

**Department of Commerce and Consumer Affairs**

**CERTIFICATE OF GOOD STANDING**

I, the undersigned Director of Commerce and Consumer Affairs of the State of Hawaii, do hereby certify that according to the records of this Department,

**MAUI PHOENIX FARMS LLC**

was organized under the laws of the State of Hawaii on 03/27/2023 ; that it is an existing limited liability company in good standing and is duly authorized to transact business.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the Department of Commerce and Consumer Affairs, at Honolulu, Hawaii.

Dated: January 03, 2024

Director of Commerce and Consumer Affairs



Applicant Maui Phoenix Farms LLC

### Application Submittal Checklist

The following items are required for submittal of the grant application. Please verify and check off that the items have been included in the application packet.

- 1) Hawaii Compliance Express Certificate (If the Applicant is an Organization)
- 2) Declaration Statement
- 3) Verify that grant shall be used for a public purpose
- 4) Background and Summary
- 5) Service Summary and Outcomes
- 6) Budget
  - a) Budget request by source of funds ([Link](#))
  - b) Personnel salaries and wages ([Link](#))
  - c) Equipment and motor vehicles ([Link](#))
  - d) Capital project details ([Link](#))
  - e) Government contracts, grants, and grants in aid ([Link](#))
- 7) Experience and Capability
- 8) Personnel: Project Organization and Staffing

*John Dobovan*                      JOHN D DOBOVAN                      1/18/2024  
\_\_\_\_\_  
AUTHORIZED SIGNATURE                      PRINT NAME AND TITLE                      DATE

## I.2 Declaration Statement

Applicant is in compliance with section 42F-103 of the Hawaii Revised Statutes.

## I.3. Public Purpose

This grant will serve a public purpose in compliance with section 42F-102 of the Hawaii Revised Statutes.

## II. Background and Summary

### 1. Brief description of the applicant's background.

Maui Phoenix Farms LLC, is the next stage in what began as Kulahaven Farms LLC, Hawaii's first rainbow trout aquaponic farm. Kulahaven began in 2014 as a small-scale system design test operation and small-scale trout hatchery operating under a special import license from the Hawaii Department of Agriculture's Plant Quarantine Division. After 2 years of crop and system testing, Kulahaven constructed a commercial scale R&D system, which it operated until December of 2022. Although that system was only 1/3rd acre, it produced at least a portion of more than 200,000 meals in 2021 and again in 2022. Despite its commercial success, Kulahaven was battered by both Covid and the frequent outages of power and water that occur in Kula. With no room to expand to full scale and unable to host agritours at that site, the farm was closed following completion of its R&D work. Efforts are now underway to build a full-scale version of the proven system design at a new location in Kula, Maui that will produce up to 30,000 pounds of high-quality food per month while also serving as a public education enterprise with numerous daily tours as well as a training and support facility for new aquaponic farmers in cooperation with the UH Maui College GoFarm Program and the Hawaii Farmers Union United's Farm Apprentice Mentorship Program. The company has retained the equipment from its R&D phase, has a committed and experienced core team, an existing pool of trained interns and an existing customer base.

### 2. Goals and Objectives

Our goal is to train new farmers and then provide design and technical support as well as fingerling trout for new small aquaponic farms on Maui, each capable of producing 16,000 pounds of fish and produce per acre per month. Our ultimate intent is to increase Hawaii's food security and create new small businesses that provide good-paying high tech agricultural jobs for our community and ultimately form the basis for an entirely new agricultural industry, both on Maui and across the State.

The objective of this effort is to create the first portion of a commercial trout hatchery that can serve the aquaponic community in order to provide nutrient-dense fish and vegetables to Maui and the rest of the State.

### 3. Public Purpose

Hawai'i currently imports 6 billion dollars' worth of food annually, for both retail and commercial purposes. This includes 265 million dollars of seafood for retail consumption. Given ongoing climate threats, that cost is likely to increase as wild stocks diminish. This is both an economic and an existential threat that must be addressed. The State also has an urgent need for high quality agriculture jobs and decreased wildfire risk. Aquaponics is an efficient and

Commented [BL1]: Total for both years combined?

