

THE PIPELINE

AQUACULTURE ACCELERATOR AT NELHA RECEIVES FUNDING TO CONTINUE FOR ANOTHER 4 YEARS

The US Department of Commerce Economic Development Agency (EDA) has committed to support the HATCH aquaculture accelerator at NELHA for another 4 years. 80% of the \$3.1 million project is funded by EDA with the rest matched by HATCH and NELHA. The goal is to develop a long term self sustaining program by 2025.

The project builds on the success of the current three year pilot aquaculture accelerator program which is running through fall of 2021. HATCH will expand on its annual global accelerator cohorts and also plans to add ideation workshops to assist local entrepreneurs in getting ready to join these cohorts. It is expected that 75 companies will benefit from the accelerator program over 4 years with about 20% developing a home base in Hawaii.

Given the nature of many aquaculture endeavors and the need for longer incubation cycles especially when live species are involved, we realized an associated incubator program that could provide a longer residence time beyond the 3 month cohort program would be a helpful addition. It is expected that approximately 25 companies will benefit from the incubator portion of the project.

There is also a plan to improve infrastructure through this project. Improvements will include additional laboratory instrumentation, outside tankage, conferencing and meeting equipment for more effective collaborations across the world, and a mobile lab fleet to facilitate research in the park and in Hawaii island.



The incubator heart of NELHA's Research Campus - June 2021. The HATCH aquaculture accelerator building is located at the center and includes surrounding outdoor space and blue tanks on right hand side. The two story building is Hale Iako Incubator building.



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Photo curtesy of Symbrosia

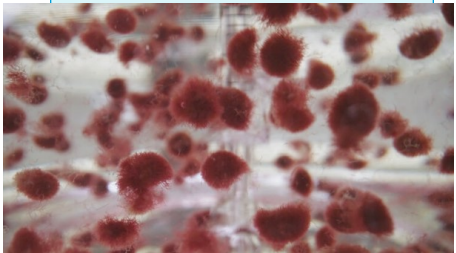


Photo from Blue Ocean Barns website

TWO LIMU KOHU PROJECTS EXPAND AT NELHA

There are currently two *Aspargopsis taxiformis* (limu koku) projects at NELHA. This seaweed, when used as a feed ingredient, can apparently drastically decrease methane emissions by cows—by up to 90%! The race is officially on to scale up production and HOST park is a great location to grow this local species.

Symbrosia Inc., one of HATCH's 2019 cohort companies, is re-purposing existing algae ponds and facilities and has successfully started outdoor grow out (top picture on left).

Meanwhile, Blue Ocean Barns Inc., from Honolulu's 2019 Elemental Exccelerator

cohort, has established their nursery at NELHA (seaweed from their nursery in lower picture on left) and is also looking at scaling up rapidly. Blue Ocean Barns received final NELHA Board approval and executed a long term sublease with NELHA for a 10 acre production facility which they plan to make operational soon.

The seaweed is a local species and has long been used in Hawaii for poke and others foods for human consumption. This natural solution to improve on the carbon footprint of dairy and beef farms has also been shown to improve the health of the animals.

“Great things are not done by impulse, but by a series of small things brought together.” Vincent van Gogh.



HATCH Hawaii Companies

2021 HATCH PROGRAM TO FOCUS ON HAWAII EARLY STAGE PROJECTS

HATCH has invested in over 35 companies and run two cohorts in 2019 and 2020 since partnering with NELHA. They have also raised over \$8.3M in their initial associated follow on fund. Their team has grown to 10+ full time members. HATCH's vision is to catalyze farmed and alternative seafood innovation through responsible investment, expertise and insights, supported by a strong community. They have built a 100+ strong mentor network. And all of this is available this year through an innovation studio which will focus on Hawaii projects.

HATCH is looking for local Hawaii projects to help support and hopefully become candidates for seed and possibly follow on funds. Application deadline is July 7th. [Apply here.](#)

LIMITED TO
10 PARTICIPANTS

PART-TIME

FULL HATCH TEAM
ACCESS

AQUACULTURE
AND ALTERNATIVE
SEAFOOD NETWORK

PITCH & INVESTOR
GUIDANCE

NO COST,
NO EQUITY

SUPPORTING YOU TO START UP IN TROPICAL AQUATECH



Paul Aceret (left) and Kevin Tapley (right) enjoy some temporary shade.

NELHA'S OPERATIONS DEPARTMENT WELCOMES TWO NEW STAFF MEMBERS

Please join us in welcoming two new staff members to the operations department, now headed by Allon Thompson, former NELHA Electrician.

Kevin Tapley joined us in April 2021. He was previously a maintenance mechanic with the FairWind. He is skilled at repairing and maintaining engines, equipment, pumps, heavy machinery as well as running all of these. He is also skilled at rebuilding boats and is a scuba diver.

Paul Aceret joined NELHA about one month later. Some of you may recognize him as he worked at Cyanotech for 14 years. He has over twenty years experience with industrial machinery and is joining the NELHA operations team as an electrician.

COVID CLINIC OFFERED AT HALE IAKO

NELHA, the Hawaii Department of Health, and Premier Medical Group Hawaii partnered to offer a free COVID vaccination at HOST park on June 24, 2021. The full day clinic was open to everyone above the age of 12 and pre-registration/appointments or walk ins were accepted. Participants could choose from three vaccines (Pfizer, Moderna and J&J).

