



NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY

*An Authority of the State of Hawaii attached to the Department of Business, Economic
Development & Tourism*



BOARD OF DIRECTORS

MEETING MINUTES

May 2, 2023

10:00 a.m.

An Interactive Conference Technology Meeting was held at

NELHA OceanView Conference Room

Hale Iako Building

73-970 Makako Bay Drive

Kailua-Kona, HI 96740

DBEDT Conference Room

and via Zoom Video Conferencing Software.

Members/Designees in Attendance

Cyd Miyashiro (Gov. Appointee/Chair)
Gordon Bruce (Gov. Appointee)
Noelani Kalipi (Gov. Appointee)
Scott Glenn (DBEDT)
Bobby Command (County of Hawaii)
Bernice Glenn (HTDC)
Alan Hilton (RAC Chair)
Neil Sims (Tenant Representative)
Dr. Vassilis Syrmos (University of Hawaii)
Russell Tsuji (DLNR)

Guests/Staff Present

Greg Barbour (NELHA)
Laurence Sombardier (NELHA)
Keith Olson (NELHA)
Rae Nguyen (NELHA)
Faustine Edge (NELHA)
Jeff Zimpfer, (National Park Service)
John Cole (AG)
Brittany Taylor (Taylor Shellfish Farms)
Melissa Dellatore (Pacific Hybreed)
Gerald Heslinga (Indo Pacific Farms)

Board Members Not Attending and Excused

Dick Jones (Tenant Representative)
Phil Bossert (RAC Secretary)

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- **Item 1. Call to Order.**

The meeting was called to order by Chair Cyd Miyashiro at 10:03 a.m. Chair Miyashiro welcomed new Board Director Gordon Bruce and asked him to introduce himself. Director Bruce began that he lives on the Island of Hawaii in Waimea and is happy and honored to be on the NELHA Board. His background is in the IT industry for over 50 years with previous roles at Bank of Hawaii, Queens Medical Center, and Estate of James Campbell. He was Director of IT for the City and County of Honolulu with the Mayor Hanneman and Carlisle Administrations. Currently, he has his own IT firm specializing in cybersecurity for department of defense contractors and electronic security surveillance systems for Federal and State local prisons across the nation.

Chair Miyashiro asked Executive Director (ED) Barbour for a roll call of Board members and NELHA staff. Reference to Act 220. 10 members present and 2 excused.

- **Item 2. Approval January 17, 2023, NELHA Board of Directors' Meeting Minutes.**

Chair Miyashiro entertained a motion to approve the January 17, 2023, minutes. The motion was made by Director Scott Glenn and seconded by Director Kalipi. There were no objections, and the minutes were approved as circulated (10-0).

- **Item 4. Informational Presentation from HOST Park Clients.**

Chair Miyashiro explained that Agenda Item 4 is moved up and asked Deputy Director (DD) Laurence Sombardier to introduce Taylor Shellfish Farms. DD Sombardier introduced Ms. Brittany Taylor, Director, Hatchery and Nursery Production at Taylor Shellfish Farms (Taylor). Taylor operates a hatchery nursery for shellfish on 6 acres here at HOST Park. They have been with us off and on since 1994, and they entered into a sublease in 2009. They operate numerous offshore intertidal grow-out beds in Washington State in the Puget Sound area and have several oyster bars and retail outlets in the Seattle area. They are the country's largest producer of aquaculture (farmed) shellfish with annual revenues of approximately \$100M. The family-owned operation and latest generation with Brittany Taylor will be making changes to improve and optimize the current facility.

Ms. Taylor thanked everyone for the opportunity to speak with the Board, she is new to this site and hasn't met everyone yet. Ms. Taylor began that she would like to tell everyone more about their facilities at HOST Park. Those most know there is a hatchery at HOST Park they do not know that 99% of Taylor clams and 3 different species of oysters (Pacific, Kumamoto and Virginia eastern oyster) start at the Kona facilities. So, it is a huge factor in their business, without it, it would be a significant detriment to their operations. They are expanding and they need hatcheries and nurseries. They currently have five nurseries and one hatchery in Washington State and one nursery in California in addition to the Kona hatchery. Her job is to coordinate all the nurseries and hatcheries from the bigger picture

of how many animals they need and where they need them.

