

**THE THIRTIETH LEGISLATURE  
APPLICATION FOR GRANTS  
CHAPTER 42F, HAWAII REVISED STATUTES**

Type of Grant Request:

Operating

Capital

Legal Name of Requesting Organization or Individual: Db:

Kuleana Coral Reefs

Kuleana Coral Restoration

Amount of State Funds Requested: \$ 391,319.17

Brief Description of Request (Please attach word document to back of page if extra space is needed):

Kuleana Coral Reefs, in partnership with University of Hawaii researchers, is requesting funds to systematically quantify toxic metal in fish and limu in the 'Ewa beach region. Fish and limu are regularly collected and consumed by the local community, however, there is deepening concern about toxic metals in their marine resources, particularly in regard to the Pu'uloa firing range. Limited preliminary data suggest concerning lead levels in the local fish. This study will produce robust scientific data on toxic metals in fish and limu so the community can make informed consumption choices.

Amount of Other Funds Available:

State: \$ 0

Federal: \$ 0

County: \$ 0

Private/Other: \$ 0

Total amount of State Grants Received in the Past 5 Fiscal Years:

\$ 0

Unrestricted Assets:

\$ 38,826.16

New Service (Presently Does Not Exist):

Existing Service (Presently in Operation):

Type of Business Entity:

501(C)(3) Non Profit Corporation

Other Non Profit

Other

Mailing Address:

92-1480 Aliinui Dr #1104

City:

Kapolei

State:

HI

Zip:

96707

Contact Person for Matters Involving this Application

Name:  
Daniel DeMartini

Title:  
Chief Scientific Officer

Email:  
danny@kuleanacoral.com

Phone:  
808-258-3143

Federal Tax ID#:

██████████

State Tax ID#

██████████

  
Authorized Signature

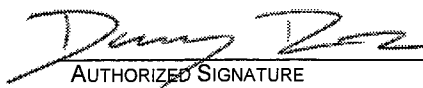
Daniel DeMartini, Chief Scientific Officer  
Name and Title

01/18/2023  
Date Signed

## 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



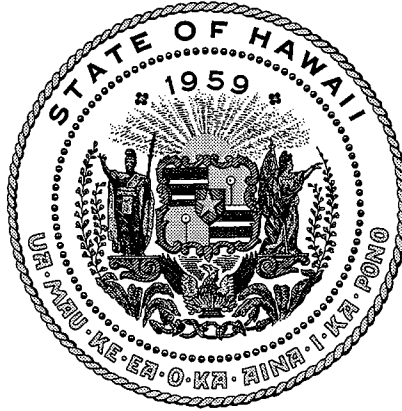
AUTHORIZED SIGNATURE

Daniel DeMartini, Chief Scientific Officer

PRINT NAME AND TITLE

1/18/2024

DATE



## 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

**KULEANA CORAL REEFS**

was incorporated under the laws of Hawaii on 11/06/2019 ;  
that it is an existing nonprofit corporation; and that,  
as far as the records of this Department reveal, has complied  
with all of the provisions of the Hawaii Nonprofit Corporations  
Act, regulating domestic nonprofit corporations.



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: August 07, 2023

Director of Commerce and Consumer Affairs

**DECLARATION STATEMENT OF  
APPLICANTS FOR GRANTS PURSUANT TO  
CHAPTER 42F, HAWAII REVISED STATUTES**

The undersigned authorized representative of the applicant certifies the following:

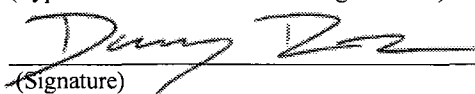
- 1) The applicant meets and will comply with all of the following standards for the award of grants pursuant to Section 42F-103, Hawaii Revised Statutes:
  - a) Is licensed or accredited, in accordance with federal, state, or county statutes, rules, or ordinances, to conduct the activities or provide the services for which a grant is awarded;
  - b) Complies with all applicable federal and state laws prohibiting discrimination against any person on the basis of race, color, national origin, religion, creed, sex, age, sexual orientation, or disability;
  - c) Agrees not to use state funds for entertainment or lobbying activities; and
  - d) Allows the state agency to which funds for the grant were appropriated for expenditure, legislative committees and their staff, and the auditor full access to their records, reports, files, and other related documents and information for purposes of monitoring, measuring the effectiveness, and ensuring the proper expenditure of the grant.
  
