



# NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY

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



Draft

**BOARD OF DIRECTORS  
MEETING MINUTES  
Tuesday, July 20, 2021  
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**

**and via Zoom Video Conferencing Software.**

**Members/Designees in Attendance**

William Mielcke (Gov. Appointee/Chair)  
Cyd Miyashiro (Gov. Appointee/Vice-Chair)  
Dr. Gerry Cysewski (Tenant Representative)  
Robert Masuda (DLNR)  
Dr. Vassilis Syrmos (University of Hawaii)  
Douglass Adams (County of Hawaii)  
Dr. Phil Bossert (RAC Secretary)  
Neil Sims (Tenant Representative)

**Guests/Staff Present**

Greg Barbour (Executive Director)  
Laurence Sombardier (Dep. Director)  
Dr. Alex Leonard (NELHA)  
Daniel Jacobs (Deputy AG)  
Wayne Murphy, (Co-Founder HATCH)  
Aldric Ulep, (House Finance)

**Board Members Not Attending and Excused**

Linda Rosehill (Gov. Appointee)  
Chung Chang (DBEDT)  
Alan Hilton (RAC Chair)

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

The meeting was called to order by Chair Mielcke at 10:03 a.m. Upon calling the meeting to order, Chair Mielcke requested a roll call of Board members, NELHA staff, and guests in attendance.

- **Item 2. Approval June 8, 2021, NELHA Board of Directors' Meeting Minutes.**

Chair Mielcke entertained a motion to approve the June 8, 2021, minutes. The motion was made by Director Masuda and seconded by Director Bossert. No discussion ensued or corrections were noted. The motion carried unanimously following no objections.

**Chair Mielcke announced that as a courtesy to the number of guests waiting, we would like to take Item 4a next and then return to Item 3 the Financial Report.**

- **Item 4a. New Business – Discussion and Decision-Making regarding the execution of an agreement between NELHA and Hatch Accelerator Fund LP to continue the aquaculture accelerator program to 2025.**

Deputy Director (DD) Sombardier summarized the past three years of the current aquaculture accelerator initiative.

- Launched August 2019 with HATCH.
- 21 startups (\$100K seed funding each) in 2019 and 2020 cohorts.
- Hatch raised \$8.4M in associated follow-on fund. They have started a 2<sup>nd</sup> follow-on fund with goal of \$40M.
- 20% of companies are located in Hawaii: Kuehnle AgroSystems, Minnowtech, Symbrosia and SeaWarden – approx. 20 new jobs, 4 interns
- Coming up is an Innovation Studio with focus on Hawaii– starting Aug 2.
- HATCH has been very successful in providing Hawaii with access to the global aquaculture network.

Deputy Director (DD) Sombardier stated that NELHA was recently awarded a new grant from the Economic Development Administration. The summary is as follows:

- Island of Hawaii Aquaculture Growth Project: \$3.1M total including cost share (80% federal). \$2.3 M for programmatic work (awarded) and \$820K for construction (in progress).
- Of the \$1.8M federal share for programmatic work, \$1.4M will go to HATCH. HATCH will match with \$352K.
- 4-year goal: develop long-term self-sustaining aquaculture accelerator program at NELHA to benefit global & Hawaii aquaculture.
- Accelerator: 75 companies; Incubator: 25 companies. Increase cohort size from 10 to 20 companies per cohort.
- \$40M associated follow on fund to be raised.

- Ideation workshops to capitalize on local innovation.
- Total jobs over 4 years in Hawaii: approx. 240 jobs.

Anticipated benefits to Hawaii will include:

- Self-sufficient long-term accelerator program based at NELHA which will cover its operating expenses (including rent) by 2026.
- Establish Hawaii/NELHA as a key global player in sustainable aquaculture.
- Increased marketing for NELHA (\$80,000 provided by EDA in year 1).
- Improved facilities at NELHA (lab, instrumentation, tanks, meeting space and mobile fleet).
- Pipeline of new projects to be established at NELHA.
- Diversify, promote entrepreneurship, and increase resiliency of Hawaii's economy and new high-quality jobs.

