Natural Energy Laboratory of Hawaii Authority
Fiscal 2006 – 2007
Annual Report

CHAIRMAN'S AND CHIEF EXECUTIVE OFFICER'S WELCOME LETTER

To the People of Hawai'i:

NELHA was established by 227-D HRS in 1974 with the purpose…"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." This task continues today, more than 30 years later, and has resulted in 40 companies currently located at NELHA, employing almost 250 people, producing some of the highest value products exported from Hawaii.

Twenty percent of NELHA's earned revenues are paid to the Office of Hawaiian Affairs. Another 5.0211% are paid to DBEDT and DAGS for administrative purposes. NELHA receives no general funds to support its operations and must operate as if it is a profit-making private company covering its own expenses. Our diligent implementation of strict cost containment measures and justified increases in our prices for services rendered tenants has enabled NELHA just this year to reach a point of self-sustainability.

NELHA now is positioned to move forward in its effort to benefit all the people of the state of Hawai'i.

There are only three things human beings really need: food, energy, healthcare.

NELHA is the crucible from which all three can be created for all mankind's future benefit.

- Tenants already produce food – lots of it – everything from black cod to abalone and Kona Kampachi to drinking water. We added two new aquaculture tenants during fiscal 2007 and are working with several companies interested in starting farming operations here in fiscal 2008.

  NELHA solicited support from the Office of the Governor in late 2006 for a subsidy for the cost of electricity to help aquacultural tenants adjust to the high price of electricity, which accounts for the majority of seawater production costs. The Legislature passed a $365,000 per annum subsidy for two years as a result of this NELHA effort. This effectively reduced tenants' cost of seawater at July 1, 2007 to about $0.1550/thousand gallons from $0.2062 per thousand gallons.

  Increases in the price of oil used to produce electricity are, however, absorbing this subsidy and negating its beneficial attributes to aquaculture tenants.

- We are diligently working toward proposals to make NELHA not only energy self-sufficient but to produce our own energy and demonstrate new energy technologies using the unique conditions that exist at NELHA. For example, we shortly will issue RFPs for a 1 megawatt Ocean Thermal Energy Conversion plant which is a scale-up to all the years of research and development previously accomplished at NELHA.

We also will be issuing an RFP for a 5 megawatt photovoltaic array to produce electricity. It is anticipated that these developments, when operational, will put a lid on NELHA's electricity costs for a generation or so, thus preserving especially the aquacultural tenants' ability to compete in a global environment as well as demonstrate Hawai'i's ability to generate electricity without using fossil fuels.

These projects, which we plan to fund through public/private partnerships, will demonstrate to Hawai'i that it *can* do projects of large scale alternative energy natures to reduce its dependence on foreign fossil fuels as will as contribute to a reduction in greenhouse gas emissions.

We currently have three tenants at NELHA working on alternative energy projects ranging from bio-fuels from algae to solar thermal electricity production and solar concentration research. Several more parties are in discussion with NELHA for energy-based projects.

Toward making NELHA less reliant on grid energy and further its efforts toward helping develop natural energy sources that are not polluting for Hawaii, NELHA intends to develop a "Green Zone" concept to be fully implemented by 2012. This will involve green energy production for NELHA's needs and hopefully tenant needs.

NELHA and its tenants are being crucified upon a cross of electricity, to paraphrase William Jennings Bryan in the 1890s when the price of silver was decoupled from the price of gold. Electricity in Hawaii, generated largely by oil, has risen at this writing more than 10% from a year ago. With oil at $97.00 per barrel at this writing from about $70.00 per barrel a year ago, we do not believe NELHA and its tenants have begun to feel the full impact of this 38% jump in fuel costs. *For the benefit of aquaculture tenants in particular, it is imperative that energy costs at NELHA be capped as quickly as is feasible and possible.*

The crisis in energy is sufficiently serious that NELHA advocates the adoption of a "Manhattan Project" type of approach….assemble the team, issue the RFPs and contracts, get the energy production projects built. Concomitantly, provisions need to be that will allow the distribution of power to tenants without the need of the power being "wheeled" through the electrical grid. These provisions will need to be codified by acts of the Legislature or administrative rulings by the Public Utilities Commission.