- 2) If the applicant is an organization, the applicant meets the following requirements pursuant to Section 42F-103, Hawaii Revised Statutes:
  - a) Is incorporated under the laws of the State; and
  - b) Has bylaws or policies that describe the manner in which the activities or services for which a grant is awarded shall be conducted or provided.
  
- 3) If the applicant is a non-profit organization, it meets the following requirements pursuant to Section 42F-103, Hawaii Revised Statutes:
  - a) Is determined and designated to be a non-profit organization by the Internal Revenue Service; and
  - b) Has a governing board whose members have no material conflict of interest and serve without compensation.

Pursuant to Section 42F-103, Hawaii Revised Statutes, for grants used for the acquisition of land, when the organization discontinues the activities or services on the land acquired for which the grant was awarded and disposes of the land in fee simple or by lease, the organization shall negotiate with the expending agency for a lump sum or installment repayment to the State of the amount of the grant used for the acquisition of the land.

Further, the undersigned authorized representative certifies that this statement is true and correct to the best of the applicant's knowledge.

**Kuleana Coral Reefs**

(Typed Name of Individual or Organization)



(Signature)

01/18/2023

(Date)

Daniel DeMartini

(Typed Name)

Chief Scientific Officer

(Title)

## Application for Grants

*If any item is not applicable to the request, the applicant should enter "not applicable".*

### **I. Certification – Please attach immediately after cover page**

#### **1. Certificate of Good Standing (If the Applicant is an Organization)**

If the applicant is an organization, the applicant shall submit one (1) copy of a certificate of good standing from the Director of Commerce and Consumer Affairs that is dated no earlier than December 1, 2022.

- See attached.

#### **2. Declaration Statement**

The applicant shall submit a declaration statement affirming its compliance with Section 42F-103, Hawaii Revised Statutes.

- See attached.

#### **3. Public Purpose**

The applicant shall specify whether the grant will be used for a public purpose pursuant to Section 42F-102, Hawaii Revised Statutes.

Kuleana Coral Reefs is requesting Grants-In-Aid funds for the purpose of quantifying heavy metal contamination in targeted limu and fish species in 'Ewa beach. The purpose of this grant is to provide comprehensive scientific data to the community out of direct community concern for health and safety of food collection in the 'Ewa Beach marine environment. The budget for the enclosed proposal is \$391,319.17 which includes salaries for individuals involved in collection, analysis, and interpretation of data to be presented as well as any and all costs associated with said collection, analysis, and interpretation.

### **II. Background and Summary**

Kuleana Coral Reefs (KCR) was established in 2019 by a diverse team of Native Hawaiians, scientists, and ocean advocates determined to restore the degraded coral reefs in our backyards. As a 501(c)(3) nonprofit organization, our mission is to restore Hawaii's coral reefs to cultivate resilient marine ecosystems for the enrichment of culture, environment, and economy for the people of Hawai'i. Using a combination of modern scientific research methods and traditional indigenous management techniques, KCR works to achieve a goal of abundant reef ecosystems in pursuit of 'āina momona

(rich and fertile land and sea). In Hawaiian, *kuleana* means “responsibility,” and implies a deep reciprocal relationship between the person who is responsible and the resource that they are responsible for.

For the last two years, KCR has worked on the concept of Community-based Coral Restoration Areas at Pokai Bay West O’ahu, a notable fishing site for subsistence and recreational fishers and critical habitat for target fish species. In partnership with local fishers and community partners that work in the area and funding from the Fish Habitat Partnership grant, our restoration team has worked to restore degraded reef habitat, monitor species stocks and key species for subsistence fishing locally, and engage local fishers directly through our Education & Outreach community events. The people of Hawai’i rely on coral reefs and the ecosystem services they provide – ecologically, culturally, and economically - but it is also important to look at the system holistically to include human health and safety.