Next steps include:

- Execute contract with HATCH.
- Work to start October 1, 2021. Project will end September 30, 2025.
- Once construction portion is awarded, complete construction within 1.5 years.

Wayne Murphy gave remarks and indicated they are very excited by this new grant and will be expanding their staff in Hawaii as a result.

He summarized their new Innovation Studio that will start next month. They are seeing a lot of activity in Hawaii, but it is at a very early stage. They would like to encourage and nurture these companies to move into the sector by connecting and exposing them to the global aquaculture network. This Innovation Studio is provided free of charge to the companies, and HATCH does not take an equity position in the companies.

They received approximately 100 applications from 26 countries and approximately 25 percent were from Hawaii. They selected 10 companies to participate in the program and 5 are Hawaii based.

Director Miyashiro asked about how the program will develop long-term corporate partnerships for the long-term funding of the program and if that could be explained further and the feasibility. Mr. Murphy responded that with HATCH's global footprint they are finding more and more corporations wanting to get closer to the start-up culture. HATCH has found this to be the case in other locations around the world and as this initiative will create a vibrant ecosystem and raise the profile and facilities as well as additional companies at NELHA they anticipate we will see an increase in these corporate partnerships.

Director Adams asked if it is a requirement for the companies to be based in Hawaii. Mr. Murphy responded that it is not a requirement, but the initiative is intended to facilitate a pipeline of Hawaii companies and marry that to the space and facilities at NELHA. Also, they would like to attract companies from around the world to base themselves in Hawaii and export the technology globally. Director Adams followed up if potential job opportunities will be made available to Hawaii residents. Mr. Murphy responded that the real goal is to stimulate local innovation and provide jobs in Hawaii by attracting more research dollars to Hawaii. DD Sombardier added that our experience over the last several years has been that 20 percent of the companies have been either Hawaii based or moved to Hawaii, and we expect that this will be the case going forward.

Director Masuda commented the need to be sensitive to the native Hawaiian culture and understanding that as an island we are very cognizant of the “finite resources” and sustainability as opposed to a more “continental” ideology that is much less so. If we are going to seek out and attract native Hawaiian businesses, then we should actively recruit them.

Director Masuda made a motion to approve the staff recommendation, and Director Syrmos seconded the motion.

The Board voted by roll call. Seven directors voted to approve (Director Sims had not yet arrived). The motion to approve the staff recommendation to approve was adopted. Final contract documents will be subject to approval of the NELHA Deputy Attorney General.

- **Item 3. Financial Report: Approval and Decision Making.**

ED Barbour presented and overview and summary the Financial Report in the board packet (Attachment A).

Director Bossert noted that “non-profits” accounting practice is normally to characterize revenues that you receive in one fiscal year that will be expended in the next fiscal year as deferred revenues. This might be something NELHA should look at help line up expenses and revenues.

Chair Mielcke called for a motion to accept the report. Director Bossert made the motion which was seconded by Director Masuda. There being no further discussion or questions concerning the Financial Report, Chair Mielcke thanked NELHA and its staff for its report.

- **Item 4b. New Business – Discussion and Decision-making regarding proposed NELHA Fiscal Year 2022 Budget.**

ED Barbour summarized the proposed budget for this Fiscal Year as shown in Exhibit B.

Director Masuda made a motion, seconded by Director Cysewski to approve the staff recommendation to approve the proposed FY 2022 budget as presented.

Director Sims joined the meeting.

The Board voted by roll call. Seven directors voted to approve, and Director Sims abstained as he had just joined the meeting.

- **Item 4c. New Business – Create a Special Investigative Committee for the purpose of preparing and delivering to the Board the annual performance evaluation for the period July 1, 2020 through June 30, 2021 of the NELHA Executive Director.**

Chair Mielcke proposed that the committee be established consisting of himself, Vice-Chair Miyashiro, Director Chung, and Director Cysewski.

Director Adams made a motion, seconded by Director Syrmos to approve the members of the Special Investigative Committee. A roll call vote was taken, and the motion carried unanimously with eight “yes” votes.

