

**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: Ma'alaea Village Association 501(c)(3)

Amount of State Funds Requested: \$ 1,250,000

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

This is a request for \$1,250,000 to advance progress on realizing a new Ma'alaea Regional Wastewater Reclamation System, through site clearing, site preparation, detailed design 'Plan to Build' and Technical Administration work.

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: \$ 250,000  
Unrestricted Assets: \$ 45,499

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:

P.O. Box 2122  
City: Wailuku State: HI Zip: 96793

Contact Person for Matters Involving this Application

|                                    |                                   |
|------------------------------------|-----------------------------------|
| Name:<br>Travis Liggett            | Title:<br>Technical Administrator |
| Email:<br>travis@reefpowermaui.com | Phone:<br>(808) 757-5984          |

|   |   |
|---|---|
| Federal Tax ID#:<br><u>                    </u> | State Tax ID#:<br><u>                    </u> |
|---|---|

  
\_\_\_\_\_  
Authorized Signature

Tapani Vuori, Vice President, MVA  
\_\_\_\_\_  
Name and Title

01/15/24  
\_\_\_\_\_  
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



TAPANI VUORI, MVA VICE PRESIDENT

AUTHORIZED SIGNATURE

PRINT NAME AND TITLE

01/15/24

DATE



STATE OF HAWAII  
STATE PROCUREMENT OFFICE

**CERTIFICATE OF VENDOR COMPLIANCE**

This document presents the compliance status of the vendor identified below on the issue date with respect to certificates required from the Hawaii Department of Taxation (DOTAX), the Internal Revenue Service, the Hawaii Department of Labor and Industrial Relations (DLIR), and the Hawaii Department of Commerce and Consumer Affairs (DCCA).

**Vendor Name:** MA'ALAEA VILLAGE ASSOCIATION

**DBA/Trade Name:** Maalaea Village Association

**Issue Date:** 01/02/2024

**Status:** **Compliant**

Hawaii Tax#:

New Hawaii Tax#:

FEIN/SSN#: XX-XXX6085

UI#: No record

DCCA FILE#: 278891

Status of Compliance for this Vendor on issue date:

| Form  | Department(s)                                     | Status    |
|-------|---|-----------|
| A-6   | Hawaii Department of Taxation                     | Compliant |
| 8821  | Internal Revenue Service                          | Compliant |
| COGS  | Hawaii Department of Commerce & Consumer Affairs  | Exempt    |
| LIR27 | Hawaii Department of Labor & Industrial Relations | Compliant |

**Status Legend:**

| Status        | Description   |
|---------------|---|
| Exempt        | The entity is exempt from this requirement  |
| Compliant     | The entity is compliant with this requirement or the entity is in agreement with agency and actively working towards compliance |
| Pending       | A status determination has not yet been made  |
| Submitted     | The entity has applied for the certificate but it is awaiting approval  |
| Not Compliant | The entity is not in compliance with the requirement and should contact the issuing agency for more information                 |

## 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. Hawaii Compliance Express Certificate (If the Applicant is an Organization)**

Included please find one (1) copy of a Hawaii Compliance Express Certificate from the Comptroller of the Department of Accounting and General Services that is dated January 2023.

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

Included please find a declaration statement affirming compliance with Section 42F-103, Hawaii Revised Statutes.

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

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

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

This section shall clearly and concisely summarize and highlight the contents of the request in such a way as to provide the State Legislature with a broad understanding of the request. Please include the following:

#### **1. A brief description of the applicant's background;**

Ma'alaea Village Association (MVA) was formed by a small group of committed Ma'alaea property owners in 2016 after the dissolution of the Maalaea Community Association, which served the Ma'alaea community from 1988-2016. MVA received its federal 501(c)(3) nonprofit corporation status in August, 2017. As of this writing MVA has over 230 members, plus over 500 subscribers to our newsletter list.

The purpose of the Association is to protect the unique community of Ma'alaea Village; improve communication between stakeholders; and educate the Ma'alaea/Maui communities and elected officials on the need to preserve and share Ma'alaea Village's rural, ocean-oriented sense of place, for the benefit of all.

