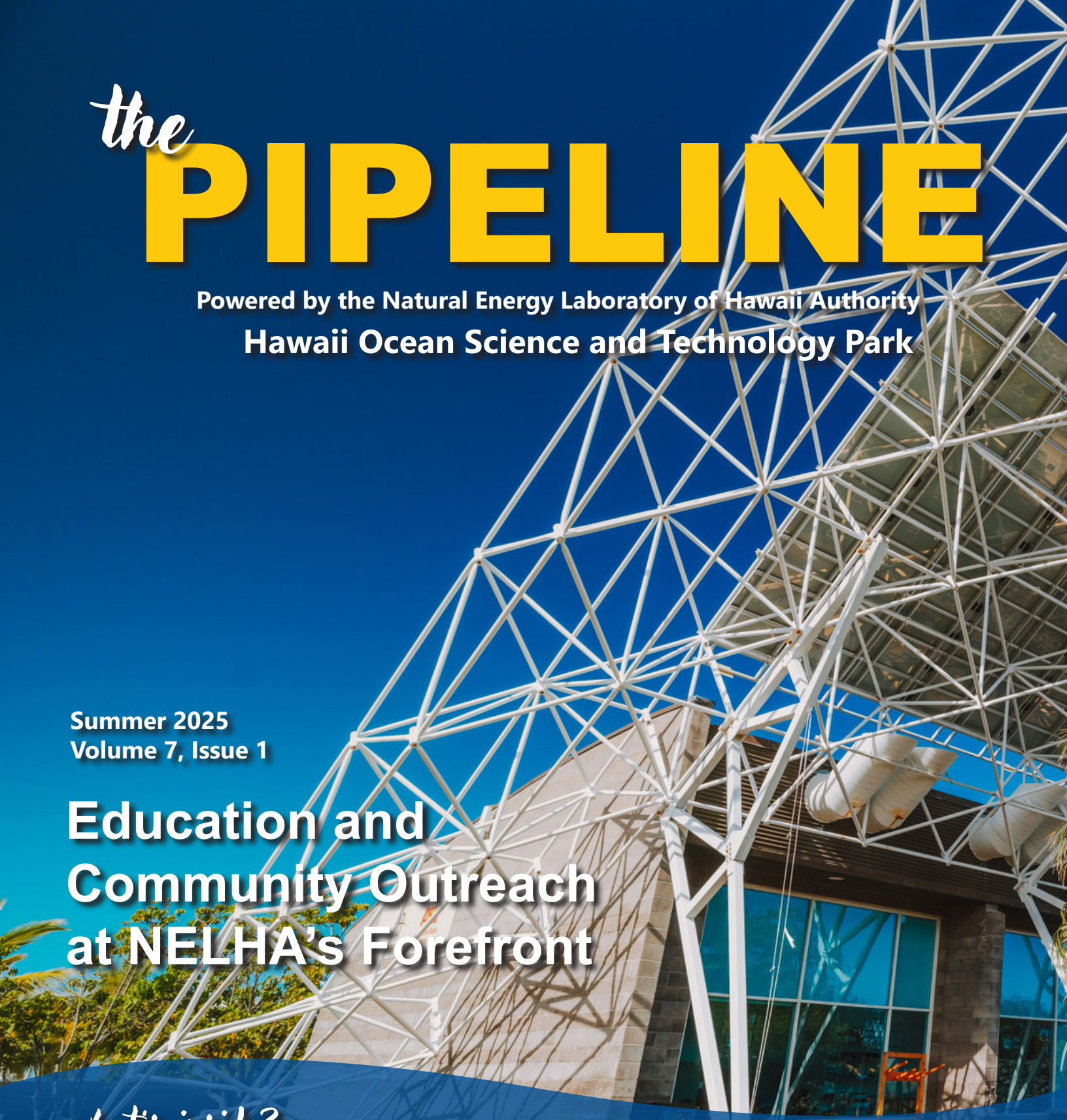
the PIPELINE

Powered by the Natural Energy Laboratory of Hawaii Authority

Hawaii Ocean Science and Technology Park



Summer 2025
Volume 7, Issue 1

Education and Community Outreach at NELHA's Forefront

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Reflecting First Six Months

As the new executive director of NELHA, one of my priorities has been to visit with tenants who chose to be part of HOST Park.