Commented [AS2]: This is really impressive and exciting!

One thing to address later in - are the frequent outages just particular to the previous site? If so you may wish to say that.

sustainable technology that can produce large quantities of high-value, nutrient-dense food on marginal lands with minimal water usage, without use of herbicides, pesticides or chemical fertilizers and with no effluent discharge. Prior efforts by multiple aquaponic farms in Hawaii have been based upon low-value fish species such as tilapia and catfish. Some of those farms have ceased fish production and switched from aquaponics to hydroponics because the revenues from their fish did not warrant further production. The success of Kulahaven Farms has shown that there is a substantial untapped local market for fresh rainbow trout. In addition, trout are naturally higher in heart-healthy omega-3 oils and produce more meat with less feed than either tilapia or catfish. All of these attributes make rainbow trout an attractive species for aquaponic cultivation. However, they are also technically difficult to rear in an aquaponic system and, since there is no commercial trout hatchery in Hawai'i, are only available as imported trout eggs which must be incubated and hatched. The Kulahaven R&D test demonstrated that a key obstacle to trout aquaponics is the 11-month lead time required to grow a trout egg into a market size fish. This project will initiate a commercial trout hatchery capable of delivering large quantities of fingerling trout that can be grown to market size in just 4 months by aquaponic farmers. The success of Kulahaven Farms' test operation has demonstrated that this can be done and, with the creation of a suitable hatchery operation, a large-scale partner farm operation and substantial job creation is now feasible along with the goals and objectives described in #2 above. This will enhance financial returns for small farms and encourage establishment of new family farms that can, in turn, address our pressing need for increased local production of food in general and high-quality protein in particular.

It should be noted that properly managed agricultural lands constitute a reduced fire threat as opposed to lands that are left fallow and unmanaged. In summation, local agriculture, and this project in particular, serves numerous public purposes: increased food security, an enhanced local economy, increased jobs, and a reduction of the wildfire threat.

#### **4. Target Population to be served**

The immediate population target for this project is farmers and rural residents living or working on agricultural lands in the Kula district, island of Maui and DHHL lands in particular. These populations are primarily of Hawaiian, Chinese, Portuguese and Filipino descent. As the project expands, this will include farmers in other rural areas such as West Maui, Hana, Moloka'i and other islands. The food produced through the efforts of these farmers will ultimately benefit both residential and commercial consumers across the entire State of Hawai'i.

#### **5. Geographic Coverage**

The initial area to be served will be Kula, Maui; specifically, any existing farmer who wishes to increase cash flow and/or any landowner or leaseholder of agricultural land who wishes to have a trout aquaponic system on their property. This will be particularly applicable to residents of DHHL lands in Keokea. Once operations in these areas are underway, expansion can include Hana, Central Maui and other portions of Maui. Success of this project can pave the way for additional similar operations on Molokai, Big Island, Oahu and Kauai.

### **III. Service Summary and Outcomes**

**1. Describe the scope of work, tasks and responsibilities;**

Register project and site with Plant Quarantine Division, State of Hawaii; secure license for import of eyed rainbow trout eggs. Prepare site, including grading and installation of water and power. Construct egg hatchery facility, alevin grow-out facility and fingerling grow-out facility. Install all necessary equipment, including pumps, chillers, filters, tanks etc. as needed for full functionality. Import eyed trout eggs from Mainland source, hatch eggs and rear fry to optimum size for aquaponic farming. Initial use of trout fingerlings will be at Maui Phoenix Farms LLC during test and demonstration period (2 years). This will be followed by construction of additional 'partner' farms operating under the import license of Maui Phoenix Farms LLC, utilizing their proven proprietary system design. Maui Phoenix Farms LLC will provide partner farms with design services, water quality monitoring, technical support and fingerling trout.

**2. Provide a projected annual timeline for accomplishing the results or outcomes of the service;**

Year 1: construction of hatchery complex, initiate trout egg imports and hatchery operations. Hire first technician.

Year 2: Hire 2 technicians for a total of 3 new jobs, and continue hatchery operations integrated with Maui Phoenix Farms LLC's aquaponic farming operation

Year 3 onward: build Maui Phoenix Farms LLC to full scale with up to 37 additional new hires and initiate construction of partner farms and implement delivery of fingerling trout to those new farms.