The Association's objectives are to:

- Educate the Ma'alaea Village community and others to protect, preserve and enhance the orderly development, improvement and sustained use of Ma'alaea Bay and surrounding area to perpetuate and preserve the rural, ocean-oriented lifestyle of Ma'alaea Village;
- Protect scenic vistas, open space and free flow of traffic through the Ma'alaea corridor and within Ma'alaea Village for the benefit of all Maui residents and visitors;
- Protect land/marine resources: sand dunes, beach right of way, wildlife, wetlands and flood plains, endangered and rare marine and native flora/fauna, and cultural resources;
- Improve community planning and zoning to protect the Ma'alaea Village 'Sense of Place';
- Improve roads & highways, sidewalks, bikeways, parks, harbors, public transportation, domestic water supply, surface water drainage, sewage disposal, refuse and trash removal;
- Improve evacuation and emergency planning, public safety, fire and police protection and emergency medical services for Ma'alaea Village;
- Improve communication between Ma'alaea Village owners, residents, visitors and businesses, to enhance neighborliness and well-being and community sustainability;
- Collect, investigate and disseminate information of common concern to the membership;
- Foster a community interest in civic affairs to improve understanding of the political process and communicate area needs to public officials.

2. The goals and objectives related to the request;

All goals and objectives of the request support the incremental next steps in the realization of a Ma'alaea Regional Wastewater Reclamation System in Ma'alaea Maui, including:

- fire break land clearing of 10 acres of planned installation
- site preparation activities such as fencing, access road and utilities installation
- Plan to Build detailed design, to prepare for system installation
- 4.8% Technical Administration allocation

3. The public purpose and need to be served;

The science points to two major material inputs into nearshore waters that have led to the decline of nearshore reef ecosystems in Ma'alaea, being excessive sediment input in stormwater runoff from inland watershed lands, and nutrient & pathogen inputs from 26 nearshore injection well wastewater discharges.

Injection well wastewater disposal consists of a bored hole, deeper than it is wide that places fluid deep underground into porous rock formations. There are 12 Underground Injection Control Program injection well permittees in Ma'alaea, with 26 individual wells of 13' - 60' in depth. The 12 systems include ten condominiums, the Ma'alaea Triangle commercial center and the Ma'alaea boat harbor. Only the Ma'alaea Triangle commercial center has deep bore injection wells at 290 feet in depth. The on-site wastewater systems servicing Ma'alaea's ten condominium properties were built in the 1970's, use 1970's technology, and pump pathogens & nutrients into injection wells located directly adjacent to the shoreline. These outdated systems, along with legacy agricultural chemicals and sedimentation from the Pohakea watershed, have contributed to the severe degradation of reef cover in nearshore ecosystems. The introduction of pathogen-bearing wastewater into groundwater and the ocean from nearshore injection wells that are close to popular human recreation areas is a hazard. The U.S. National Institutes of Health has identified 30 harmful pathogenic microorganisms including bacteria, viruses and protozoa that may be present in Ma'alaea injection well discharges. A Maui nearshore water testing organization called Hui O Ka Wai Ola has documented elevated levels of turbidity and nitrates in the Ma'alaea area.

Progress toward the realization of a Ma'alaea Regional Wastewater Reclamation System moves the community away from injection wells, toward a 100% irrigation reuse disposal system that eliminates discharges into groundwater or the ocean.

4. Describe the target population to be served; and

The general target population to be served is the Ma'alaea Community and all the stakeholders and beneficiaries of a healthy, sustainable and thriving Aina and Kai.

## 5. Describe the geographic coverage.

Ma'alaea Village is located on the south shore of Maui at the crossroads between the three main population centers of Kahului, Kihei and Lahaina. The Ma'alaea area has a rich history with significant cultural, historic, economic and natural resources. Ma'alaea Harbor is an important economic engine for Maui's visitor industry, generating substantial revenue from ocean-related activities. Ma'alaea Bay is the home of Maui's major environmental leaders: the Hawaiian Islands National Marine Humpback Whale Sanctuary, and Kealia Pond National Wildlife Refuge, as well as the Maui Ocean Center and Pacific Whale Foundation. Ma'alaea Village with its more than two-mile walkable beach and shallow shore is a popular weekend destination for Maui families and fishermen. The nearby "Freight Trains" is a famous surf break. When water is not meeting state water quality standards the waterbody is considered impaired. Of grave concern is Ma'alaea Bay's classification by the US EPA as a 303(d) impaired body of water for aquatic life and recreation such as boating, canoeing, diving, fishing, snorkeling, surfing and swimming, relating to the failure to attain the Hawaii state water quality standards for the following characteristics: chlorophyll a (indicative of algal overgrowth), Enterococcus (indicative of fecal bacteria and other microbes), turbidity (lack of water clarity) and nitrogen compounds (nitrates/nitrites, ammonia and total nitrogen) indicative of harmful overenrichment with nutrients. In 2006, Hawaii Department of Land and Natural Resources published a Status of Maui's Coral Reefs that tells of catastrophic degradation in local reef coverage, noting "In 1972, Ma'alaea coral reefs were described as being, 'striking in their diversity and in the presence of rare coral species.'" The report documented nearshore reef ecosystem decline in Ma'alaea with coral reef cover changing from 50 - 75% in 1995 to only 8% in 2005.