Kona is very valuable as it is upland, has a lot more sun and algae which makes this location good for food production. They are looking for ways to make it more food reliable. Recently one of the 100 ft tanks collapsed, become a project now cleaning the debris from that mishap working with NELHA and staff in their parking lot. They plan to replace the 100-ft tank with four 50-ft tanks which is more manageable. Because a 100 ft diameter tank is a lot of resources of food, having four 50-foot tanks would be the same volume of food, but now they can do ¼ of food at a time. They have one more aging 100-ft tank they inherited from the previous tenant who was raising salmon. They are looking into how to replace that as it is metal too.

Ms. Taylor asked if there were any questions. DD Sombardier asked Ms. Taylor about their plans to make improvements with solar. Ms. Taylor answered that energy cost has been a big factor, and they are working with the team to see if they can put in solar energy. Another area is to see if they can be more efficient is water usage. They are working with teams to audit electrical and plumbing to make it more efficient. Also, as their seed capacity grows, they are working on the algae bags for higher density in a smaller area square footage. For example, instead of the big boxes they currently use, can they use a bottle system which is more vertical.

Director Sims asked why Taylor doesn't do more oyster production, understanding they do mostly clams. Ms. Taylor answered they do a lot of oysters at Kona production, but the seed is only here for a short time. The clams spend their whole lives here and after are sent to their farms for grow-out and that is where the nurseries come into play. The clams have better survival rate here. The oyster spat is brought in and only grow to 10 micron size before they are sent to their California site to grow to 6 millimeters, and after sent to their Washington facilities. Clams do well here because they have more food and, she believes, because of the salinity here in Kona.

Director Sims has heard there are challenges of increasing acidification of surface water in the Pacific Northwest, and is that still directly impacting you, or is it a worry in the future. Ms. Taylor answered where that is an issue is at the early stages and in the hatcheries and they can buffer that. Where they have seen more of the role is with toxic algae and natural blooms which that have affected their company more than mature stuff. They have seen major die-offs in some of their areas due to eating the algae that are toxic. She believes that how weather has changed which affects more than pH levels.

Director Sims then asked how consistent their production is because a number of the other companies here have found some inexplicable variability in their larval rearing. Ms. Taylor responded they do, but that's why they have weekly meetings with all of their facilities, and they quickly switch to different areas when they are not having issues. Most of their oyster larvae start in Washington so only one hatchery was doing all the spawns. All the larvae

from the spawns come to Kona as “swimmers”. She doesn’t know if that’s where it changes, but they are working more closely with their hatchery in Kona now. They have always used other facilities when issues were happening.

Mr. Heslinga asked Ms. Taylor, with the clams there is great production with 99% starts in Kona. Do they export larvae of the clams or just seed? Ms. Taylor answered yes, just seed. Their California site is all raw, water based needs 450 microns to keep their production going. They send that size from Kona to California where they grow up to 4 millimeters then sent to Washington. Mr. Heslinga asked if she found the production consistent with the clams. Ms. Taylor answered it was until this last year they had some issues. Ms. Taylor says they had first year issues with the smaller clams so they switched with Kona doing oyster larvae and another site doing clam larvae. This is the first year they have seen issues with their clam seed. Their clam production is low now, which is good with the 100-ft tank being out.

Mr. Heslinga asked if she was happy with the algae production. Ms. Taylor responded from what she has seen, she thinks they are fine. She doesn’t think her Kona team has had the scientific background, and is hoping their Washington team can help with that.