If you missed this upbeat community-minded team, they will be back on July 15th, 2021 to administer second doses or new first doses.



Any questions? Call David Buck at 808-304-9745 or email him at david.buck@pmgusa.org

RESEARCH CAMPUS EXPANSION

Master planning and design has started on a research campus expansion. The current 6 acre campus is close to full capacity at this time. The expansion will add approximately 7 acres in an area approximately 1,000 ft south of the existing campus.

Funds have been secured to build the first building which will provide 20,000 sq ft of office space and lab space including wet lab space as well as outdoor tankage and project area.

We are excited to have hired WRNS Studio from Honolulu for the planning and design work and hope to share conceptual plans with you all later this summer!

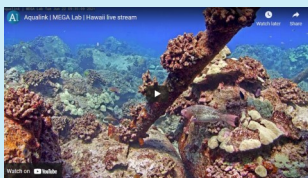
Are you enjoying this newsletter?

Previous issues of The Pipeline are available on our website:

- [Summer 2019](#)
- [Winter 2019/2020](#)
- [Summer 2020](#)
- [Winter 2020/2021](#)

NELHA has assisted previous winning projects and is ready to help you win as well! Please reach out to us at nelha@nelha.org

Recent exciting viewing included mating octopus forefront and center stage (snap shot on front page of this newsletter!



ENCORED MICROGRID PROJECT PICKS UP STEAM—SEAWATER, SOLAR, AND STORAGE

Significant progress has been made on the construction planning for a 500kW PV array and 760kWhr battery storage system at the 55" pump station. The 55" pump station microgrid project, an international partnership with the Republic of Korea and the State of Hawaii, will use artificial intelligence to increase efficiency of the cutting-edge renewable energy system. NELHA is currently wrapping up the 90% design review process with its partners, and permit applications will be submitted in early July. If all goes well, construction will begin in late 2021 and the project completion date is scheduled for June 2022. The 55" pump station microgrid project is projected to provide approximately 35% of the energy requirements of our current pumping load at the 55" pump station.



Encored microgrid design at 55" pump station.

FROM THE DEEP

Allon Thompson, NELHA's new Operations Officer, and the NELHA Operations crew had their hands full with two very significant leaks that needed repair early this year. The before and after images below speak for themselves. With the help of a contractor, ITC Water Management, the situations are now back under control. Thank you to all of our clients for their cooperation on these significant repairs. These will allow us to maintain our 99.99% uptime!



NEW: KONA SEA SALT TOURS

Kona Sea Salts has opened its deep sea water salt harvesting facility to the public. They provide daily tours Tuesdays through Fridays to educate visitors about the different types of salt, their salt harvesting methods, and the significance of salt in Hawaiian culture.

More information can be found at their [website](#).

Kona Sea Salts is also looking at providing cultural and culinary events at their facility. And it seems people are taking notice of the uniqueness of the mineral composition of deep sea water salt. Look for Kona Sea Salts in an upcoming edition of Guy Fieri's Diners, Drive-Ins and Dives.



Marketing Material Courtesy of Kona Sea Salt

“The cure for anything is salt water: sweat, tears or the sea.” Karen Blixen.

LIGHT MANUFACTURING STARTS OPERATIONS AT HOST PARK

Light Manufacturing, Inc. (LMI) has started operations at its 1 acre facility by the Gateway Center. LMI uses patented technology to mold commercial grade high capacity water tanks using solar energy through heliostats. They can also mold septic tanks, aquaculture tanks, road barriers, kayaks and other products.

The technology is containerized and was set up by LMI technicians in a matter of a few months.

This facility is LMI's first commercial facility following a successful pilot installation in California. The manufacturing plant generates no pollution, has no carbon emissions, zero fuels costs and eliminated the need for expensive shipping to the islands. At some point, they also hope to use recycled plastics as raw material although this will require some additional and significant R&D.

More information can be found at LMI's [website](#).



LMI heliostats (top) and Containerized molding Unit (bottom). Photos courtesy of LMI.

NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY

NELHA administers the world's premier energy and ocean technology park. This unique master-permitted park is located on 870 acres of prime coastal property in Kailua-Kona Hawaii and offers research support facilities for the development of renewable energy and other demonstration projects that utilize the unique resources found at the park. It is the world's only facility that continually brings ashore high quality, pristine supplies of both warm surface and cold deep seawater 24 hours a day which allows for various tests to take place with intent to reap economic potentials from the dual temperature seawater delivery system and high solar insolation. Tenants located in HOST Park work at the pre-commercial, commercial, research and educational levels. It is the largest diversified economic development project in the State and is solely focused on developing green economic projects.

BACK IN THE DAY...



Cyanotech Inc., manufacturer of Bioastin and Hawaiian Spirulina, is one of NELHA's first clients. They started construction in 1984, steadily increasing their

footprint to approximately 90 acres. Below is a shot of their initial 4 acre facility (photo courtesy of Gerry Cysewski).

Natural Energy Laboratory of Hawaii
Authority
73-4460 Queen Kaahumanu Hwy.
#101
Kailua Kona, HI 96740

Phone: 808-327-9585
nelha.hawaii.gov
E-mail: nelha@nelha.org



PLEASE
PLACE
STAMP
HERE