Over the past few weeks, I've had the chance to meet with a wide range of businesses and organizations working in ocean science, aquaculture, energy, and more.

These visits have been incredibly valuable—not just to learn about the exciting work happening here, but to nurture relationships with our tenant ohana, the people who make HOST Park what it is.

The over-arching one-word description of HOST park is 'life.'

Plant life, animal life, and carbon base life forms (humans).

I've seen everything from innovative seaweed farming to clean tech startups and long-standing aquaculture operations that feed the people.

Every stop was a reminder of how unique this community is.

People are passionate about their work, committed to sustainability, and deeply invested in Hawai'i's future.

I've appreciated the honest conversations—what's going well, what could be better, and where NELHA can help.

I plan to have ongoing visits while leaning into the history of this place and space, to use the practices of the past to guide our stewardship in the future.

This may bring future generations closer to a beautiful age.

Mahalo to everyone who welcomed me into their space—I'm blessed to be part of this community.

Riley Saito

the PIPELINE

HOST Park - Powered by the Natural Energy Laboratory of Hawaii Authority

About NELHA

The mission of the Natural Energy of Hawaii Authority (NELHA) is to develop and diversify the Hawaii economy by providing resources and facilities for energy and ocean-related research, education, and commercial activities in an environmentally sound and culturally sensitive manner.

NELHA TEAM

Bryan Babbitt, Eng. Projects Coord.
Chad Debina, General Laborer II
Faustine Edge, Administrative Asst.
Jeremy Fukunaga, Groundskeeper
Dr. Alex Leonard, Chief Projects Ofc.
Edward Lizama, Utility Electrician I
Pam Madden, Water Quality Lab Mgr.
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Rae Nguyen, Mktg. & Leasing Spc.
Keith Olson, Chief Ops & Science Ofc.
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Follow Us On SOCIAL MEDIA!

STATE OF HAWAI'I

FRESHWATER BENEATH THE Sea?

New Survey Aims to Unlock Hawaii's Hidden Aquifer

A groundbreaking two-week offshore imaging survey, funded by the Hawai'i State Legislature, recently completed off West Hawai'i in 2025.

This collaborative effort between NELHA, the Hawai'i Institute of Geophysics and Planetology, and Scripps Institution of Oceanography aims to confirm a potentially vast underground reservoir of fresh or brackish water beneath the ocean floor.

This investigation began in 2018 with the detection of a deep, confined aquifer, which could explain the long-standing mystery of Hawai'i Island's water cycle, where observed coastal discharge doesn't match estimated groundwater recharge.

The survey used advanced electromagnetic imaging across three key areas, while prioritizing environmental protection by monitoring marine life and ensuring minimal impact.

Data analysis is currently taking place and results are expected early in December.

If confirmed, this hidden aquifer would profoundly transform our understanding of island hydrology and significantly bolster Hawai'i's future water resource planning, offering a critical new source in the face of increasing drought and climate change.

For more info, visit nelha.hawaii.gov/resources/freshwater-beneath-the-sea-2025.

BUILDING HAWAII'S FUTURE WORKFORCE

NELHA Expands Workforce Development Pipeline with HISE and Ewalu Industries

NELHA is actively cultivating the next generation of talent for Hawai'i's blue economy through strategic partnerships.

Collaborating with the Hawai'i International Science Experience (HISE) and 'Ewalu Industries, NELHA creates educational pathways that connect youth to real-world opportunities in sustainable fields, often centered at HOST Park.

HISE offers immersive science programs for students, while 'Ewalu Industries focuses on career development, including the new "Huaka'i to HOST Park" teacher externship program.

This pilot invites HOST Park tenants to host educators on Friday, July 25th, allowing teachers to develop curriculum rooted in real-world STEM applications and expose students to future careers.

These initiatives provide teachers and students with early exposure to science, technology, and sustainability, introducing them to HOST Park's unique ecosystem of companies and researchers.

NELHA views these programs as a long-term investment, aiming to spark early interest, build relationships with promising students, and create a pipeline of future interns, collaborators, and employees for a robust local workforce.

With strong participation and tenant support, NELHA is dedicated to expanding these vital partnerships across the islands.