ED Barbour asked about current employees and what it would be like in 5 years. Ms. Taylor answered they currently have 11 employees plus a manager. They hope to have a couple more staff on board. With the expansion within the next five years, she will advocate to have 20-25 employees. Because Taylor has competing divisions (the restaurants and the farms), their COO reviews and approves each division’s budget. She added normally her budget would be approved because there is no Taylor Shellfish without baby clams and oysters. There are not a lot of other companies doing clam seed, plus, with the food here at NELHA is so good, and sun year around, they don’t have that anywhere else.

Director Sims asked if Taylor Shellfish has sufficient real estate with expansion plans. Ms. Taylor envisions it is the existing space and answered that if they invest in vertical seed storage they will have plenty of space.

Director Hilton asked about the 100-foot tank collapse which sounded dramatic. Ms. Taylor explained the metal rusted through in one spot, that the water pressure outweighed the metal causing the huge hole. The property is lower and where the hole was it drained into their drainage holes.

DD Sombardier further explained Taylor’s location in the park has a lot of aging infrastructure. In the past when they spoke about the Farm compound and the electrical issues it’s in that area.

Chair Miyashiro thanked Ms. Taylor for her presentation. and she commented the information given directly from the tenants is very useful to the board.

- **Item 3. Report from Special Investigative Committee regarding the annual performance evaluation of the NELHA Executive Director for the period July 1, 2021 through June 30, 2022**

Director Sims made a motion to go into Executive Session to discuss personnel issues. Seconded by Director Tsuji. Chair Miyashiro asked for any objections. There were none and 10-0 vote to go into Executive Session. The Board exited Executive Session at 10:24 am. Director Sims called back the board attendees to return at 10:32 a.m.

- **Item 5. Old Business.**

None.

- **Item 6. New Business.**

None.

- **Item 7. Financial Report: Approval and Decision Making.**

Chair Miyashiro asked ED Barbour to present this agenda item. ED Barbour presented an overview for July 2022 through March 31, 2023.

Revenue

- Total revenue was \$4.0M for the first nine months of this fiscal year and this represents an increase of \$550,000 or 16 percent for the same period last year. As shown on the chart above, it is above the past five years except for FY21 when we received the insurance reimbursement for the Kilauea destruction. Much of the increase \$400,000 or 80 percent is due to increasing cost of electricity. Increased rental income and special projects revenue each also exhibited an increase of \$100,000. On the downside, these increases were offset by a decrease of \$200,000 in percent rent which is due to the large amount of arrears collected last year. Of notice for FY23 are the following:
 - Overall seawater system revenue is up by \$300,000 or almost 30 percent. Demand is up slightly (10 percent), but the main increase is due to the surcharge of \$220,000 (400 percent) as electricity rates significantly higher than the same period last year.
 - Overall lease rent is up by \$125,000 for the first six months of the year. HOST Park lease base rent (property outside the Makai Research Campus is essentially flat; Makai Research Campus office space is up 25 percent (\$55,000) and outside space in the Makai Research Campus increase by 40 percent or \$55,000.
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- Percent rent decreased significantly by \$200,000 due to payment of arrears for the same period last year.
- Reimbursements for electric are up by \$180,000 or 65 percent and due to higher electrical costs. Freshwater reimbursements are also up \$65,000 (170 percent) due to higher costs.
- Special Projects increased by \$80,000 with new grant revenue from the Economic Development Administration.

ED Barbour asked if there were any questions on revenue. Hearing none he continued with expenditures.