**3. Describe its quality assurance and evaluation plans for the request. Specify how the applicant plans to monitor, evaluate, and improve their results; and**

Once hatchery operations are underway water quality will be monitored daily with any fish disease reported to PQD as required under permit. Some fish deaths are inevitable but should levels rise above those anticipated, a qualified extension agent from CTAHR will be consulted and system modifications will be made as needed. The ultimate goal will be to rear the maximum quantity of trout fingerlings possible within the system with a minimum of mortalities. This will include monitoring of fish growth according to established protocols to ensure feeding is done at greatest efficiency in order to provide maximum growth rates with minimum feed waste.

**4. List the measure(s) of effectiveness that will be reported to the State agency through which grant funds are appropriated (the expending**

agency). The measure(s) will provide a standard and objective way for the State to assess the program's achievement or accomplishment. Please note that if the level of appropriation differs from the amount included in this application that the measure(s) of effectiveness will need to be updated and transmitted to the expending agency.

The simplest, and most accurate, initial measure of effectiveness is the number and weight of actual fish produced, as compared with the number of eggs purchased and percentage hatched. These reports will enable refinement of the hatchery system. As the project develops, the number of farms created along with the quantity of fish distributed to them and the quantity of fish sold, will be of primary interest.

#### **IV. Financial**

##### **Budget**

1. **The applicant shall submit a budget utilizing the enclosed budget forms as applicable, to detail the cost of the request.**

a. Budget request by source of funds

**BUDGET REQUEST BY SOURCE OF FUNDS**  
 Period: July 1, 2024 to June 30, 2025

App Maui Phoenix Farms LLC

<b>BUDGET CATEGORIES</b>	<b>Total State Funds Requested (a)</b>	<b>Total Federal Funds Requested (b)</b>	<b>Total County Funds Requested (c)</b>	<b>Total Private/Other Funds Requested (d)</b>
<b>A. PERSONNEL COST</b>				
1. Salaries	0	0	0	217,280
2. Payroll Taxes & Assessments	0	0	0	47,802
3. Fringe Benefits	0	0	0	18,060
<b>TOTAL PERSONNEL COST</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>283,142</b>
<b>B. OTHER CURRENT EXPENSES</b>				
1. Airfare, Inter-Island	0	0	0	0
2. Insurance	0	0	0	21,640
3. Lease/Rental of Equipment	0	0	0	0
4. Lease/Rental of Space	0	0	0	49,920
5. Staff Training	0	0	0	0
6. Supplies & Materials for Hatchery	160,318	0	0	4,200
7. Telecommunication	0	0	0	2,100
8. Utilities	0	0	0	23,862
9				
10				
11				
12				
13				
14				
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16				
17				
18				
19				
20				
<b>TOTAL OTHER CURRENT EXPENSES</b>	<b>160,318</b>	<b>0</b>	<b>0</b>	<b>101,722</b>
<b>C. EQUIPMENT PURCHASES</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>D. MOTOR VEHICLE PURCHASES</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>E. CAPITAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>500,000</b>
<b>TOTAL (A+B+C+D+E)</b>	<b>160,318</b>	<b>0</b>	<b>0</b>	<b>601,722</b>
<b>SOURCES OF FUNDING</b>		Budget Prepared By:		
(a) Total State Funds Requested	160,318	John Dobovan (808) 955-0955		
(b) Total Federal Funds Requested	0	Name (Please type or print) Phone		
(c) Total County Funds Requested	0	1/18/2024 Date		
(d) Total Private/Other Funds Requested	601,722	Signature of Authorized Official Date		
<b>TOTAL BUDGET</b>	<b>762,040</b>	John Dobovan, Member Name and Title (Please type or print)		