- **Item 4d. New Business – Discussion and Decision-Making regarding Draft Master Plan for New Research Campus.**

ED Barbour stated that WRNS Studio has developed a conceptual plan for this expansion area and we are bringing this to the Board for input, consideration and approval. As shown on Exhibit C, the area is approximately 9 acres. We feel that it is important to formulate an overall conceptual master plan for this area to provide for an efficient placement of infrastructure to allow the area to be developed in an orderly manner. There are two phases shown. Phase 1 would be developed over the next five to ten years and Phase 2 would be developed after that. Phase 2 would be developed using existing funds from FEMA and the insurance companies and include one single story building of approximately 20,000 sf with one-half offices and one-half wet lab space. Also shown is a pedestrian pathway connecting this area to the existing Research Campus (Phase 1). Phase 2a would include two buildings of approximately 30,000 sf and outdoor demonstration area of approximately 65,000 sf. There is adequate setback of 125 ft from the shoreline following NELHA design guidelines and this area also includes a historical site that will be preserved.

Vice-Chair Miyashiro inquired about the kinds of tenants anticipated. ED Barbour indicated that they would be very similar to the kinds of businesses in the existing

campus. The focus is the same as the existing campus. Ocean technology start-ups which include aquaculture and ocean conservation. We have made some adjustments in office based on lessons learned from our existing incubator building and have provided more of the smaller offices in the 200 to 300 sf range. We find these more popular. We envision this area also becoming a home to the aquaculture accelerator currently being operated by HATCH. DD Sombardier commented that we have received interest from the university and as such this area could include basic research as well as entrepreneur start-ups.

Director Sims asked if the Phase 2a graded area could be included in Phase 2? ED Barbour indicated that we will certainly consider it further. Dr. Leonard indicated that we are looking at it from a budgetary constraint and understand that there are economies of scale in grading a larger area.

Director Syrmos left the meeting.

Director Sims made a motion, seconded by Director Masuda to approve the draft master plan for the new research campus. A roll call vote was taken, and the motion carried unanimously with seven “yes” votes.

- **Item 5. Executive Director’s Informational Status Report on ongoing projects including: New leases; seawater system maintenance; new potable water supply update; aquaculture accelerator and investment fund initiative and grant application to extend accelerator for four additional years; renewable distributed energy resources initiative including grant applications and solicitations for microgrids, energy storage, and solar desalination; analysis HOST Park energy system; and, the grant application to the US government for damage to buildings and associated items in Kapoho, Hawaii.**

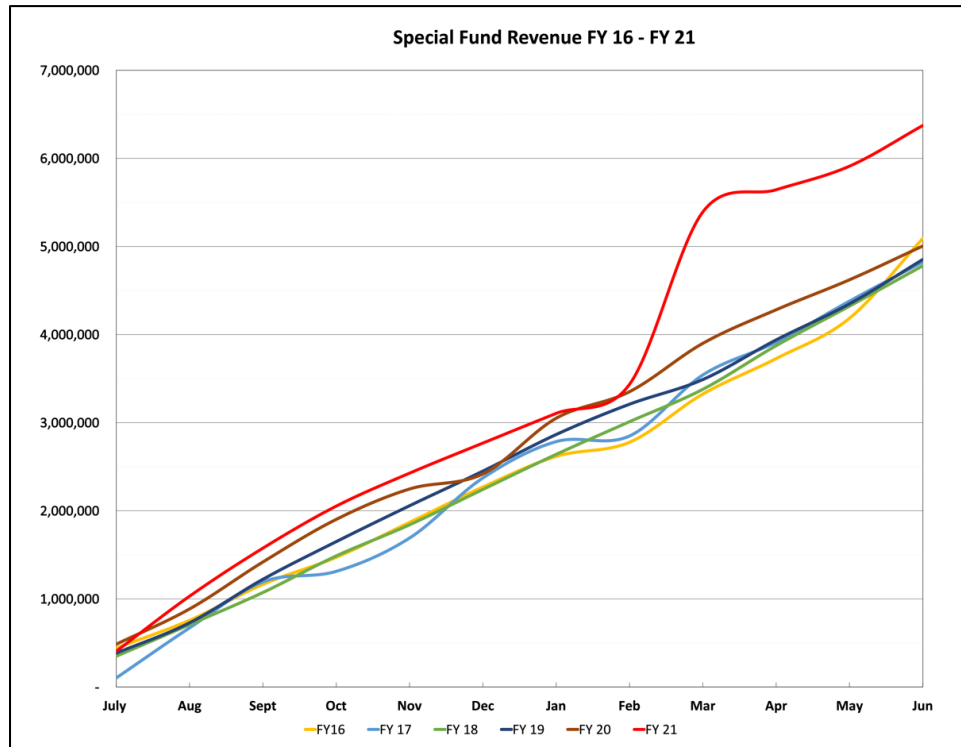
ED Barbour presented and overview and summary of NELHA’s major goals and key projects timeline as contained in the Board Packet (Exhibit D) as part of the Executive Director’s Information Status Report.