When engaging the local community in ‘Ewa Beach, residents raised concerns about contaminants in traditionally harvested marine foods. Residents of ‘Ewa (population 16,415) continue a tradition of subsistence collecting or fishing in coastal waters. Hawaiian settlement on the ‘Ewa Plain dates back at least to the 12th century when kanaka maoli created fishponds and terraced agricultural fields in the surrounding area. By 1891, the area was dominated by the 11,000 acre ‘Ewa Sugar Plantation. However, by the mid 1970’s, the region had re-established its reputation for fishing and collecting limu for families to consume. The contaminant of most concern is lead, which could originate from multiple sources, including the US Marine Corps’ Pu’uloa Firing Range, located on ‘Ewa Beach between the DNR’s Limu Management Area and the residential community at Iroquois Point. Other potential sources of metal contaminants include natural sources of metals from volcanic rock and soils, other military installations and activities, vehicles and emissions from fuel combustion, including legacy inputs from leaded gasoline, urban runoff, including inputs from cesspools and septic systems, and airports, marine ports, marinas, shipyards, and other industries. A preliminary study of four fish samples documented the presence of lead in three fish species from ‘Ewa Beach. However, the study’s small sample size limits the usefulness of the data for assessing human health risks associated with consuming marine foods from these waters.

To better understand the risks associated with consuming limu and marine fish from the ‘Ewa Beach area, we propose a larger-scale study that will document concentrations of seventeen metals, including lead, cadmium, arsenic, chromium, and zinc, in limu and fish from the ‘Ewa Beach area and a control site (Kaena Point). With input from local community members, we will collect approximately 700 samples of limu and fish at sites in front of and to the east and west of the Pu’uloa Firing Range (including the DNR’s Limu Management Area) as well as at the control Kaena Point site. All samples will be collected using established protocols for metal sampling to avoid sample contamination. Passive water samplers will also be deployed in the sampling areas to estimate metal concentrations in the water. Leaching rates of metals from inactive ordinance collected from ‘Ewa Beach will be determined in the lab at the University of Hawai’i. Metals

concentrations will be measured using inductively coupled plasma mass spectrometry (ICP-MS) at Western Washington University using standard methods. These data will then be compared to screening levels developed from USEPA and US FDA-based reference dose and interim reference levels. If concentrations of metals exceed screening levels, new recommended consumption rates for each species at each location will be calculated. The study results and their implications for subsistence collecting and fishing will be communicated to 'Ewa residents at town hall meetings or other public venues. It is our hope that we can provide some robust data to the 'Ewa Beach community and general public such that they can make informed personal and community decisions and also serve as a model for future case studies on Hawai'i.

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

Our study aims to assess the toxic metal content in select reef biota collected in the 'Ewa Beach shoreline. We will focus on analysis of benthic limu and targeted food fish collected from 'Ewa Beach region, and at least one control location. This study will begin to address both ecological and public health concerns for subsistence collectors and the community.

#### **Objectives:**

- Quantify metal concentrations in key fish and limu species across the 'Ewa Coastline.
- Investigate correlations between metal levels and species, habitat, and location in the 'Ewa Beach coastal region in comparison with control sites such as Ka'ena Point.
- Compare metal levels in 'Ewa to locally collected limu, or other market-sourced foods and a remote region of less industrial/urban pressure.
- Report to the 'Ewa community the metal exposure risk by consuming locally sourced fish and limu.

#### **Study Area and Collections:**

'Ewa Beach, located on the leeward coast of O'ahu, was chosen for its ecological importance, potential anthropogenic influences, community health concerns and political attention.



- |                           |                               |  |
|---------------------------|-------------------------------|--|
| 1: Puuloa Range Near*     | 5: White Plains Nearshore     | *Access Required From Marines (likely granted)   |
| 2: Puuloa Range Offshore* | 6: White Plains Offshore      |  |
| 3: Ewa Beach Nearshore    | 7: Iroquois Point Nearshore** | **Access Required from Navy (may not be granted) |
| 4: Ewa Beach Offshore     | 8: Iroquois Point Offshore**  |  |

Figure 1: Map of tentative collection sites for Limu and fish. Red circle in insert map marks 'Ewa Beach region. Green circles mark possible control sites.