b. Personnel salaries and wages

**BUDGET JUSTIFICATION - PERSONNEL SALARIES AND WAGES**  
 Period: July 1, 2024 to June 30, 2025

Applicant: \_\_\_\_\_ Maui Phoenix Farms LLC \_\_\_\_\_

POSITION TITLE	FULL TIME EQUIVALENT	ANNUAL SALARY A	% OF TIME ALLOCATED TO GRANT REQUEST B	TOTAL STATE FUNDS REQUESTED (A x B)
CEO		\$96,080.00	5.00%	\$0.00
Production Manager		\$67,200.00	20.00%	\$0.00
Technician (2)		\$54,000.00	50.00%	\$0.00
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
<b>TOTAL:</b>				<b>0.00</b>
<b>JUSTIFICATION/COMMENTS:</b>				

c. Equipment and motor vehicles

**BUDGET JUSTIFICATION - EQUIPMENT AND MOTOR VEHICLES**

Period: July 1, 2024 to June 30, 2025

Applicant: \_\_\_\_\_ Maui Phoenix Farms LLC \_\_\_\_\_

DESCRIPTION EQUIPMENT	NO. OF ITEMS	COST PER ITEM	TOTAL COST	TOTAL BUDGETED
NONE			\$ -	0
			\$ -	
			\$ -	
			\$ -	
			\$ -	
<b>TOT</b>				0
JUSTIFICATION/COMMENTS:				

DESCRIPTION OF MOTOR VEHICLE	NO. OF VEHICLES	COST PER VEHICLE	TOTAL COST	TOTAL BUDGETED
NONE			\$ -	0
			\$ -	
			\$ -	
			\$ -	
			\$ -	
<b>TOT</b>				0
JUSTIFICATION/COMMENTS: Applicant already owns equipment and vehicles needed.				

d. Capital project details

**BUDGET JUSTIFICATION - CAPITAL PROJECT DETAILS**  
 Period: July 1, 2024 to June 30, 2025

Applicant: Maui Phoenix Farms LLC

FUNDING AMOUNT REQUESTED						
TOTAL PROJECT COST	ALL SOURCES OF FUNDS RECEIVED IN PRIOR YEARS		STATE FUNDS REQUESTED	OTHER SOURCES OF FUNDS REQUESTED	FUNDING REQUIRED IN SUCCEEDING YEARS	
	FY: 2022-2023	FY: 2023-2024	FY: 2024-2025	FY: 2024-2025	FY: 2025-2026	FY: 2026-2027
PLANS	0	0	0	50000	0	0
LAND ACQUISITION	0	0	0	0	0	0
DESIGN	0	0	0	0	0	0
CONSTRUCTION	0	0	0	15000	0	0
EQUIPMENT	0	0	0	0	0	0
<b>TOTAL:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20,000</b>	<b>0</b>	<b>0</b>
JUSTIFICATION/COMMENTS	<p>Once constructed, the trout hatchery will not require further work.                      Any additional construction or development will be done by applicant in the course of their operations.</p>					

e. Government contracts, grants, and grants in aid

**GOVERNMENT CONTRACTS, GRANTS, AND / OR GRANTS IN AID**

App: Maui Phoenix Farms LLC Contracts Total: -

	CONTRACT DESCRIPTION	EFFECTIVE DATES	AGENCY	GOVERNMENT ENTITY (U.S./State/Hawaii/ Honolulu/ Kauai/ Maui County)	CONTRACT VALUE
1	NONE				-
2					
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10

Application for Grants

**2. The applicant shall provide its anticipated quarterly funding requests for the fiscal year 2025.**

Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total Grant
\$160,318	0	0	0	\$160,318

**3. The applicant shall provide a listing of all other sources of funding that they are seeking for fiscal year 2025.**

We will be applying for SBIR Phase I and Phase II grants through both the USDA and NSF. We are also currently seeking private venture capital funding for construction of the aquaponic facilities at Maui Phoenix Farms LLC.

4. **The applicant shall provide a listing of all state and federal tax credits it has been granted within the prior three years. Additionally, the applicant shall provide a listing of all state and federal tax credits they have applied for or anticipate applying for pertaining to any capital project, if applicable.**

None as of this date.

5. **The applicant shall provide a listing of all federal, state, and county government contracts, grants, and grants in aid it has been granted within the prior three years and will be receiving for fiscal year 2025 for program funding.**

None as of this date.