Chair Mielcke asked if there were any questions or comments. Hearing no further questions or comments, the report was accepted unanimously as presented.

- **Item 6. Announcements.**  
The meeting schedule for the period July 2021 through June 2022 was provided to Board members.
- **Item 7. Adjournment.**  
Chair Mielcke adjourned the meeting at 11:35 a.m.

**NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY**  
**Financial Report Summary**

July 2020 through June 2021

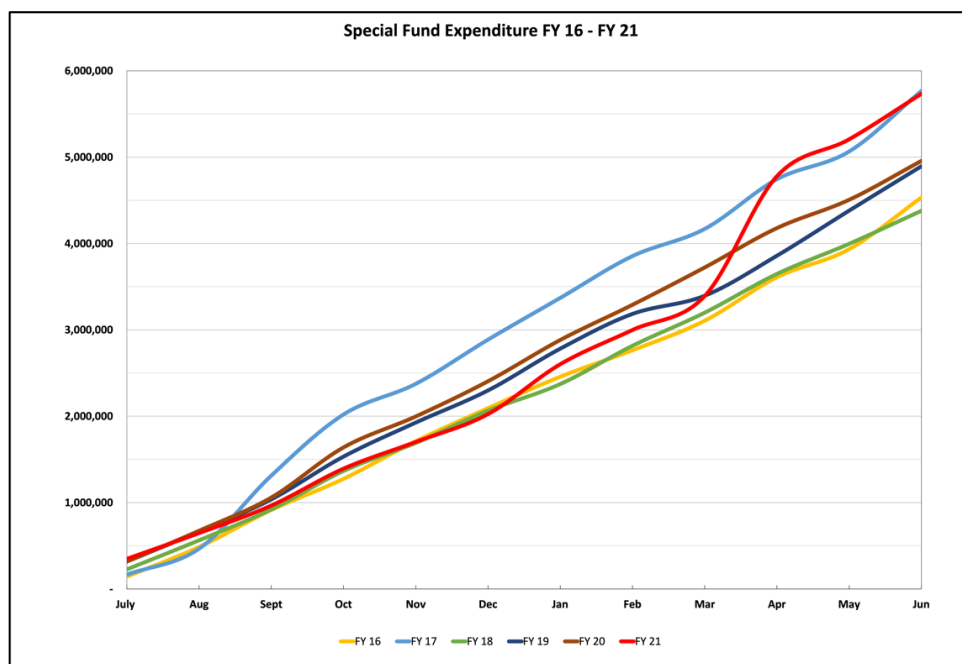


**FY 2021 Revenue vs. FY 2020 Revenue:**

- Total revenue was \$6.37M for the twelve months of this fiscal year and this represents an increase of \$1.37M or 27 percent for the same period last year. As shown on the chart above, this the highest over the past six years. In summary, this is due in large part to the \$1.3M received from the insurance for the damage to the Puna property. Otherwise, the revenue was relatively flat. On the downside seawater sales and electric reimbursements were down collectively by approximately \$480,000 while the additional funds from the sale of the HDM building, HHFDC and HNEI transfer amounted to an increase of \$575,000. Of notice for FY21 are the following:
  - Seawater system revenue is down by almost 17 percent due to lower demand and lower cost of electricity.
  - Lease base rent was flat.
  - For the Research Campus outside space revenue is up almost 40 percent (\$35,000) due to several new companies and office rent increased slightly by \$10,000.
  - Percent rent increased by 40 percent with the payment of arrears and a late payment for the same period last year.