- Healthcare is, however, the most significant item NELHA can produce for mankind's future benefit --- and the possibilities that exist at NELHA for that purpose have not even been touched.

We know the tropical rainforests have yielded new medicines for the benefit of mankind. There have also been discoveries in those locales of flora and fauna that can be used in products, other than medicines, that mankind needs. We know that the geothermal pools at Yellowstone National Park have yielded new varieties and species of plants and animals – bacteria – that have enabled great scientific advances, such as *Thermus aquaticus* -- a key ingredient making fluoroscopic polymerase chain reaction work. PCR is the process by which much medical diagnostic and discovery work is accomplished today and is the foundation of a $300 million industry.

Other discoveries have included organisms that convert light to energy, a virus that lives in thermophiles of a lineage that may be 3.5 billion years old, and others. Such discoveries hold great promise for mankind and its future, especially as they relate to energy and healthcare. NELHA, having the lease expensive and most accessible access to discovering such organisms, should become a world leader in this type of research.

The deep water produced at NELHA has been definitively dated to be more than 1,000 years old. The organic compounds in the water are preliminarily dated to be between 4,000 and 6,000 years old. The water originates in the Iceland – Greenland area, sinks to the bottom of the Atlantic Ocean, traverses the globe at the bottom of the sea for that thousand or so years, and finally hits the Kona coast, where NELHA's pipes intercept it.

Some scientists are of the opinion that, below 3,000 feet, less than one-half of all the plants and animals living there are unknown to mankind. We can expect that statement to be true, because diving down 3,000 feet is both difficult for scientists to perform and expensive. NELHA has the world's only capability to deliver such water on the surface, 24/7, and in vast quantities. The potentiality for discoveries of flora and fauna that will benefit mankind, from NELHA's existing infrastructure built at State expense, is awesome. Many of these are vastly different from our own oxygen-based life forms and chemistry, environment, and metabolisms; yet hold the potential for social benefits. Several years ago, a sponge from the mid-depths of the Pacific was discovered to have exciting possibilities to cure pancreatic cancer, for example.

We have initiated a new Master Planning study, designed to help direct NELHA for the next decade or so in terms of what types of tenants should be located at NELHA, what type of products they manufacture, and the highest and best uses of the remaining undeveloped land. Group 70 of Honolulu was the successful bidder for this contract and we expect the process to be completed during fiscal 2008.

With funding released June 26, 2007, we have begun the planning and design process for a road that possibly will directly connect NELHA to the Kona International Airport. Since we have started this effort, the developer to the south of NELHA has indicated on numerous occasions its desire to funnel traffic through NELHA, keeping it off Queen Ka'ahumanu Highway. The Department of Transportation also has indicated its desire to have frontage roads along each side of Queen Ka'ahumanu Highway, allowing traffic on it to more smoothly flow. This possible use of NELHA property for transportation purposes is a matter that will be closely studied; as it could have serious and detrimental effects on future development of NELHA lands, almost all of which that are undeveloped abut the Queen Ka'ahumanu Highway.

Other Capital Improvement Projects underway as a result of funding appropriated by the Legislature include new and additional Comprehensive Environmental Monitoring wells, an upgrade of the 55" pipeline's delivery capacity, and a rebuild of a fresh water line connection.

We want to close this message by acknowledging the more than 7 years of volunteer service rendered NELHA by Richard Henderson (retired Senator), including his three years as Chairman of the Board. His guidance, wisdom, and astute counsel have served to propel NELHA toward improved self-reliance, a more firm operating foundation, and a solid direction for the future. NELHA will always be indebted to Richard for his untiring efforts on its behalf. Richard is now Vice-Chairman of the NELHA Board until his term expires at the end of this fiscal year. We shall appreciate his continued advice and expertise long after his official duties are ended.

Best regards,

John DeLong
Chairman

Ron Baird
Chief Executive Officer

NELHA fiscal 2006 – 2007 YEAR END REVIEW

1. Instituted the first-ever general lease rate increase in NELHA history:
   - resulting in land lease rates that approximate fair market value for the land,
   - a three tiered system calling for leasing of extractive lands for $3,000/acre-month, energy projects $1,250 to $1,500/acre-month, and agricultural at $500/acre-month.
   - This significant action materially enhanced NELHA's probability of improved self-reliance as previous rates.

