water Supply's Jeffrey Eng and representatives of Hui O Na Wai 'Eha also testified to the impact the Water Commission's decisions will have on WWDC's

ability to deliver water. In addition, Eng told the commission that the formation of WWDC by WWC "and the reasonableness of their transactions require close scrutiny, because the deal involves the transfer of unspecified assets, the assignment of certain agreements and contracts, and a lease agreement between affiliated partners that has potentially significant rate impacts to customers."

Because WWDC plans to lease WWC's lands once a PUC certificate is approved, Eng said that WWDC appeared to have been established for the purpose of "artificially creating a stepped-up basis for otherwise wholly depreciated assets... This kind of self-dealing should be viewed with suspicion."

Attorneys for Earthjustice, which represents Hui O Na Wai 'Eha and Maui Tomorrow, also expressed their concern about the "contrived 'lease' of watershed lands from WWC to its newly created alter ego, WWDC," as well as failure to mention the numerous kuleana water users that receive water from the ditch. They also argued that the CPCN application suffered from serious deficiencies, "including lack of proof of any actual uses of the applicants' claimed customers, much less whether the uses are justified in light of the public interest in instream flows."

In its motion to intervene, HC&S did not mention the Water Commission contested case. It argued instead that HC&S jointly owns and controls portions of the irrigation system that WWC uses to distribute water to its customers.

"In the late 1800s, HC&S and Wailuku Sugar Company were actively competing for cane lands and water rights.... After many years of controversy, the two companies settled their differences through an exchange of lands and other property rights and an agreement on the sharing of water," wrote HC&S's attorneys Kent Morihara and Yvonne Izu. "Maintenance and operating costs for the system are shared between WWC and HC&S commensurate with the interests held by each of the parties in the system."

WWC and WWDC filed motions opposing all requests to intervene. The companies argued that the state consumer advocate, who is supposed to represent the public's interest in all PUC cases, would adequately represent the interests of the would-be intervenors.

Regarding HC&S's motion, Wailuku's attorneys Craig Nakanishi and Shah Bento stated that their clients were puzzled that the motion appeared to be concerned with an agreement signed in 1924 that they said had no bearing on the proceeding. They argued that HC&S was seeking to use the PUC proceedings as a way to lay claim to portions of the Wailuku water system that HC&S

Two Years after Quake, NELHA Still Struggles to Repair Damaged Pipelines

Is the fifth time the charm? That is the question that the board of directors of the Natural Energy Laboratory of Hawai'i Authority should be asking of NELHA administrator Ron Baird when it comes to efforts to repair seawater pipelines more than two years after they were apparently damaged in the October 15, 2006, earthquakes off the Kona coast of the Big Island.

A related question might be how much of the delay resulted from Baird's apparent efforts to see the repair contract directed to a California company that didn't even have a Hawai'i license until after it got the nod for the work the first time around.

It took nearly a full year – until October 10, 2007 – for Baird to put out the first request for proposals, soliciting bids from companies interested in repairing the 18-inch and 40-inch deep seawater pipelines that serve aquaculture businesses and seawater bottling companies on the 870 acres of state land managed by NELHA. Within five weeks of RFP being published, however, it had to be cancelled by NELHA's parent agency, the Department of Business, Economic Development, and Tourism, ow-

doesn't own. The company's allegation of joint ownership, they wrote, is an attempt "to insinuate itself into the management of the utility's system to backstop HC&S operations in the event that the CWRM allocates less water than it needs, or it believes it is not getting what it wants notwithstanding the 1924 agreement."

By late October, the PUC was to have issued an order determining which parties, if any, will be allowed to participate in the case.

How or whether the Water Commission's contested case will figure into the PUC hearings is unclear. Water Commissioner Lawrence Miiike, who is serving as the hearing officer, concluded the bulk of the evidentiary hearings in March and held a last-minute hearing last month. According to Earthjustice attorney Isaac Moriwake, all parties now have until December 5 to submit their proposed findings of fact and conclusions of law to Miiike, who will, in turn, prepare his own recommendations to the Water Commission on amendments to the interim instream flow standards. While Miiike has not yet received those filings, Moriwake says that Miiike has already begun working on his recommendations. — *T.D.*

ing to an error in the general conditions attached to it.

December 21, 2007, a second RFP was issued, calling for much the same work as the first. In April 2008, a California company called Harbor Offshore was awarded the contract, with a bid of \$245,732. Sea Engineering, a Hawai'i based company whose proposal was second-ranked, challenged the bid results. DBEDT denied the challenge. Sea Engineering then appealed to the state Office of Administrative Hearings, housed within the Department of Commerce and Consumer Affairs. Although the company's specific complaints were not upheld by the hearing officer, other problems were identified in the bidding process, including the fact that at the time of the bid opening, Harbor Offshore did not have the required Hawai'i contractor license. As a result, in the hearing officer's report, dated June 27, Baird was instructed to re-evaluate the bids "to determine whether the offerors were properly licensed at the time they submitted their proposals."

But Baird did not do this. Instead, on July 24, he instructed DBEDT to cancel the RFP. Baird explained that he had found another defect in the bidding process that disqualified all bidders: under one of the conditions, they were supposed to have given DBEDT formal notice of their intention to bid within 10 days of the bid opening, he said. But, he added, "no one submitted a written notice of intention to bid. Accordingly, all bidders are disqualified."

Instead of going through a third RFP process, Baird appears to have decided that time was of the essence and in September sought to

have the State Procurement Office exempt him from the need to comply with competitive bidding procedures. Baird sought approval to grant a no-bid contract – now worth \$295,200, nearly \$50,000 more than the original bid amount – to Harbor Offshore.