- Labor services continues to increase and is up by over \$25,000 (80%) with additional lab services being provided to clients.
- Reimbursements for electric are down by \$145,000 or 30 percent and due to lower use (demand) and lower electrical costs.
- Special projects revenue is up by 1.55M or 1,000 percent with transfer payment from HHFDC and additional deposit from HNEI for the hydrogen project as well as the insurance reimbursements mentioned earlier.
- Misc. income is up by \$150,000 mainly due to payments from Blue Ocean Mariculture (\$300,000) for partial down payment and debt service the building they recently purchased. They paid \$150,000 partial down payment last year.

#### FY 2021 Expenditure vs. FY 2020 Expenditure:



- Total expenses were approximately \$5.73M and equals our record high of a similar amount in FY17. Expenditures are up almost \$730,000 or 15 percent over the same period as last fiscal year. This is mainly due to the \$1M contract with WRNS for the new campus design paid for with insurance proceeds. Otherwise, expenditures were down collectively by \$250,000 a majority of which is due to lower electrical costs. We continue to monitor expenditures very closely. Of note are the following:
  - Seawater system expenditures are down 17 percent (\$290,000) and is due to a combination of lower demand and lower price of electricity.
  - Tenant Utilities are also down by 20 percent or almost \$100,000. Electrical is down by \$110,000 mainly due lower demand (pandemic related?) and the cost per kWh while freshwater is up by 30 percent or \$15,000.



- NELHA utilities show the electrical costs doubling to \$30,000 flat and a large increase in freshwater due a significant leak in one of the distribution lines in the Research Campus that has since been repaired.
- Administrative costs are flat as compared to the same period last year. Mainly due mainly due to allocation of personnel costs amongst other categories and not filling of vacant positions.
- Ceded land payments are up slightly at 4 percent.
- Service assessments were paid late for last year and show up in this year's expenditures.
- Special projects up by \$1M with the payment for the WRNS contract paid for with insurance proceeds.

#### **Special Fund Account Summary:**

- All data is as June 30, 2021.
- Special fund balance is \$970,000 and up \$710,00 from \$260,000 in the past twelve months.
- This includes the pre-payment from HHFDC and HNEI of approximately \$300,000 and keeping \$250,000 from the insurance proceeds as a reserve. As such, not accounting for these funds and an "apples to apples" comparison would equate to a Special Fund balance of approximately \$420,000 or an increase of 60 percent or by \$160,000.
- Current arrears are \$115,000 and if arrears are collected this will bring the special fund balance close to \$1.1 million.

#### **Arrears Report:**

- As of June 30, 2021, the arrears totaled approximately \$115,000.
- Destiny Deep Sea Water and Ocean Rider made significant payments this fiscal year. Kona Cold Lobster has been impacted by the pandemic and recently submitted percent rent reports for the past several years.
- This is down slightly from this time last year.