HOST Park's Next Talk Story to Spotlight

OCEAN CONSERVATION

Tenants Encouraged to Join, Present or Help Spread the Word

We're excited to announce our next Talk Story: Ocean Conservation on Saturday, July 26, featuring **Ke Kai Ola – The Marine Mammal Center**, **Terraformation**, **Ako'akoa Reef Restoration**, **Dr. John H.R. Burns of UH Hilo** and **Kona Salt Farm**.

HOST Park's "Talk Story" series is quickly becoming a powerful platform for community outreach and engagement, sparking real conversations between our tenants, local organizations, and residents about the future we're all building together.

Short presentations lead into small group conversations where attendees rotate between stations, making space for hands-on learning and deeper discussions.

It's a chance for the public to meet the people and projects behind Hawai'i's growing blue economy.

Help us spread the word in your networks and share ideas or topics for future events.

Let's keep the momentum going and strengthen our relationships with the community as we lay the groundwork for future NELHA initiatives.

Questions or ideas? Reach out—we'd love to hear from you.

For details and updates, visit: nelha.hawaii.gov/events.

A Hui Hou
Big Island Abalone!

After three decades of pioneering aquaculture innovation on the Kona coast, KOWA Premium Foods Hawaii Corporation dba **Big Island Abalone** closed its doors at HOST Park June 9, 2025, marking the end of an era for one of the park's longest-standing tenants.

Founded in 1997, Big Island Abalone established itself as a leader in sustainable shellfish farming, cultivating premium Ezo (Japanese Northern) abalone in the nutrient-rich seawater uniquely available at HOST Park.

Over the years, Big Island Abalone played a vital role in Hawaii's aquaculture industry, contributing to research, education, and the local economy.

The facility was also a popular visitor destination, offering tours that educated guests on aquaculture practices and ocean sustainability. They also provided tastings through their food truck and BBQ offerings.

Its presence helped put HOST Park on the map as a hub for ocean-based innovation.

Despite the closure, Big Island Abalone's legacy remains — as a model of sustainable seafood production and a testament to the potential of Hawaii's blue economy.

NELHA and the broader community reflect with appreciation on Big Island Abalone's contributions. And who knows? They just might return in a different form.

Their departure will leave a noticeable void, but their impact will continue to ripple through the industry for years to come.

what's in the WATER?

Chemical testing initiative launched to address larval mortality at HOST Park

By **Pam Madden**, NELHA Water Quality Manager

The independent 2024 investigative report of seawater quality issues relating to larval survival rates provides a short-and long-term recommendation list for both HOST Park and Keahole Point Larval Group (KPLG) hatcheries aimed at improving water quality for larval rearing.

One of the items on the HOST Park list includes launching a chemical testing initiative to identify chemical factors in surface seawater that could be the cause of larval mortality.

These potential contaminants of interest are outside the in-house capabilities of the NELHA WQL and, thus, not part of the routine environmental monitoring program.

Therefore, outside lab services were contracted to test for 5 parameters of interest – total dissolved gas, metals, pesticides, herbicides, and total petroleum hydrocarbons.

Results from this testing should help us more fully understand and characterize the quality of our surface and deep seawater being delivered to clients.

Samples from our pumping stations were collected in March.

The final report can be found here.

Additionally, efforts are being taken to understand the source of the still unknown causative factor for the episodic poor larval survival rates.

To try and pinpoint the source of the water impacting larval survival rates, a series of toxicity tests will be performed.