Chief Procurement Officer Aaron Fujioka wasn't buying it: on September 16, he disapproved the exemption request. In explaining his decision, Fujioka recapped the problems associated with the second RFP, then said, "NELHA should have immediately re-issued the RFP. A procurement exemption would not be fair as it would eliminate open competition for all potential offerors."

Three days later, on September 18, Baird made his fourth attempt to get approval for the pipeline repair work. This time, it took the form of an "emergency procurement request." Again, Baird identified Harbor Offshore as the preferred contractor, noting that it "was the highest ranking offeror" under the earlier request for proposals and that it "is able to make an expedient repair."

At the same time, according to an email exchange between the NELHA contracts officer and workers in DBEDT's procurement office, Baird wanted to see work continued on a third RFP, in the event that the emergency request were to be denied. It was just as well: for whatever reason, the State Procurement Office has no record of receiving the emergency request, according to a worker there.

With his efforts to expedite the award of a contract to Harbor Offshore having failed, Baird decided to move forward with the third RFP, notice of which was posted on DBEDT's website October 6. The deadline for submitting proposals was set for November 5.

A Long and Winding Road

Whatever the problems with the RFP process have been, Baird has not discussed them in any

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detail at the meetings of the NELHA board in the two years since the earthquake. On October 24, just nine days after the earthquake, Baird informed the NELHA board that, "other than a few tiles in Building D, ceiling tiles coming loose, the only sustained damage that we believe that we have may be down at the Keahole Point pump station."

In fact, NELHA's own daily logs showed a potential problem with the 18-inch deep seawater pipeline within a week of the earthquake. Before the quake, flows had averaged about 1600 gallons per minute, but by October 21, the average was closer to 1000 gpm. Initially, NELHA staff attributed the problem to a faulty flow meter and installed a new meter, but the diminished flows remained.

In December and January, however, a series of dives revealed a crack in the 18-inch pipeline near an elbow joint close to shore, where the pipeline enters the larger shoreline conduit. Following heavy winter swells, the crack opened wider, eventually resulting in a complete rupture. Jack's Diving Locker was hired on an emergency basis to salvage a 40-foot length of the damaged pipe and bring it to shore for refurbishment. The 18-inch line has been out of commission ever since.

Then, in late January, one of the aquaculture tenants noticed that water temperatures were increasing. A dive in early February found a large crack in the 40-inch deep seawater pipeline, which had to be quickly patched.

Over the next year and a half, as the bidding process dragged on, the 18- and 40-inch pipelines continued to be buffeted. Late last August, the temporary patch on the 40-inch pipeline gave way, and once more, Jack's Diving Locker was hired to make the repairs needed to bring it back in service.

The rupture in the 40-inch line seems to be what prompted Baird to ask for an exemption from procurement processes in early September. "Currently only the 40" [pipeline] is in working condition," Baird told the State Procurement Office. "However, the



PHOTOS: COURTESY NELHA

Left: A large crack in the 40-inch deep seawater pipeline at NELHA is photographed in an inspection in February. Right: The powerful draft from the crack in the 40-inch pipeline sucks marine life into the pipeline. Shown here are the remains of a triggerfish caught in the crack

recent failure of the temporary patch and the enlarged crack in the pipeline elbow is of grave concern... Because of the worsening situation of the 40" pipeline, it is no longer practicable or advantageous to re-issue a RFP."

Apparently, Baird thought approval was a foregone conclusion. Even as he was awaiting a decision from Fujioka on the request, NELHA staff were in close contact with Jeff Terai, owner of Harbor Offshore (as well as a luxury house near the Mauna Kea Beach resort). The hold-down chains on the 40-inch pipe were in precarious condition near the break, NELHA's Jan War wrote Terai in a September 11 email. "If we go with your idea" on how to make the repairs, War said, "then the chains should not be in play... I would be interested from your standpoint as to how this approach might change the cost of your proposal."

Patrick Ross of Sea Engineering, who protested the award of the job to Harbor Offshore, was not happy when he learned of the exemption request. "Morally it's not right. The whole thing just doesn't make any sense," he told *Environment Hawai'i*.

A spokesperson for Sea Engineering said the company would certainly be bidding on the job now that the new RFP was out. "You betcha!" she said.

Ongoing Problems

The earthquake repairs are only the first step in overhauling the 18-inch and 40-inch deep seawater pipelines at NELHA. Dives made by a submersible in 2008 disclosed serious prob-

lems with the anchors on both lines. In the estimation of Makai Ocean Engineering, which made the survey, the 18-inch line might have another five years of useful life, while the 40-inch pipe might last another decade. "On the other hand, with no repairs in place, the pipe could also catastrophically fail anytime after" an especially weak tether line fails. Both lines were installed in 1987.

The large 55-inch deep seawater pipeline, installed in 2001, was found to be in "excellent condition," Makai Ocean Engineering wrote in its report. "The original design life ... was 20 years. There is no reason to believe it will not easily surpass this 20 year life and reach 30 or more years of operational life." The 55-inch, which delivers water to the more mauka tenants at NELHA (including the water bottlers), could serve as a back-up supply for the makai aquaculture operations in the event the 40-inch line fails.

Baird mentioned the problems to the NELHA board in a meeting last spring. "The 40-inch pipeline anchors are loose," he said, adding that "the best estimate we have is that this is going to cost a few million dollars."

The 2008 Legislature included money for the repairs in NELHA's capital improvement project budget. Baird has said that the earthquake damage must be fixed before any contracts can be awarded for the deeper work on the pipeline anchors.

Environment Hawai'i attempted to reach Baird for comment, but he was out of town and unavailable by press time.

— Patricia Tummons