At 'Ewa Beach, four 2.5 km transects will be placed one in each of the four areas noted as Boxes 1,3,5,7 of Figure 1. We anticipate an abundance of an invasive seaweed that will be sampled to allow direct comparisons within species to be made (Table 1). Seaweeds will be collected by staff and researchers contracted from the University of Hawaii at Manoa at 12 sites along the length of each transect, with two replicates for tissue analysis and one specimen for herbarium collection and identification. These four transects and sampling scheme are repeated by placing four 2.5 km transects, one in each of the four sampling areas but in more shallow, intertidal regions, just mauka of the nearshore boxes 1, 3, 5, and 7. Occasional limu will be collected as encountered in regions bounded by boxes 2, 4, 6 and 8. Thus, this sampling approach gives us three reef regions, intertidal, shallow near shore water and offshore settings, for assessment by collection of limu and invasive algae.

Trained divers from Kuleana Coral Reefs will collect the targeted fish species (Table 2) in each of the collection sites 1-8 (Figure 1) and the additional control sites. Fish samples will be collected in a manner to minimize metal contamination (i.e. using nets, no metal spears). Great care will be taken to avoid any bycatch.

Control Areas being considered include Ka'ena Point or alternatively the Ko Olina shoreline as intertidal and shallow reef collection sites. At a control site, our tentative sampling will have up to four 2.5 km transects placed one in each of the four areas along the control region coastline. This sampling will be repeated by placing up to four 2.5 km transects, one in each of the four sampling areas but in more shallow, intertidal regions, mauka of the nearshore sampling sites. Access to limu in deeper water may be limited given rough water conditions that are common in the Ka'ena Point region. Fish will be collected at the control site following the same approach as the study site.



Similar fish and limu species will be collected by the local community or purchased (as available) from the local seafood market and processed in tandem with the field collections.

Table 1: Target invasive seaweeds and Native limu species

Name (Common)	Scientific Name	# Algae	Comments
Invasive Seaweed:	<i>Acanthophora spicifera</i>	≤53 0	Possibly most abundant species. Will be major species collected.
A mix of natives will be sampled if encountered. Invasive seaweed samples may be reduced, accordingly.			
Limu Huluhuluwaena	<i>Grateloupia filicina</i>	≤5	Rare. Picked, w traditional mthd
Limu Kala	<i>Sargassum aquifolium</i>	≤25	Common. Picked, traditional mthd
Limu Kohu	<i>Asparagopsis taxiformis</i>	≤25	Common, Picked, traditional mthd
Limu Lepe o Hina	<i>Halymenia formosa</i>	≤5	Rare. Picked, traditional mthd
Limu Manauea / ogo	<i>Gracilaria coronopifolia</i> <i>/ parvispora</i>	≤5	Rare. Picked, traditional mthd
Limu Māne'one'o	<i>Laurencia nidifica</i>	≤5	Rare. Picked, traditional mthd
Limu Palahalaha / 'Ele'ele	<i>Ulva lactuca / prolifera</i>	≤25	Common. Picked, traditional mthd
Limu Wāwae'iole	<i>Codium edule</i>	≤25	Common. Picked, traditional mthd
<b>Total</b>		≤530	

Table 2: Target Fish Species

Name (Common)	Scientific Name	# Fish	Comments
Kole (Goldring Surgeonfish)	<i>Ctenochaetus strigosus</i>	3-4	Detritivore, herbivore ("micro" algae)
Kala (Bluespine Unicornfish)	<i>Naso unicornis</i>	3-4	Herbivore
Palani/Pualu	<i>Acanthurus blochii/dussumieri</i>	3-4	Herbivore
Po'opa'a (Stocky Hawkfish)	<i>Cirrhitus pinnulatus</i>	3-4	Carnivore, crustaceans, worms, small fish
Weke 'ula (yellowfin "red" goatfish)	<i>Mulloidichthys vanicolensis</i>	3-4	Carnivore, small crustaceans, molluscs, worms
U'u, Mempachi	<i>Myripristis berndti</i>	3-4	Carnivore, small fish, crustaceans, plankton
Roi (Peacock Grouper)	<i>Cephalopholis argus</i>	1-2	Piscivore, invasive not a prized food fish (ciguatera)