2. Responding further to the call for increased self-reliance:
   - Increased the price at which seawater is delivered to agriculture from $0.144/000 gallons at the end of fiscal 2005-2006 to $0.1728/000 gallons by the end of fiscal 2006-2007.
   - Extractive users' rate was set at $0.60/000 gallons.

3. More accurate tracking of seawater delivery costs were initiated, enabling NELHA to more quickly match price increases of its electricity consumption with the price at which seawater is delivered

4. Experienced two major earthquakes in October, 2006, which resulted in one deep seawater pipeline being totally severed and rendered out-of-use and another severely damaged. The severely damaged 40" pipeline, thanks to NELHA operating staff's creative efforts, has been temporarily restored to service, thus preserving the ability to deliver DSW to aquacultural tenants. An RFP to repair the pipelines was cancelled during fiscal 2007-2008 by administrative action. This RFP currently is being in the process of being re-solicited.

5. Recruited four alternative energy projects to be located at NELHA:
   - Cellana LLC (bio-fuels such as jet and diesel from algae),
   - Keahole Solar Power LLC (solar thermal electricity production),
   - Hawaii Natural Energy Institute (hydrogen research), and the
   - Hawaii Economic Opportunity Development Council (solar concentrator demonstration).

6. Began preparation of two major alternative energy project RFPs: a 5 megawatt photovoltaic array and a 1 megawatt OTEC scale-up plant. These are significant projects as they will be privately funded and using the natural resources at NELHA. The solar and OTEC projects, if successfully implemented through the RFP process, will represent unique public/private partnerships with the state sharing in the revenues and intellectual property that they create.

7. Obtained the release of $1.3 million in Capital Improvement Funds for significant projects benefiting the future of NELHA:
   - Airport connector road planning and design funds
   - Planning and design funds for expansion of the 55" pipeline system
   - Construction funds for modernizing and increasing water quality environmental monitoring program

- Construction funds to complete the important potable water distribution system and enable its eventual transfer and operation to the Department of Water Supply
- Implementation of the first new Master Plan at NELHA since the early 1990s or late 1980s.

8. Successfully completed rebuilding of the Keahole Point Main Pump Station cover, preserving its operating integrity.

9. Obtained an appropriation from the Legislature for $5.25 million to enable construction of the 55" pipeline pumping and distribution expansion once the planning and design phase is completed.

10. Recruited and leased a total of 15 acres to two new aquaculture tenants.

11. Completed the first-ever reorganization of the Water Quality Laboratory:
    - Involving the recruitment and employment of the first laboratory manager in four years,
    - Evaluation of the laboratory's staffing needs, and
    - Elimination of redundant positions.

12. Proposed the first re-organization of NELHA since 1991, taking cognizance of today's NELHA role versus that implemented by the 1991 organization, which was research and development oriented rather than operational oriented.

NELHA TENANTS

Aquaculture Tenants

Utilize NELHA's unique resources: natural seawater at different temperatures (cold deep seawater and warm surface water), winterless climate and low rainfall, to create optimum growing conditions for a wide range of marine organisms.

Big Island Abalone Corporation

BIAC operates a 10-acre aquafarm (one of the largest in the world) to serve the market for premium live abalone. The aquafarm currently produces 70 tons of live abalone per year. BIAC produces Kona Coast Abalone, a premium stock of Ezo (Japanese Northern) abalone. Kona Coast Abalone shipped live to markets in Japan, mainland USA, Hawaii, and soon to Hong-Kong and Korea. BIAC facilities include a hatchery, a nursery and abalone grow-out tanks. The product size ranges from 80 grams average (medium size) to 100 grams (large size). Location at NELHA provides a near-perfect environment for growing Kona-Coast Abalone.