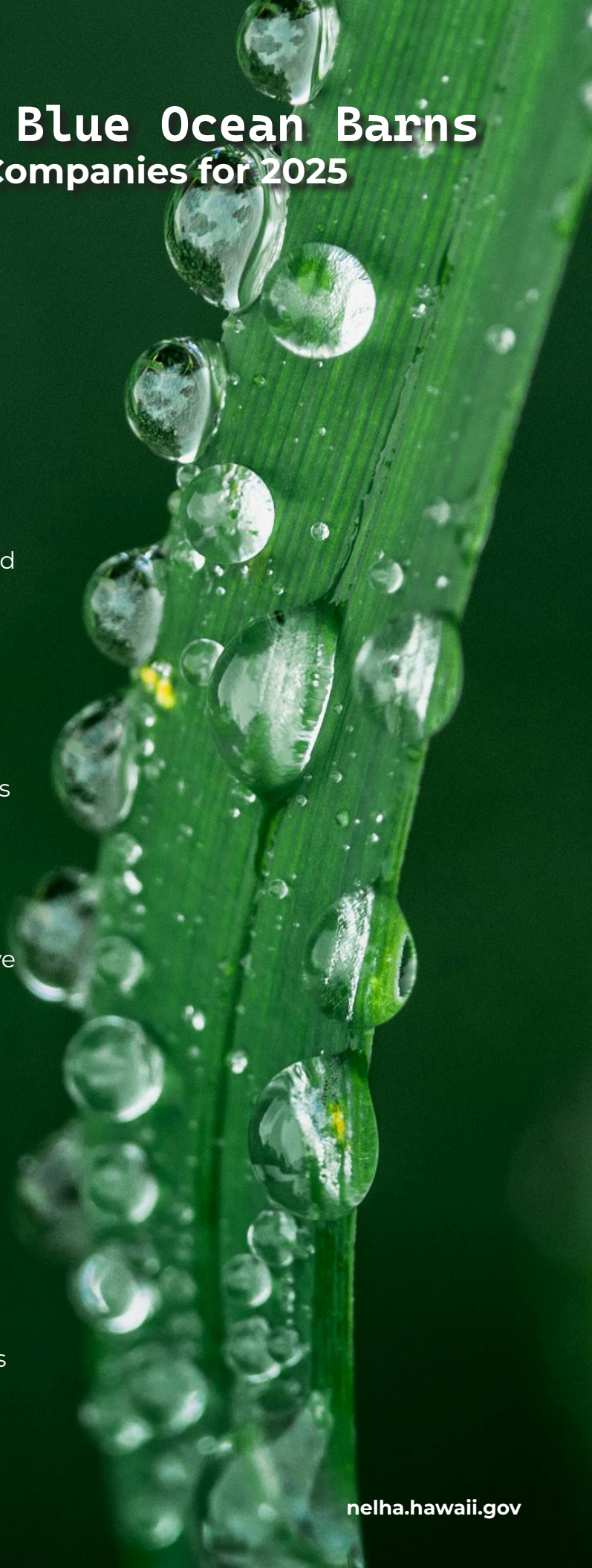
Three rounds of samples will be collected from a variety of locations ranging from the ocean directly above the surface seawater intake pipes, at the pump stations, locations along the pipeline, and at 3 facilities representing a fish farm, bivalve farm and shrimp farm.

This toxicity (bioassay) project is designed to provide lethal and sub-lethal data utilizing a shrimp and fish species, following EPA methods.

These chronic toxicity testing methods will include the effects of synergistic, antagonistic, and additive effects of all chemical, physical, and additive components which adversely affect the physiological and biochemical functions of the test organisms.

The 1st round of sample collection was on May 1st. Results will be available on the NELHA website soon.

Terraformation and Blue Ocean Barns
Rank in Greentech Companies for 2025



HOST Park's very own **Terraformation** and **Blue Ocean Barns**, have been named to TIME and Statista's 2025 list of America's Top GreenTech Companies, an annual ranking that honors innovation and measurable environmental impact, recognizing 250 companies across the United States advancing sustainability through green technology.

Compiled by data firm Statista and published by TIME, the ranking evaluates companies based on environmental performance, financial strength, and technological innovation.

Ranked # 195, **Terraformation** focuses on global forest restoration, supporting reforestation projects in biodiversity hotspots through seed banking, solar-powered nurseries, and its proprietary software platform, Terraware.

Its work has helped accelerate carbon capture efforts through the planting of native species around the world.

Also featured in the ranking is **Blue Ocean Barns.** The company has developed a seaweed-based cattle feed additive that drastically reduces methane emissions from livestock—one of the leading sources of agricultural greenhouse gases.

Its innovation is currently being piloted with major dairy and beef producers across the U.S.

Blue Ocean Barns' ranking at #132 highlights the growing national impact of sustainable agtech solutions emerging from Hawai'i.