Papio/Omilu	<i>Caranx memampygus</i>	1-2	Piscivore
<b>Total</b>		<b>17-24</b>	<b>x 10 sites + Fish Market = 264 samples</b>

**Sample processing plan:**

Fish and limu samples will be cleaned, lyophilized, and processed at UH Mānoa then shipped on dry ice to the contractor/partner lab at Western Washington University run by Dr. Ruth Sofield. Samples will be stored in -80C freezer until shipment. This sampling will require at least one visit to oversee collections from Dr. Sofield to ensure best practices in sample collection. Dr. Ruth Sofield will oversee tissue analysis.

**Metal Analysis:**

Our target metals include: Mercury, Lead, Cadmium, Antimony, Arsenic, Nickel, Zinc, Copper, Cobalt, as well as Silver, Aluminum, Arsenic, Barium, Cadmium, Cobalt, Chromium, Copper, Iron, Manganese, Nickel, Lead, Antimony, Thorium, Uranium, Vanadium, and Zinc via Inductively Coupled Plasma Mass Spectrometry (ICP-MS) to be carried out at Western Washington University.

**Human Health Risk Assessment:**

Based on the levels of toxic metals found in fish and limu samples, we will calculate estimates of human exposure, considering local consumption rates.

Established consumption guidelines can be used to evaluate potential health risks associated with metal exposure. We aim to provide species-specific recommendations for consumption rates that are protective of human health.

**Data Analysis and Research products:**

Statistical methods: ANOVA and regression analysis to correlate metal concentrations with biological and ecological data, location, species, organismal size. Principal component analysis, cluster analyses, and other multivariate methods will be employed as needed. Data products to be submitted to KCR include complete taxonomic lists of algae sampled at experimental and control locations, analyzed data sets based on locations of samples and the metals detected. Further efforts will provide species specific recommendations for consumption of these biota will be presented for consideration. Finally, we intend to submit a manuscript of our findings to Marine Pollution Bulletin or another marine pollution oriented journal.

**Projected Timeline**

Apr 1, 2024 to Mar 31, 2025

A 12-month timeline is proposed for this project.

- 2-3 months for fish and limu sample collection
- 4-6 months for sample processing and laboratory analysis
- 2-3 months for data interpretation and reporting

**Quality Assurance and Evaluation**

All sample collections and chemical analysis will follow nationally accepted scientific protocols and adhere to the highest levels of scientific practice. The collection plan was conceived to produce robust and statistically relevant results. Great care will be taken to minimize potential external sources of metal contamination (ie sample containers, cutting devices). Results will be published in peer-reviewed internationally recognized scientific journals.

**Final Product and Data Sharing**

The scientific results will be written and published in peer reviewed scientific journals. All data generated from this study will be publicly available on the KCR website and appropriate scientific databases.

Kuleana Coral Reefs will hold public meetings in the ‘Ewa Beach community at the conclusion of this study to explain all of the collected data and results. In this way the community can make informed decisions on what and how much limu and fish to consume from their environment.

**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 (See Attached)
  - b. Personnel salaries and wages (See Attached)
2. The applicant shall provide its anticipated quarterly funding requests for the fiscal year 2024.

Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total Grant
	\$130,439.72	\$130,439.73	\$130,439.72	\$391,319.17

3. The applicant shall provide a listing of all other sources of funding that they are seeking for fiscal year 2024.
  - \$180,195.73 (NOAA-NMFS-HCPO-2023-2008173)
  - \$1,379,226.62 (NOAA-NMFS-HCPO-2023-2008081)
  - \$20,487.25 (University of Hawaii Sea Grant College Program)
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.
  - Not Applicable

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 2024 for program funding.
  - \$62,986.78 (Subaward MA 1817 with Hawaii Institute of Marine Biology)
  - \$44,898.52 (NA23NMF4630151)
  - \$183,817.89 (Subaward NOAA-NMFS-HCPO-2022-2007195 with Malama Maunalua)
  - \$13,117.50 (Fish Habitat Partnership with USFW)
  - \$11,123.20 (NFWF 3002.22.075946)
  
6. The applicant shall provide the balance of its unrestricted current assets as of December 31, 2022.
  - \$38,826.16 (as of 31 December 2023)

## **V. Experience and Capability**

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

**Dr. Daniel DeMartini** has a PhD in Biochemistry with a specific emphasis in marine systems. He is the Chief Scientific Officer at Kuleana Coral Reefs, where he leads dive teams in sample collections and coral restoration. They have been conducting coral and fish monitoring in the 'Ewa Moku since 2019.

**Alika Peleholani Garcia**, Kuleana Coral Reefs Executive Director, and sixth generation resident of the 'Ewa Moku, has been diving commercially and recreationally in the 'Ewa Beach marine environment region for decades. Alika Garcia has an intimate understanding of the surrounding coastline, region and communities, fish collection techniques, strategies and regulations.

**Professor Celia Smith** has over 35 years of research experience at the University of Hawai'i - Mānoa (UHM), as Professor of Botany and a physiological ecologist focusing on better understanding the drivers of and impacts of invasive algae as well as growth parameters needed by native limu to thrive in native habitats. This body of knowledge in algal research has led to over 125 papers published and over 20 MS and PhD students trained.

### **2. Facilities**

All of the facilities and equipment resources necessary for the completion of the proposed work are currently in place and operational.

**Kuleana Coral Reefs-** Offices and facilities are located in the Ko Olina resort and Marina, including a 28' dive vessel, SCUBA equipment, tanks, and all of the requisite safety gear and fish collection equipment. Kuleana Coral Reefs has a fully insured, trained and operational dive program and dive team. The KCR dive program is certified by the American Association of Underwater Scientists.

**The Limu Lab in St John Plant Science building,** rms 616-68 at UHM, is a newly renovated lab that has three compound (3) and dissecting (1) research microscopes, fume hoods (2), freezers (2), drying ovens (4) and over 200 ft<sup>2</sup> of open bench space in support of algal physiological ecology. An equal area of bench space support equipment available for use that includes Walz Jr PAM (3), Diving PAM (3; 2 red actinic and 1 blue actinic light sources), Agilent Spectrophotometer, Shimadzu spectrophotometer, underwater cameras, quantitative field gear including YSI sensors for temperature, oxygen and conductivity, transects, quadrats and other gear.

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

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

The Director of Science (KCR) and R5 Research Scientist (UHM) will be the leads of their respective programs and will be directly involved in sampling collection and protocol, data analysis, and subsequent reporting. The Restoration and Marine Techs (KCR) and GA position (UHM) will be responsible for the collection, preparation for analysis, and help assisting in data analysis. The Contractor for Analysis and Interpretation (WWU) will be responsible for conducting all analyses done at WWU.

### **2. Organization Chart**

Kuleana Coral Reefs Organization

- Executive Director
  - Director of Science
    - Dive Safety Officer, Restoration Manager, Admin Manager
    - Restoration Technician, Marine Operations Technician

### **3. Compensation**

- Executive Director - \$75,000 annual
- Director of Science - \$75,000 annual
- Dive Safety Officer - \$55,000 annual

## **VII. Other**

### **1. Litigation**

The applicant shall disclose any pending litigation to which they are a party, including the disclosure of any outstanding judgment. 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.

- Kuleana Coral Reefs is a non-profit 501(c)3 organization in good standing.
- Kuleana Coral Reefs has a certified dive program by the American Association of Underwater Scientists.

## **3. Private Educational Institutions**

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

- Kuleana Coral Reefs will not use these funds to support or benefit a sectarian or nonsectarian private educational institution.