Cyanotech Corporation

Cyanotech produces high-value microalgae-based products including nutraceuticals, pharmaceuticals, astaxanthin based NatuRose for the world aquaculture animal feed industry, BioAstin – a powerful antioxidant for human consumption, Spirulina Pacifica – a nutrient-rich dietary supplement, and phycobiliproteins-fluorescent pigments for the medical immunological diagnostics market. Cyanotech produces these products from microalgae grown at its 90-acre facility and distributes them to nutritional, supplement, nutraceutical, cosmeceutical, and animal feed makers and markets in more than 40 countries world wide.

High Health Aquaculture, INC

High Health Aquaculture develops and supplies certified pathogen-free broodstock to the global marine shrimp markets. HHA maintains SPF stock of all 4 major domesticated shrimp species.

Indo-Pacific Sea Farms

Indo-Pacific Sea Farms develops innovative technologies for the sustainable production of coral reef fish, plants and invertebrates. Indo-Pacific Sea farms has been operational at NELHA since 1994. Company's current products include certified captive-bread marine organisms for the saltwater aquarium industry, marine invertebrates, ornamental marine plants, algae feeds, live plankton, live rock and sand, and biologically active filter media.

Kona Bay Marine Resources, INC
Kona Bay Marine Resources is a commercial farm using a unique land-based method of symbiotic co-production of SPF shrimp broodstock and clam seed. The company ships their product globally and specializes in shipping throughout Asia.

Kona Blue Water Farms
Kona Blue Water Farms is the first integrated hatchery and offshore fish farm in the country for various valuable food fish species, including kampachi, mahi-mahi, and giant groupers. Kona Blue premiere achievement is Kona Kampachi, a premium sushi-grade Hawaiian yellowtail species. The company raises Kona Kampachi without depleting wild fish stock. The fish is grown in open ocean pens half a mile off the Kona coast that provides the fish with healthy clean environment to grow with no negligible impact on environment.

Kona Cold Lobsters, LTD
Kona Cold Lobsters imports live lobsters and crabs from natural Atlantic fisheries and rejuvenates them in cold deep seawater holding pens for distribution throughout Hawaii and select Asian and Pacific destinations.

Kona Coast Shellfish, LLC
Kona Coast Shellfish LLC (KCS) began the construction phase of their Shellfish Hatchery/Nursery operations in January of 2007. They became operational by May of 2007 with sales of shellfish larvae and seed to West Coast customers. Current production includes Pacific oyster larvae and Pacific oyster seed and Manila clam seed. KCS currently employs 8 people and further expansion of operations continues. They anticipate the production levels to increase in 2008 as the worldwide demand for shellfish larvae and seed continues to grow.

MERA Pharmaceuticals, INC
Mera Pharmaceuticals develops cost–effective, cutting edge photobioreactors for the industrial cultivation of microalgae for new microalgal products. Currently marketing astaxanthin-based products, the AstaFactor a human nutraceutical with powerful antioxidant properties and AquaXan, a natural pigment for shrimp and salmon feed.

Moana Technologies, INC
Moana Technologies is partnered with multinational group of established companies from the aquaculture industry together having the expertise to meet the challenges of shrimp farming in the 21st century and bring it to new levels of productivity. Through advanced R&D, Moana Technologies is developing nutritional and health solutions that will benefit the world's shrimp aquaculture industry.

Ocean Rider, INC
Ocean Rider using captive aquaculture techniques continues to produce over 20 species of seahorses and accessories for the world aquarium pet market. Seahorses are threatened in their natural habitats by overfishing around the world, so development of such techniques is the key to

their survival. Ocean Rider also offers interactive educational seahorse tours for the general public.

Pacific Planktonics

Pacific Planktonics specializes in innovation, with a goal to develop methods to culture ornamental marine fish and shrimp for scale-up to commercial production, including optimization of larval live first feeds and growout for native Hawaiian species. Some of the species grown by Pacific Planktonics include reef fish, cleaner shrimp larvae, harlequin shrimp and wild plankton.

Royal Hawaiian Seafarms, INC

Royal Hawaiian Seafarms commercially produces *ogo* (edible sea vegetables) with sales of over two ton per week. The company also produces salt water tilapia and milkfish, and is investigating commercial production of edible sea cucumbers, *opihi* (Hawaiian limpets) and warm water abalone and marine fin-fish.