6. **The applicant shall provide the balance of its unrestricted current assets as of December 31, 2023.**

None as of December 31, 2023 - this is a new enterprise.

## **V. Experience and Capability**

### **1. Necessary Skills and Experience**

**The applicant shall demonstrate that it has the necessary skills, abilities, knowledge of, and experience relating to the request. State your experience and appropriateness for providing the service proposed in this application. The applicant shall also provide a listing of verifiable experience of related projects or contracts for the most recent three years that are pertinent to the request.**

The Maui Phoenix Farms LLC team has decades of experience with rainbow trout and are the only individuals to have raised trout in an aquaponic system in Hawai'i. John Dobovan (CEO) and Aimee Greenwood (Production Manager) will recruit, hire and train staff as needed for all operations of the new enterprise, in consultation with Kevin Hopkins, PhD. Initial recruits will come from their pool of prior Kulahaven Farms interns, from the GoFarm program at UH Maui College and the Farm Apprentice Mentorship program of Hawaii Farmers Union United. We will also be working with local high schools to create immersion programs to encourage young people to consider high technology farming as a career.

## **2. Facilities**

Maui Phoenix Farms LLC has been offered a 20-year lease on a new location comprising 8 acres at 13500 Haleakala Highway in Kula. We are currently working to secure funding in order to create a full-scale version of the commercial trout aquaponic farm that was pioneered at Kulahaven. Funding sources include the USDA's Farm Services Agency, Hawaii Energy and Feed the Hunger Foundation for equipment loans and private equity partners for capital necessary for initial buildout and the first 2 years of operations. We also have a substantial quantity of equipment on hand from our R&D phase.

## **VI. Personnel: Project Organization and Staffing**

### **1. Proposed Staffing, Staff Qualifications, Supervision and Training**

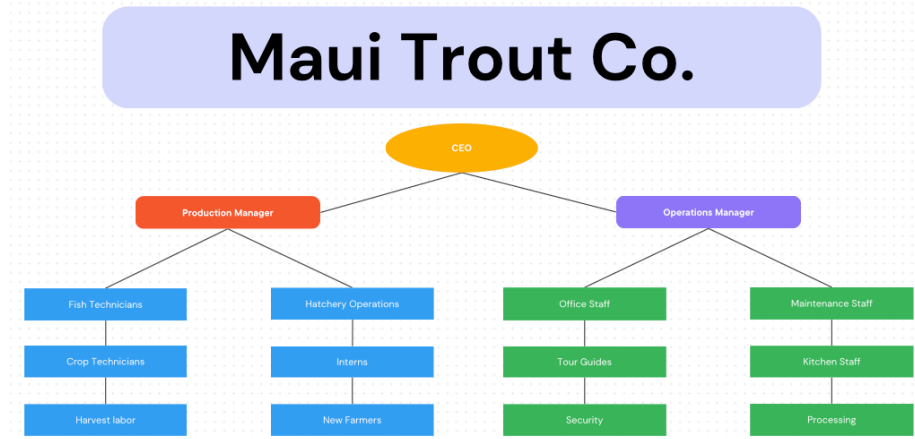
Initial operations of the rainbow trout hatchery will be conducted by the core team of Maui Phoenix Farms LLC, with paid internships offered through both UH Maui College and the Hawaii Farmer's Union United. Once these interns have been fully trained they will constitute the first hires for the farm under the supervision of the Maui Phoenix Farms LLC core team, including:

John Dobovan, Founder and CEO, began his commercial aquaponic farming work in 2012 as a co-founder of Nalicious Farm LLC in Waimanalo, Hawaii where he served as Science Officer as well as VP for Marketing and Sales while raising tilapia and Chinese catfish. He has a degree in Sustainable Tropical Crop Management from University of Hawaii Maui College, is a member of the Sigma Psi chapter of Phi Theta Kappa, past president of the Haleakala chapter of Hawaii Farmer's Union United, and a founding member and past president of the Maui Food Hub. He has been hatching trout and testing trout aquaponics since 2014. He built and operated Kulahaven Farms, Hawaii's first commercial rainbow trout aquaponic farm, from 2016 to 2022.