## **4. Future Sustainability Plan**

The applicant shall provide a plan for sustaining after fiscal year 2023-24 the activity funded by the grant if the grant of this application is:

- (a) Received by the applicant for fiscal year 2023-24, but
  - (b) Not received by the applicant thereafter.
- The proposed project will be started and completed in 2024-25, producing valuable data on toxic metal exposure for the coastal users of the 'Ewa community. This project is meant to be a self-contained case study that can be used as a template for helping other Hawaii communities concerned about toxic metals in their own limu and fish.

Proposal budget

## BUDGET REQUEST BY SOURCE OF FUNDS

Period: April 1, 2023 to March 31, 2025

Applicant: Kuleana Coral Reefs

BUDGET CATEGORIES	Total State Funds Requested (a)	Total Federal Funds Requested (b)	Total County Funds Requested (c)	Total Private/Other Funds Requested (d)
<b>A. PERSONNEL COST</b>				
1. Salaries	141,183			
2. Payroll Taxes & Assessments	0			
3. Fringe Benefits	57,141.70			
<b>TOTAL PERSONNEL COST</b>	<b>198,324.70</b>			
<b>B. OTHER CURRENT EXPENSES</b>				
1. Travel - Airfare	1,000			
2. Travel - Vehicle	804			
3. Supplies	13,089			
4. Shipping	1,000			
5. Analysis Costs	125,127			
6. Publication	3,000			
7. Boat & Fuel	13,400			
8. Indirect Costs (10%)	35,574.47			
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
<b>TOTAL OTHER CURRENT EXPENSES</b>	<b>192,994</b>			
C. EQUIPMENT PURCHASES	0			
D. MOTOR VEHICLE PURCHASES	0			
E. CAPITAL	0			
<b>TOTAL (A+B+C+D+E)</b>	<b>391,319.17</b>			
<b>SOURCES OF FUNDING</b>		Budget Prepared By:		
(a) Total State Funds Requested	391,319.17	Stephanie Flores (Admin Manager at KCR) (808) 772-3469		
(b) Total Federal Funds Requested	0	Name (Please type or print) Phone		
(c) Total County Funds Requested	0	01/18/2024		
(d) Total Private/Other Funds Requested	0	Signature of Authorized Official Date		
<b>TOTAL BUDGET</b>	<b>391,319.17</b>	Daniel DeMartini (Director of Science at KCR) Name and Title (Please type or print)		

Proposal budget

## BUDGET JUSTIFICATION - PERSONNEL SALARIES AND WAGES

Period: April 1, 2023 to March 31, 2025

Applicant: Kuleana Coral Reefs

POSITION TITLE		FULL TIME EQUIVALENT	ANNUAL SALARY A	% OF TIME ALLOCATED TO GRANT REQUEST B	TOTAL STATE FUNDS REQUESTED (A x B)
Director of Science	Kuleana Coral Restoration	\$75,000	\$75,000	25%	\$18,750
Restoration Tech	Kuleana Coral Restoration	\$55,000	\$55,000	35%	\$19,250
Marine Operations Tech (Captain)	Kuleana Coral Restoration	\$55,000	\$55,000	7.50%	\$4,125
Restoration Tech/Diver	Kuleana Coral Restoration	\$45,000	\$45,000	7.50%	\$3,375
R5 Research Scientist	University of Hawaii at Manoa	\$120,000	\$120,000	50%	\$60,000
GA (Graduate Student)	University of Hawaii at Manoa	\$32,784	\$32,784	100%	\$32,784
Contractor for Analyses & Interpretation	Western Washington University	\$100,000	\$100,000	2.90%	\$2,899
					\$ -
<b>TOTAL:</b>					<b>\$141,183</b>
<p><b>JUSTIFICATION/COMMENTS:</b> The Director of Science (KCR) and R5 Research Scientist (UHM) will be the leads of their respective programs and will be directly involved in sampling collection and protocol, data analysis, and subsequent reporting. The Restoration and Marine Techs (KCR) and GA position (UHM) will be responsible for the collection, preparation for analysis, and help assisting in data analysis. The Contractor for Analysis and Interpretation (WWU) will be responsible for conducting all analyses done at WWU.</p>					