Taylor Shellfish

Taylor Shellfish is headquartered in Washington state, is one of the largest U.S. clam and oyster producers. The company maintains a nursery at NELHA where juvenile mollusks take a "winterless Hawaiian growout vacation" during critical early growth periods. Up to 400 million juvenile Manila clams and 10 million juvenile Pacific oysters are exported year round back to Washington for final growout or sold as seed stock to other growers.

Unlimited Aquaculture, LLC

Unlimited Aquaculture (UA), recently purchased by Troutlodge, will continue to grow Atlantic halibut and sablefish acquired through the purchase of the company from the previous owners in August of 2007. Utilizing the cold deep seawater and surface seawater to provide optimal temperatures to reach maximum growth for harvesting allows UA to decrease the average grow out time required for these cold water species. Unlimited Aquaculture will continue to receive

sable fish fingerlings from the supplier, as well as begin conducting our own larval rearing trials with sablefish for the development of hatchery technology here at NELHA as well as maintain broodstock fish to determine optimal nutrition for egg production. Fish sales of Atlantic halibut continue, providing 200-400 lbs. of fresh fish per month. Marketing development of sablefish will begin by the end of 2007 as we fish reach harvest size.

Uwajima Fisheries

Uwajima Fisheries produces superior quality *hirame*, a Japansese coldwater flounder highly prized for Hawaii's sashimi and sushi markets. The company also produces *ogo, moi*, and milkfish (also known as *awa*) for local markets.

Water bottling Tenants

Utilize the natural and abundant resource of the pristine, pathogen free 3000' deep ocean water accessed from NELHA.

Deep Sea Water International, INC

Deep Seawater International, Inc. produces desalinated bottled water "KONA DEEP" for domestic and global markets.

Enzamin USA, INC

Enzamin USA is using new applications of deep seawater to enhance a successful Japanese nutraceutical product line based on *Bacillus natto* and produce bottled water and mineral salts from the deep seawater resource for commercial sales to Asian markets.

Hawaii Deep Marine, INC

Hawaii Deep Marine is developing deep seawater based products for export. Desalinated seawater, salt and brine (*nigari*) and being developed for commercial sales to Asian markets.

KOYO USA

KOYO was the first tenant at NELHA to produce purified deep seawater-based drinking water starting in 2003. KOYO also the first tenant licensed to use a new trademarked NELHA logo to certify the source of 100% deep seawater. From its present site of 30 acres, KOYO produces a bottled water product "*Mahalo*," which consists of purified 100% Hawaii deep seawater, exported on a weekly basis to domestic and Japanese markets.

Savers Holdings LTD

Savers Holdings is still in developing stages to produce desalinated water for bottling and export to eh Asian markets including Korea and Japan.

Research, Education and Community Service Tenants:

HR Biopetroleum, INC

HR Biopetroleum is a University of Hawaii, School of Ocean and Earth Science and Technology based company. One of the long term objectives of HR Biopetroleum is to provide the underlying scientific research that will enable commercial production of biofuels from photosynthetic microbes. This company is still in developing sate.

Hawaiian Islands Humpback whale National Marine Sanctuary

Hawaiian Islands Humpback whale National Marine Sanctuary is responsible for general public education, outreach, research and monitoring of Big Island marine resources. This has included monitoring the Hawaiian Monk seal population on the island, assisting local research groups in

efforts to learn more about the humpback whale and their habitat and participating in marine conservation and education on the Big Island through a variety of outreach projects.

University of Hawaii Infrasound Laboratory (ISLA)

ISLA maintains an array of acoustic sensors to monitor the Pacific region for atmospheric infrasound signals to support the international Comprehensive Nuclear Test Ban Treaty as well as to gather signal evidence of Global geophysical and meteorological events.

University of Hawaii Sea grant Extension Service

Supports long term economic development, stewardship, and responsible use of Hawaii's marine and coastal resources, working closely with NELHA and its tenants to improve the effectiveness of community outreach and education.