Hale 'Iako
OFFICE SPACE FOR LEASE

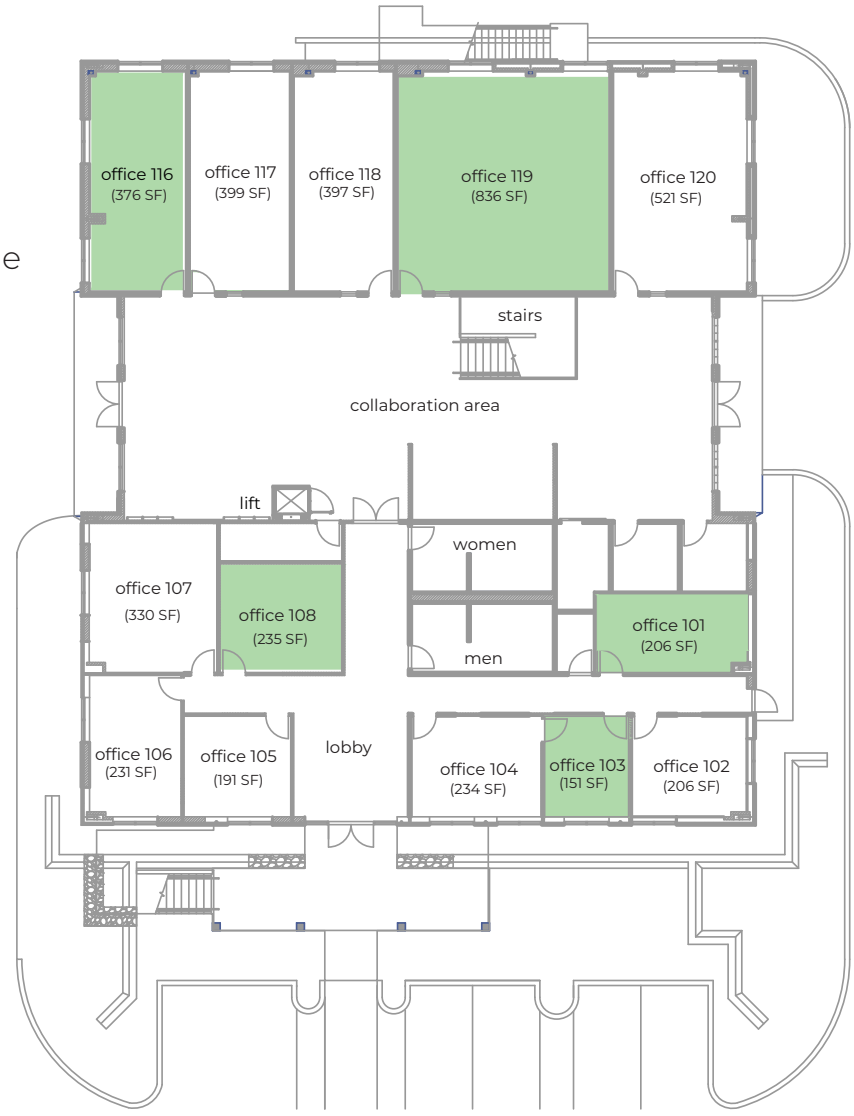
Elevate Your Innovation at HOST Park ...

Discover Hale Iako – a 15,000 sq. ft. hub at HOST Park designed for cutting-edge businesses.

This building offers a stunning oceanview conference room perfect for impactful presentations, alongside an expansive collaborative space to foster creativity and teamwork.

This isn't just an office building; it's the perfect environment to innovate, collaborate, and showcase technologies.

Consider a future at HOST Park!



* Available offices highlighted in green

features

- security, parking and mailboxes
- business planning services
- co-working space
- state-of-the-art conference room
- air-conditioned by deep seawater
- outdoor lanai and ocean views
- outdoor demonstration space
- base rent: $2.39 - $2.74/sq. ft.
- no CAM charges
- access to latest HOST Park news
- free wi-fi available
- shared kitchen amenities

Jamestown Seafood expansion

Jamestown Seafood is expanding its aquaculture operations to a nearby site previously occupied by **Shrimp Improvement Systems** at HOST Park.

This strategic move marks a significant step in Jamestown's growth in Hawai'i, allowing the company to increase production capacity and broaden its research and development capabilities.

Known for integrating Native S'Klallam heritage with modern, sustainable aquaculture practices, Jamestown Seafood will repurpose the existing infrastructure to support its shellfish hatchery and nursery operations.

The expansion underscores both the company's long-term commitment to Hawai'i's blue economy and HOST Park's role as a catalyst for cutting-edge marine innovation.