Expenditures

- Total expenses for the first nine months of this year were approximately \$3.8M or up by \$200,000 or 5 percent. Overall expenditures were up mainly due to increase seawater system electrical and tenant electrical reimbursables (\$500,000). We continue to monitor expenditures very closely. Of note are the following:
 - Seawater system expenditures were up by 50 percent (\$500,000) due to shifting of personnel to focus on upgrades; purchase of R&M supplies; and, increased electrical costs.
 - Tenant utilities are up by 60 percent or \$200,000 due to increased HELCO rates.
 - NELHA utilities are down by \$100,000 due to back payments to PPA provider began in FY22 as well as miscellaneous unresolved issues with meter readings.
 - HOST Park security is up by \$50,000 (20%) mainly due to new annual security contract being executed in the third quarter.
 - Beach Park maintenance is down by \$15,000 (40%) for the first nine months mainly due shifting of personnel tasks to the seawater system, lower freshwater costs by turning off the irrigation at the beach park and installing portable toilets while closing the restrooms for renovation.
 - Administrative costs are down by \$125,000 (10%) due to shifting of personnel.
 - OHA ceded lands payment is up by \$30,000 (15%) for the first nine months of the year due to increased rental proceeds.
 - Special projects expenditures are down by \$315,000 due to the one-time water well contract payment last year and the final payment to Hawaii Natural Energy Institute for the energy analysis, also last year.

ED Barbour asked if there were any questions. Hearing none, he continued to Special Funds and Arrears.

Special Fund and Arrears

- Special fund balance is \$830,000 and up slightly by \$170,000 over the first nine months.
- Current arrears are \$28,000 and if arrears are collected this will bring the special fund balance close to \$860,000.
- As of March 31, 2023, the arrears totaled approximately \$28,000 and down from \$80,000 earlier this year. However, Kona Deep, which makes up most of the arrears is now current and arrears as of last week are below \$5,000.

ED Barbour closed his Financial Report. Chair Miyashiro opened for discussion and asked if there were any questions or comments. Director Scott Glenn commented on the electrical billing. ED Barbour answered that thought the charges go up dramatically but then decreases. We don't know why but we know we are using the same amount of power, and we are in the process of looking into it further. Chair Miyashiro asked if there were any comments, questions from the public. There were none. Director Tsuji motioned to approve the financial report covering July 2022 to March 31. Director Kalipi seconded the motion. Motion carried as presented (10-0).

- **Item 8. Executive Director's Informational Status Report on ongoing projects including: new leases; seawater system maintenance; offshore deep seawater pipe removal planning and design; regional seawater air conditioning planning and design; new potable water supply update; aquaculture accelerator and investment fund initiative; design of expansion of research campus and visitor center; renewable distributed energy resources initiative for microgrid; and, solar desalination.***

Chair Miyashiro asked ED Barbour to present this agenda item.

ED Barbour was happy to report that the Seawater System continues to perform flawlessly. We have started to do quarterly shut-downs of the seawater system for two hours to perform system-wide maintenance. We have had our second one and it's gone smoothly. This is good news and will really help us keep the system up to date.

We are tracking an issue just for the Board's some of the businesses here, mainly at the north end of the park, are having issues with larval growth in the very early stages, the less than 1-week old stage. They've established a working community group to try and understand it better. We're not sure if it is something in the ocean water, surface water, could be something growing in our pipes. As you know, aquaculture is a very difficult business, there are a lot of variables. ED Barbour asked Director Sims if he would like to add anything. Director Sims agreed that ED Barbour covered most of it. He added the leading hypothesis is it could be encrusting organisms on the inside of the pipes and the way they

will try to address is by recirculating systems or carbon filtration which has provided some help. But in some places where they do have aquaculture facilities running for some time, there is a regular replacement of the seawater pipes because it makes them feel better. The Taylor hatchery in Washington State does that. That can't be done here at NELHA because we have these pipes that can't be regularly replaced with 4"-6" PVC pipes. If they cannot find the problem, one solution would be to use the existing pipes, some of which are redundant, as conduits to lay their PVC pipes in there. This would be the workable solution if this does prove to be where the problem lies. ED Barbour continued it's been about 6-9 months that we've started to investigate this issue. Blue Ocean Mariculture was the first to notice it at their hatchery, followed by Jamestown Whitney who did some further testing. It's going to take a while, but he thinks everyone is working together to resolve the problem. Director Sims added this is not a new issue. When they were doing a pearl oyster hatchery 25 years ago, they ran new PVC in the old, abandoned pipes. He believes it's recurring, sporadic, and no clear understanding of the causes, but there are solutions.