Aimee Greenwood, Production Manager, was initially trained in Biology at the College of Charleston, SC and later obtained an MS in traditional Chinese Medicine. Her career has included internships with the EPA, work in an environmental monitoring laboratory, botany teacher, licensed acupuncturist and sheep program manager. She has had 5 years experience hatching and raising rainbow trout in an aquaponic system and was the watercress crop manager at Kulahaven Farms.

Kevin Hopkins, Ph.D., primary aquaculture consultant. He is certified as a Fisheries Scientist by the American Fisheries Society and was the past president of the United States Aquaculture Society. He was the Executive Director of the consortium for International Fisheries and Aquaculture Development at Oregon State University prior to moving to Hilo where he served as the Director of the Pacific Aquaculture and Coastal Resources Center at University of Hawaii, Hilo.

2. Organization Chart



3. Compensation

The applicant shall provide an annual salary range paid by the applicant to the three highest paid officers, directors, or employees of the organization by position title, not employee name.

CEO: \$21,600 - \$96,080  
Production Manager: \$67,200 - \$76,800  
Operations Manager: \$72,960 - \$76,800

**VII. Other**

1. Litigation

The applicant shall disclose any pending litigation to which they are a party, including the disclosure of any outstanding judgement. If applicable, please explain.

None.

2. Licensure or Accreditation

The applicant shall specify any special qualifications, including but not limited to licensure or accreditation that the applicant possesses relevant to this request.  
N/A

### 3. Private Educational Institutions

The applicant shall specify whether the grant will be used to support or benefit a sectarian or non-sectarian private educational institution. Please see [Article X, Section 1, of the State Constitution](#) for the relevance of this question.

No connection of any kind.

### 4. Future Sustainability Plan

The applicant shall provide a plan for sustaining after fiscal year 2024-25 the activity funded by the grant if the grant of this application is:

- (a) Received by the applicant for fiscal year 2024-25, but
- (b) Not received by the applicant thereafter.

Maui Phoenix Farms LLC, dba Maui Phoenix Farms LLC, is a startup commercial aquaponic farm built upon the prior experience of Kulahaven Farms LLC. It is in the process of acquiring capital and additional equipment necessary for full-scale operations. Once those things are in place and operations begin, we anticipate reaching profitability within 2 years due to a combination of existing customers and planned agritourism activities - including farm to table tours and public trout fishing. If this request is fully funded, we do not anticipate requiring additional grants from the Legislature for this endeavor as we will be able to expand to full scale through a combination of private equity, loans and grants from other agencies such as the USDA, NSF and NSA.

<b>Years 1 to 5</b>	<b><u>Year 1</u></b>	<b><u>Year 2</u></b>	<b><u>Year 3</u></b>	<b><u>Year 4</u></b>	<b><u>Year 5</u></b>
<b>Summary Financials (\$)</b>					
Bus Tours	15,250	174,750	273,750	365,000	365,000
Crop Sales	2,100	36,000	144,000	288,000	576,000
Farm to Table Tours	0	217,652	2,439,000	3,650,000	3,650,000
Fish Wholesale	0	104,790	194,026	112,000	355,000
FIT Tours	21,350	266,175	511,000	766,500	1,277,500
Gift Shop	0	6,000	12,000	18,000	24,000
Meals Sold	0	0	487,800	616,500	1,920,000
Smoked Trout	0	0	0	600,000	2,304,000
Trout Fishing	0	0	202,000	868,000	960,000
<b>ST Revenue</b>	<b>38,700</b>	<b>805,367</b>	<b>4,263,576</b>	<b>7,284,000</b>	<b>11,431,500</b>
Cost of Sales	8,188	48,508	189,818	377,595	608,295
<b>Gross Profit</b>	<b>30,512</b>	<b>756,858</b>	<b>4,073,758</b>	<b>6,906,405</b>	<b>10,823,205</b>
Cost of Operations	302,168	627,375	2,217,726	3,616,903	4,642,166
<b>EBITDA</b>	<b>-271,656</b>	<b>129,483</b>	<b>1,856,032</b>	<b>3,289,502</b>	<b>6,181,040</b>