CELEBRATING *10 Years of Service*

Dr. Alexander Leonard, our Chief Projects Officer, has been recognized by DBEDT for his ten years of dedicated service at NELHA.

His leadership and technical expertise have been vital to NELHA's continued success as a hub for sustainable development.

He has been instrumental in advancing several major initiatives at HOST Park, including the development of Kahilihili Street (the new frontage road), the Hale Iako Incubator building restoration, and leading the implementation of a solar-thermal forward osmosis desalination plant at HOST Park—an innovative project that secured $2M in federal funding and supports freshwater production for aquaculture.

Dr. Leonard will be honored at DBEDT's Service Awards Ceremony August 5 at the Capitol District Building in Honolulu.

Meet our new
BOARD MEMBERS

Neil Anthony Sims is the founder and CEO of **Ocean Era**, an aquaculture R&D company based in Kona, Hawai‘i, focused on sustainable offshore culture of finfish and macroalgae.

He also is the CEO of **Kona Limu Company**, harvesting various seaweed commercially.

He leads efforts to reduce environmental impact by cultivating “blue foods” in natural ocean habitats and shifting away from wild-catch reliance—also championing plant-based fish feeds and rigorous permitting standards.

With a B.Sc. in Marine Biology from James Cook University and M.Sc. in Zoology from the University of Southern Wales, Neil is at the forefront for marine hatchery innovation. He was voted into this position by fellow tenants at HOST Park.

Ian C. Hirokawa is the Acting Administrator of the Land Division at the Hawai‘i Department of Land and Natural Resources (DLNR), based in Honolulu.

In this role, he oversees management of public lands and water by assisting the Board of Land and Natural Resources to ensure that the use of these resources are consistent with the public trust.

He also represents DLNR in community planning discussions, such as land acquisition and management initiatives statewide.

Mr. Hirokawa will represent DLNR on the Board.

Dr. Chad B. Walton is the Interim Vice President for Research and Innovation at the University of Hawai‘i.

A UH Mānoa Ph.D. graduate in Molecular Biosciences and Bioengineering, he leads systemwide research initiatives, promotes STEM and economic development, and works to expand funding partnerships.

His background includes NIH- and NSF-funded research in cardiology, gene delivery, and vaccine development, and he holds multiple U.S. patents. Dr. Walton will represent UH on the NELHA Board.

NEW TENANTS

Welcome!

We're excited to welcome the following two innovative projects and ingenuity they bring to the park. E Komo Mai!

OceanBit is a Hawaii-based company pioneering a modern take on OTEC by pairing clean, continuous ocean energy with high-density offshore data centers.

Their system, called Demand Response OTEC (DROTEC), uses the natural temperature difference in ocean water to generate power 24/7, while also using cold deep-sea water to efficiently cool servers.

Learn more at www.oceanbitenergy.com.

Kona Butterfish Company is an aquaculture startup farming premium sablefish (locally called "butterfish") offshore using pristine 3,000-ft deep seawater.

At the core, KBC combines sustainable seafood production with cutting-edge cold-water tech—pumping cold, oxygen-rich seawater to grow fish, cool facilities, and reuse nutrient-rich discharge possibly for seaweed farming—while ensuring traceability and minimal environmental impact.

For more info, visit www.konabutterfish.com.

HOST Park Success Videos Now Online

Explore the innovative work happening at HOST Park through a new series of success story videos now available on our Vimeo account. Discover how **West Hawai'i Explorations Academy**'s hands-on learning model earned it recognition as one of the 2025 Best Public High Schools in Hawai'i.

Learn how companies like **Jamestown Seafood** and **Pacific Hybreed** are thriving at HOST Park, leveraging its unique resources to grow their sustainable ocean-based operations.

Watch the full series at vimeo.com/hostparkpoweredbynelha.

VISITING HOST PARK

DISCOVERING SOMETHING NEW: *Students from Waianae High School's Marine Science Learning Center visit HOST Park for the day, learning about various limu and tasting different flavors of salt from Kona Salt Farm. Photos by Kukalia Pilila'au*

Explore the Possibilities...

HOST PARK

Consider Your Future here!

AVAILABLE SPACE FOR:

Innovation | Business Incubation
Research | Demonstration
Commercialization

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NELHA