West Hawaii Explorations Academy – Public Charter School

West Hawaii Explorations Academy is a public charter school, offers innovative full-immersion learning for secondary students based on student-run projects. WHEA won the Intel 2005 Schools of Distinction Science Award in Competition with over 3,000 high schools nationwide.

Gateway Tenants:

Friends of NELHA

Friends of NELHA is a non-profit group operating a program that provides outreach to support NELHA. Trained community volunteers make presentation to interested visitors at the Gateway Center.

Hawaii County Economic Development Board

HCEDB promotes renewable energy, a state-of-the-art 2.5 kw concentrator photovoltaic demonstration model developed by SolFocus of Palo Alto Research Center, that has been assembled and installed at NELHA. Also a small cottage has been erected with household appliances to demonstrate the effectiveness of the photovoltaic model. The photovoltaic cells of this model have been rated at 30% efficiency. In the future, HCEOC intends to develop other renewable energy devices and fabricate demonstration models to be on public display at the Hawaii Gateway Energy Center.

Hawaii Island Economic Development Board

HIEDB is a private non-for-profit corporation that provides valuable information and contacts for area businesses and industries as well as key liaison to federal, state, county and private sector resources in financing, business planning, permitting, legal advice and other business services. HIEDB is a networking business organization that specializes in facilitating federal resource programs and implementation of economic development projects.

Hawaii Natural Energy Institute

Hawaii Natural Energy Institute has a long term objective to establish the Hawaiian Hydrogen Power Park at the Gateway Center. Their goal is to develop a state-of-the-art facility that will

have capabilities to support ongoing hydrogen and DER system test and demonstration projects. This project is still under development stages.

Sopogy, INC

Sopogy plans to construct and operate a one megawatt concentrating solar power electricity generating plant at the Gateway Center. This power plant will consist of approximately 3,650 parabolic through solar collectors, thermal storage and expansion tanks, a cooling tower, and one or more Organic Rankine Cycle power blocks. The clean, renewable electricity generated from this solar power plant will be sold to either a commercial customer or to the local utility company.

Tenants Coming to NELHA:

Global Abalone

Global Abalone plans to develop, demonstrate and commercialize devices and systems that the company believes will revolutionize abalone aquaculture.

Kona-Halo

Kona-Halo plans to manufacture brine, mineral essences and salt from deep-sea water.

NoriTech

NoriTech plans to establish a site for cultivation of porphyra. The red seaweed porphyra, commonly known as nori, is widely recognized in the food industry as the sushi wrap. It is rich in protein, fiber, and minerals and is an ideal candidate to be used as an ingredient in the growing nutraceutical market.

West Virginia University Research Corporation

Research about the carbon cycle and how the oceans naturally store carbon as dissolved organic matter.

CEROS
The National Defense Center of Excellence for Research in Ocean Sciences

CEROS, administratively attached to NELHA, solicits and supports innovative technologies for national maritime military applications and sustained technology-based economic development in Hawai'i.

CEROS continues to receive annual Department of Defense appropriations funding through the Defense Advanced Research Projects Agency (DARPA). In FY06, CEROS received $6,155,000 and supported 17 projects. In FY07, CEROS received $5,505,000, the projects have yet to be determine.

1. BACKGROUND: The CEROS Program was created under an initial grant provided by DARPA in 1993 and has continued to receive annual defense appropriations funding. CEROS seeks to advance innovative concepts and new approaches to technology while fully leveraging existing facilities and infrastructure in Hawaii and demonstrating beneficial commercial utility for the Department of Defense. Since 1993, the CEROS research programs have funded a total of 206 projects at a value of over $77 million.
2. MISSION:
   a. Support the Department of Defense technology requirements;
   b. Encourage leading edge R&D in ocean sciences and technology in Hawaii;
   c. Foster use of ocean R&D facilities in Hawaii;
   d. Provide an interface between specialized small businesses with expertise in ocean related R&D and DoD users of advanced technology; and
   e. Develop avenues to ocean science expertise and facilities at the University of Hawaii
3. BUSINESS MODEL: CEROS solicits proposals through annual competitive solicitations. All proposals are evaluated by an expert panel for technical merit, innovation, and value according to criteria published in the solicitations. The CEROS Research Advisory Board determines the best proposals based on critical evaluations.
4. PRIORITIES: Five technical topic areas are identified in the legislation that originally funded CEROS
   a. Ocean Environmental Preservation
   b. Shallow Water Surveillance Technologies
   c. New Ocean Platform and Ship Concepts
   d. Ocean Measurement Instrumentation
   e. Unique Properties of the Deep Ocean Environment