Director Kalipi left at 10:44 a.m.

Survey of the offshore deep-water pipes is completed, and we've issued a Notice to Proceed to Makai Ocean Engineering (MOE). With the survey data, MOE will do a preliminary design on how to deal with those abandoned pipelines from 20-25 years ago. They recommend that we may salvage them, or fill them with some substance, but we need to await the results from MOE. ED Director believes it will be a costly, complicated process.

Seawater Rate Analysis. We decided to push this back to the beginning of next fiscal year as the costs were very fluid with electricity last year and the new system at the PV system at the 55" pump station with a large battery will be coming online shortly. If we understand these costs it makes more sense to do the rate analysis at that time.

The Sunshot Desalination Project has been completed. ED Barbour believes the main contractor, Trevi Systems, is continuing looking for additional funding. Trevi Systems wants to scale up to the next level.

Region Seawater Air Conditioning Design Study should be done later this month, and we will present it to the board.

PV Storage Test Bed is the project at the 55" pump station. The 500 kW of solar panels are installed. They are operational and have been tested with the 750 kWh battery is installed and tested twice now but only for a couple of hours.

Aquaculture accelerator project, HATCH has their fifth cohort beginning in June and it's another couple weeks for applications close. We are happy to report and thanks to

DD Sombardier we received an additional \$800,000 from EDA Grant applications that is for the construction side of the HATCH Aquaculture Accelerator Grant. We will be adding some outside “pods” for people to meet in and perhaps meeting furniture for Hale Iako. Also, there are funds for purchasing mobile labs to collect samples around the island.

The Makai Research Campus Expansion is just wrapping up. The architect has submitted plans at the 90% level and our evaluation will be complete in the next several months. Renovation plans and improvements for the Mauka Research Campus are being formulated and we continue to talk with numerous lease prospects. Currently we are just leasing the paved area for truck storage on a short-term basis.

Potable Water Supply. There is no funding for this project and this project is on hold. We did not receive any funding from the 2023 Legislative session.

Offshore Freshwater Survey and been delayed, and we’re looking to the Fall to start.

The EIS has been delayed as well. Hopefully, we’ll start developing the Scope of Work for that project shortly. We received advice from Office of Planning to combine the EIS update with the Master Plan update and accomplish both at the same time. Director Scott Glenn indicated that might be a more appropriate method to do it and we’ll try to get that done with the \$1.5 million we have.

We did complete the Landlord-Tenant Customer Satisfaction Survey this year. Two years ago we had a little over 40 responses. This year received only 20 responses.

The 2023 Legislature ends in two days. There were no bills that impact NELHA either positive or negative. We received \$3.5 million in CIP projects from the legislature: 1) \$1.5 for the environment impact statement for the offshore research corridor, 2) \$2 million for seawater systems repair and maintenance. We didn’t receive any funding for roads.

Chair Miyashiro thanked ED Barbour his briefing and ask if there were any questions from the board. Director Sims thanked ED Barbour for his efforts to get the offshore research corridor EIS over the line. He knows it’s been a long road and he appreciated the perseverance. He believes this will be a game changer for NELHA and will allow us to do the R&D work that we’ve been doing but extending it out to the water.

Director Vassilis Syrmos left at 10:58 a.m.

- **Item 8. Announcements.**

Chair Miyashiro noted that our next meeting is scheduled for Tuesday, May 16, 2023, at 10:00am.

Chair Miyashiro also noted that the board of directors are required to file their disclosures with the Ethics Commission by the end of this month, May 31st.

Lastly, Chair Miyashiro acknowledged this is Director Scott Glenn's last meeting. On behalf of the Board, Chair Miyashiro thanked him for his service, he will be missed and wished him luck on his next endeavor.

- **Item 9. Adjournment.**

Chair Miyashiro adjourned the meeting at 11:00 a.m.

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