NELHA – July 20, 2021

## **NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY**

### **Summary – Proposed Budget FY 2022**

#### **Overall Summary:**

- NELHA is managing a total of approximately \$15.6M in projects. Of this \$5.3M is Special Funds, \$5.0M is Federal Grants, and \$5.3M in previously funded CIP projects. There are no General Fund or new CIP appropriations for FY 2022.
- **Special Fund** – Revenue is projected at approximately \$5.2 million and proposed expenditures are approximately \$5.33 million. The Special Fund balance will actually increase to \$570,000 for reasons listed below. A detailed summary is listed below and shown on Schedule 1, 2, and 3 which are attached.
- **Grant Funds** – We have received several grants over the past few years and we continue to implement these projects. They include:
  - Solar Desalination Demonstration Project: - \$1.9M in Federal Funds from the US Department of Energy. These funds come from the Federal government into the State Treasury and then directly out to the main contractor Trevi Systems. As such these monies do not come into our special fund. A small portion of approximately comes into our special fund and we also pay some expenses with those funds.
  - The new 2<sup>nd</sup> EDA grant to operate the Hatch Accelerator is a \$3.1M project including cost share. \$2.3M for is programmatic work and \$800,000 for construction to improve incubator facilities. This is a four-year project beginning in October 2021.
- **CIP Funds/Projects** – We have a number of CIP projects, totaling \$5.3M, that are underway and ongoing from previous fiscal year appropriations. Funds for these projects are already encumbered and as such these funds do not show up in the FY2021 budget. Contracts with various firms are being managed by the NELHA Team. Projects include:
  - We continue to work with Encored Technologies Inc. regarding a design/build contract for the installation of 600kW of PV and 587kWh of energy storage at the 55" Pump Station. Total cost for this project is \$1.85M and is in the design stage.
  - We have a contract with RM Towill for the planning and design of a Regional Seawater Air Conditioning District. This is a \$250,000 contract and the projected was initiated last year.
  - We have a \$294,500 contract with TerraSond Inc for the underwater survey of the abandoned deep seawater pipes. This contractor is on the mainland and the project is delayed due to COVID-19 travel restrictions and technical difficulties. We also have a \$205,500 contract with Makai Ocean Engineering for the design and costings of strategies to secure or remove the pipelines.
  - We have a \$2.5M contract with Water Resources International for a exploration well for potable water. We are in the process of adding \$220,000 to this contract.

#### **FY2021 Proposed Revenue:**

- Total estimated revenue for FY2022 is \$5.2M. This is a decrease of almost 20 percent over last fiscal year. It is important to note that as mentioned earlier last year's revenue included non-recurring revenue from insurance proceeds, HHFDC and HNEI passthroughs totaling over \$1.6M

- We are using a low inflation factor from 1 to 4 percent for general items and specific categories are adjusted for anticipated changes. Categories of note are:
- HOST Park lease base rent is projected to increase slightly by approximately \$110,000 based on new leases.
- Research Campus outside space is expected to increase by \$25,000 and office rental is expected to increase by \$50,000. Of note, is that HATCH will now begin paying rent for Hale Kaa with the receipt of EDA 2<sup>nd</sup> aquaculture grant funds. We are essentially at full occupancy in the Research Campus.
- Federal/UH/Special projects is lower by \$1.5M as insurance proceeds HNEI and HHFDC funds were non-recurring. Of note is the \$190,000 from EDA for the 2<sup>nd</sup> aquaculture grant. New revenue from DOE for the Desalination demonstration project is estimated at \$25,000 in FY2022.
- Miscellaneous income is up by 20 percent or \$65,000 with the anticipated revenue from Cyanotech for the sale of the desalinated water. BOM debt service is anticipated at \$250,000.

#### **FY2022 Proposed Expenditures:**

- Projected total expenses for the FY2021 are \$5.7M and are proposed to decrease to by seven percent or \$400,000 in FY2022.
- Proposed expenditures of \$5.33M in FY2022 is \$130,000 higher than projected revenue of \$5.2M.
- However, it is important to note that expenditures for the HHFDC and HNEI energy plan totaling approximately \$300,000 were received last year and included in our Special Fund balance of \$970,000 but will be paid for this fiscal year. In addition, the \$970,000 balance included the \$250,000 insurance proceeds being used as a reserve. As such, we anticipate a Special Fund balance of approximately \$570,000 at this time next year which is comparable “apples to apples” as explained earlier regarding our current Special Fund balance of approximately \$420,000 when taking out the three \$550,000 items listed above. This results of an increase of approximately \$150,000 in our Special Fund balance.
- Seventeen new non-recurring projects totaling \$470,000.
- A significant portion of NELHA annual expenditures are recurring day-to-day expenditures and have been generally increased by an inflation factor of one to four percent. Personnel costs which are projected to increase by three percent based on vacancies and new hires last year.