PROJECT TOPIC AREA	PROJECTS	FUNDING
Shallow Water Surveillance Technologies	80	$36,441,111
Ocean Environment Preservation	29	$12,368,705

New Ocean Platform & Ship Concepts	31	$11,431,231
Ocean Instruments & Engineering Tools	54	$13,457,356
Unique Properties of the Deep Ocean Environment	12	$3,978,693
Total	**206**	**$77,677,096**

5. PRODUCTS:

   a. LONG TERM SUMMARY: Since 1993, the CEROS program has supported a variety of advanced ocean technology development projects. These projects have produced tangible results and products for the Department of Defense (DoD), unique advanced capabilities, commercial products, and potential breakthrough products for future development. Twenty patents and seventy-two technical publications have resulted directly from CEROS-supported projects. The program has also helped create and sustain technical development and jobs in Hawaii.

Grant / Agreement Term	Federal Funding Year	Federal Funding Amount	CEROS Projects Funded ($)	CEROS Projects Funded (#)
MDA972-93-1-0008 Feb 22, 1993 - Jun 30, 1998	FY93	$5,070,000	$4,496,887	11
MDA972-94-1-0010 May 23, 1994 - Jun 30, 1999	FY94 FY95 FY96	$5,449,974 $6,753,822 $6,534,000	$5,939,919 $5,634,768 $5,445,811	16 11 12
MDA972-97-2-0001 Sep 1, 1997 - Jun 30, 2003	FY97 FY98 FY99 FY00 FY01	$6,518,000 $6,714,917 $6,785,759 $6,788,888 $4,900,000	$5,779,261 $6,347,637 $6,201,191 $6,441,440 $4,524,611	16 19 15 16 14
MDA972-02-2-0002 May 15, 2002 - Dec 30, 2007	FY02 FY03 FY04 FY05 FY06	$4,668,500 $5,623,500 $6,905,000 $6,905,000 $6,155,000	$4,055,811 $4,898,907 $6,247,373 $6,119,918 $5,543,562	10 15 19 17 17
HR0011-07-2-0005 Apr 1, 2007 - Sep 30, 2008	FY07	$5,505,000	TBD	TBD
	Total	**$91,277,360**	**$77,677,096**	**206**

CEROS is a State program entirely supported by federal funds. The program started in 1993, with a $5 million Department of Defense appropriation. Federal support for CEROS comes to the State through a Cooperative Agreement with the Defense Advanced Research Projects Agency (DARPA), the principal technology development agency for the Department of Defense. DARPA provides technical and administrative guidance to assure that the program remains responsive to the needs of the federal defense establishment while helping the technical commercial base develop in Hawai'i. Since 1993, CEROS has provided advanced technology to SUBPAC, PACFLT and SOCOM and supported creation of over 130 technology-based jobs in Hawai'i.

From the start, DARPA sought an efficient CEROS organization to turn the federal funds, which are appropriated annually, into funded contracts in as short a period as possible. Thus, CEROS runs annual competitive solicitations for technical projects and handles the entire process from initial announcement (in October) to contract negotiation and commitment (usually in the following June). Since 1993, CEROS has funded 206 technical projects for about $77,677,096.

The CEROS program operates on less than 8% administrative overhead (i.e. 92% of the federal funds go into the Core technical program). The CEROS personnel list is 5: Technical Director, Fiscal Assistant, Program Manager for Outreach and Administration, Contracts and Grants Administrator and Research Administrator. CEROS maintains a Projects Office at NELHA headquarters in Kailua-Kona and a Contracts Office in Honolulu.

CEROS point of contact: Jacquie Brewbaker, Program Manager for Outreach & Administration, jacquieb@ceros.org. For more information about CEROS, please consult, www.ceros.org.

NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY

FINANCIAL REVIEW

STATEMENT OF OPERATIONS

(For the period July 1, 2006 to June 30, 2007)

REVENUES

General Funds	$0.00
State Funds	$0.00
Subtotal	$0.00
Special Funds (Revenue)	
Land Use Fees	$1,067,595.82
Royalties	$187,044.35
Reimbursables	$1,891,580.72
Interest Received	$86,752.41
Percentage Rents	$106,000.57
Subtotal	$3,338,973.87
TOTAL	$3,338,973.87

EXPENDITURES

General Funds	
Salaries	$0.00
Kona Operations	$0.00
Subtotal	$0.00
Special Funds	
Salaries	$1,323,110.96
Operations (including OHA transfers)	$2,080,785.81
	$3,403,896.77
Total Expenditures	$3,403,896.77

FINANCIAL POSITION

Special Fund Cash Balance July 1, 2006	$1,227,155.00
State General Fund Appropriations	$0.00
Special Fund Revenues	$3,338,973.87
	$4,566,128.87
General Fund Expenditures	$0.00
Unrequired G/F Returned to St Treasury/DBEDT	$0.00
Special Fund Expenditures/journal entries	
Transfer to State General Fund From Special Fund	$3,172,755.52
Transfers to OHA-Ceded land	$231,141.25
Prior year adjustment	$0.00
**Ending Special Fund Cash Balance 6/30/07	$1,162,232.10

**subject to DAGS final numbers

FINANCIAL REVIEW

(CONTINUED)

BALANCE SHEET AS OF 6/30/07

ASSETS			
Current Assets			
Funding			
Special Fund Revenue	$	3,338,974	
Security Deposits Fund	$	79,372	
Total Funding	**$**	**3,418,346**	
Accounts Receivable			
Accounts Receivable	$	214,159	
Total Accounts Receivable	**$**	**214,159**	
Fixed Assets (CIP)			
Building & Machinery & other Infrastructure	$	22,467,000	
Less Depreciation	$	(22,235,226)	Life span of avg 27.5 yrs (27 yrs 0 mon depreciated)
Seawater System (18"/24", 28"/40")	$	19,945,000	
Less Depreciation	$	(19,945,000)	Life span of 15 yrs fully depreciated
Seawater System (55")	$	16,767,000	
Less Depreciation	$	(2,235,600)	Life span of 15 yrs (2 yr, 0 mon. depreciated)
Freshwater System	$	2,012,000	
Less Depreciation	$	(804,800)	Life span of 25 years (10. yrs 0 mon, depreciated)
Gateway Building	$	3,945,000	
Less Depreciation	$	(394,500)	Life span of 30 years (3. yrs 0 mon depreciated)
Land (807 acres)	$	70,000,000	Land Value at average $86,741/acre
Less land (153) ac/infrastructure/ archaeological/easements/setbacks	$	(13,271,373)	Land Value at average $86,741/acre
Total Fixed Assets	**$**	**76,249,501**	
TOTAL ASSETS	**$**	**79,882,005**	
EQUITY			
Equity			
Capital Contribution	$	79,946,928	
Net Income	$	(64,923)	
TOTAL LIABILITIES & EQUITY	**$**	**79,882,005**	

NELHA CIP

Project	Amount
Onshore Distribution system	$540,000
Freshwater Upgrade	$50,000
CEMP Wells	$312,000
NELHA Master Plan 2007	$300,000
Airport Connector Road Design ($400K State and $500K Federal funds)	$900,000
Construction of distribution system expansion	$5,250,000

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Also Research Advisory Committee Chairman

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Lee Fausak, *Research Administrator*

Jacquie Brewbaker, *Program Manager for Outreach & Administration*

Debby Hansen, *Fiscal Assistant*

Donna Mau, *Contracts & Grants Administrator*

NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY
(NELHA) At Keahole Point
73-4460 Queen Kaahumanu Hwy. #101
Kailua-Kona, Hawaii USA 96740-2637

Telephone: (808) 329-7341
Fax: (808) 326-3262
E-mail: nelha@nelha.org
Website: http://www.nelha.org