NELHA – July 20, 2021

PREFERRED MASTER PLAN

- New site entry and road along sea water easement.
- New secondary site access road (graded gravel) to service laboratory and tankage activities.
- Existing tenant, Royal Hawaiian Sea Farm (RHSF), new access via proposed Phase 2 parking lot.
- Connect existing campus and proposed campus with pedestrian/bike pathway and courtyards.
- Vista axis from Makako Bay Road to Ocean, interlinking buildings' breezeways, courtyards, and archaeological site. Screened along Makako Bay Road.
- Phase 2 development near Makako Bay Road to minimize utilities lengths and grading extents.
- Phase 2A development at vacated tenant site and makai area.
- Single story, bar-form buildings, sited to capture natural ventilation and daylighting.

LEGEND

- 03

PHASE 2
- 01

SITE ENTRY /ROAD
- 02

SERVICE ROAD
- 03

PARKING
- 03

BOAT PARKING
- 05

SURFBOARD RACK/STORAGE
- 08

LOADING
- 03

AQUACULTURE TANKAGE
- 08

PAVILION WORK AREA
- 08

PEDESTRIAN PATH
- 10

COURTYARD
- B

OPEN AIR BREEZEWAY
- 03

PHASE 2 LIMITS
- PERIMETER FENCE & GATE

PHASE 2A

- 11

PARKING
- 12

LOADING
- 13

COVERED STORAGE
- 14

WET LAB (TEA HOUSE)
- 15

PAVILION WORK AREA
- 16

AQUACULTURE TANKAGE
- 17

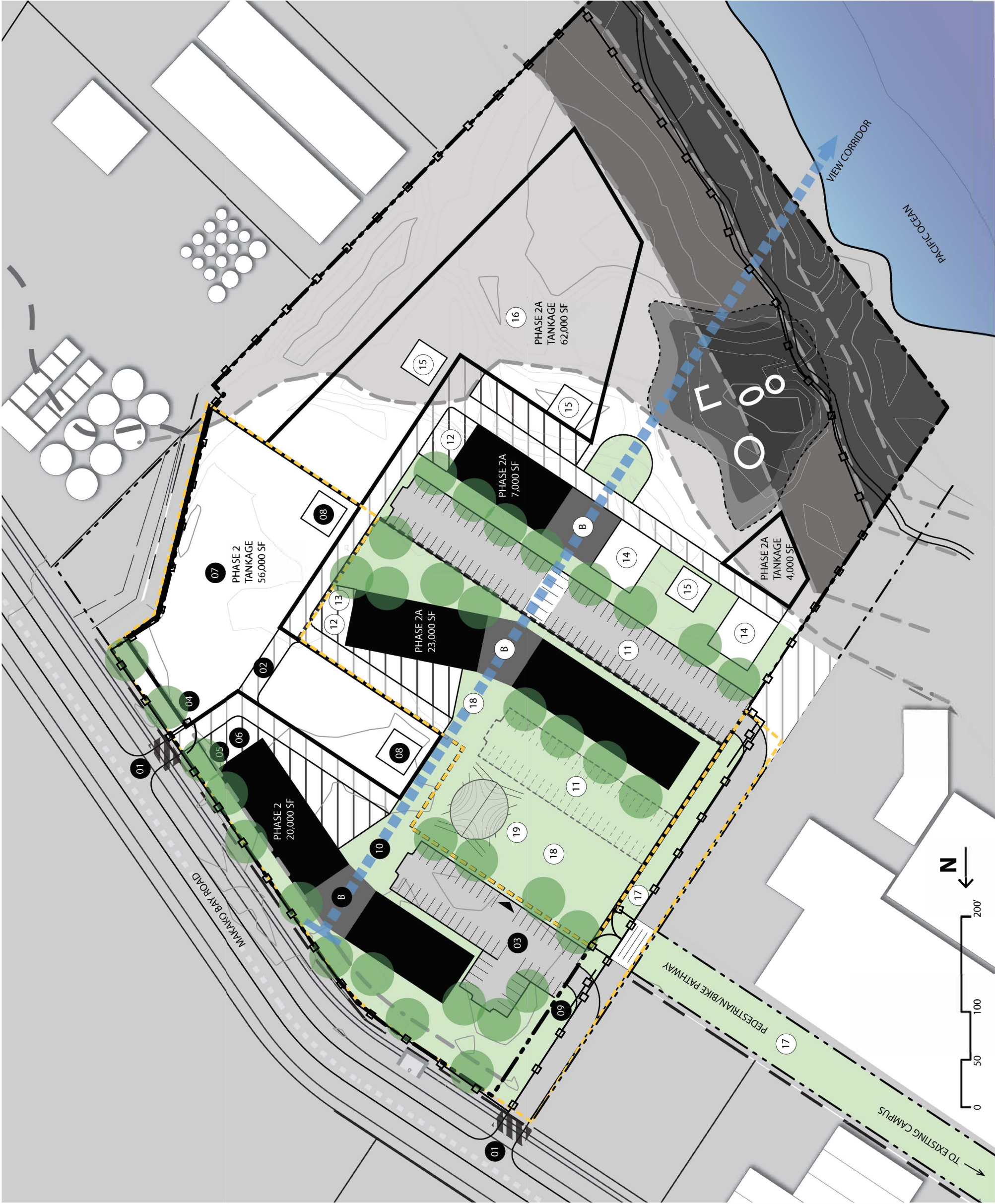
PEDESTRIAN PATH
- 18

COURTYARD
- 19

SHADE STRUCTURE
- B

OPEN AIR BREEZEWAY

TANKAGE	
PHASE 2:	56,000 SF
PHASE 2A:	66,000 SF
TOTAL:	122,00 SF
PARKING	
PHASE 2:	50 STALLS
PHASE 2A:	88 STALLS + 46 (ALT)
TOTAL:	138 STALLS + 46 (ALT)





NELHA MAJOR GOALS AND KEY PROJECTS TIMELINE SUMMARY  
FISCAL YEAR 2022

MAJOR GOALS AND KEY PROJECTS			STATUS	2021							2022					
					JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Seawater System	MAINTAIN 99.99% UPTIME AND INCREASE EFFICIENCY OF SEAWATER SYSTEM	ONGOING														
	SURVEY OF OFFSHORE DEEP WATER PIPE	ONGOING														
	PLANNING/DESIGN OF OFFSHORE DEEP WATER PIPE REMOVAL	ONGOING														
	SCADA SYSTEM DEVELOPMENT INCL UPGRADE INSTRUMENTS IN WQL	ONGOING														
Advanced Energy Projects	LONG TERM PLAN FOR RENEWABLE ENERGY UPGRADES TO HOST PARK (HNEI)	ONGOING														
	REGIONAL SWAC PLANNING/DESIGN	ONGOING														
	DOE SUNSHOT SOLAR DESALINATION PROJECT	ONGOING														
	DEVELOP RENEWABLE ENERGY AND STORAGE TESTBED FOR ESS AND MICROGRIDS	ONGOING														
Aquaculture POC	MANAGE AQUACULTURE ACCELERATOR OPERATIONS CONTRACT	ONGOING														
	MANAGE NEW EDA GRANT FOR AQUACULTURE ACCELERATOR	NEW														
	MANAGE AQUACULTURE VENTURE FUND DEVELOPMENT	ONGOING														
Development - Build Out	ENVIRONMENTAL PLANNING AND DESIGN FOR NEW VISITOR CENTER	ONGOING														
	ENVIRONMENTAL PLANNING AND DESIGN FOR INNOVATION VILLAGE	ONGOING														
	POTABLE WATER SUPPLY - EXPLORATORY PHASE	ONGOING														
	COMPREHENSIVE OFFSHORE EIS	ONGOING														
Administration																
	NEW LEASE PROSPECTS FOR UNDER UTILIZED ASSETS TO INCREASE REVENUE	ONGOING														
	CONTINUE TO IMPROVE LANDLORD/TENANT RELATIONSHIPS/SATISFACTION SURVEY	ONGOING														
	WORK WITH DBEDT ECONOMIC INNOVATION TEAM REGARDING SUSTAINABLE ECONOMY	ONGOING														
	UPDATE MASTER PLAN	ONGOING														
	ANNUAL REPORTS	ONGOING														
	2022 LEGISLATURE	ONGOING														
	GLOBAL PANDEMIC	ONGOING														