The Pohakea watershed above Ma'alaea Village transports large amounts of sediment into the ocean during stormwater events, while injection well wastewater discharges into the ocean via groundwater. These factors along with legacy agricultural pollutants are understood to be primary contributors to nearshore reef decline in the area.

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

The Service Summary shall include a detailed discussion of the applicant's approach to the request. The applicant shall clearly and concisely specify the results, outcomes, and measures of effectiveness from this request. The applicant shall:

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

The scope of work describes incremental tasks required to advance the Ma'alaea Community effort to build a Ma'alaea Regional Wastewater Reclamation System

The grant request, if approved, will allow the Community to perform four major tasks.

A. Clear the 10 acre Ma'alaea Regional Wastewater Reclamation System site of invasive plant biomass, to install a fire break to protect the Ma'alaea community from wildfire intrusion.

B . Conduct site preparation activities in anticipation of the installation of MRWRS, including fencing, access road and utilities installation.

C. Develop a detailed design 'Plan to Build' to prepare all necessary design work supporting the installation of the Ma'alaea Regional Wastewater Reclamation System.

D. Technical Administration of grant work allocation of 4.8% grant request

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

July 2024 - September 2024

Fire break site clearing

October 2024 - June 2025

Site preparation activities

July 2024 - June 2025

Plan to Build detailed design work

July 2024 - June 2025

Technical Administration

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

Project quality assurance and quality control will be performed by the oversight of the Ma'alaea Village Association, Wastewater Working Group, in consultation with subject matter experts as needed.

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.



Measures of effectiveness for the following proposed deliverables can be quantified as:

- A. Number of fire break acres cleared      Currently 0 / 10 acres proposed
- B. Site preparation activities
  - Fencing linear feet install              Currently 0 / 5000 linear feet proposed
  - Service road linear feet install          Currently 0 / 2500 linear feet proposed
  - Service gate install                          Currently 0 / 1 gate proposed
  - Water service install                        Currently 0 / 1 service proposed
  - Electrical power service install          Currently 0 / 1 service proposed
- C. Detailed design Plan to Build            Currently 0 / 1 Plan to Build proposed
- D. Technical Administration                 Currently 0 / \$1,250,000 proposed

Strict adherence to the site clearing, site preparation and "Plan to Build" engineering study report delivery schedule will be enforced.

#### **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 ([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](#))
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 |
|-----------|-----------|-----------|-----------|-------------|
| 312,500   | 312,500   | 312,500   | 312,500   | 1,250,000   |

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

None

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.

N/A

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.

MVA received a \$6,000 grant from the Maui County Council to add an addendum to the Brown & Caldwell Feasibility Study for a regional Ma'alaee wastewater treatment plant, to add the alternative of connecting to a future County Central Maui wastewater treatment plant or Waikapu Country Town development.

MVA received a \$33,700 Office of Economic Development grant to conduct initial drone and LiDAR site survey and dataset compilations.

MVA received a FY2022 Grant in Aid award for \$250,000 that was used to advance MRWRS preliminary design work in 2023 and 2024.

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

\$45,499.00

## **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.

Attached please find education and work histories for Travis Liggett MS of Reef Power LLC, who will perform Technical Administration duties; and for David Whitney MS PE, of EcoSolutions, LLC, who will perform detailed design duties and oversee site clearing and preparation work.

Travis Liggett MS of Reef Power LLC performed Technical Administration duties for GIA-funded preliminary design work in 2023-24.

David Whitney MS PE of EcoSolutions, LLC performed Preliminary Design Report development and Project Management duties for GIA-funded preliminary design work in 2023-24.

## **2. Facilities**

The applicant shall provide a description of its facilities and demonstrate its adequacy in relation to the request. If facilities are not presently available, describe plans to secure facilities.

MVA is anticipating a written version of a verbal offer of a \$1/year, 55-year lease from Mahi Pono for the 10 acres designated for MRWRS site preparation and installation. See appended site plan.

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

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

The applicant shall describe the proposed staffing pattern and proposed service capacity appropriate for the viability of the request. The applicant shall provide the qualifications and experience of personnel for the request and shall describe its ability to supervise, train and provide administrative direction relative to the request.

The proposed staffing pattern is that the MVA Wastewater Working Group will oversee Travis Liggett in Technical Administration Duties, and David Whitney in Plan to Build development detail design work.

The qualifications and experience of personnel for the request documenting their ability to supervise, train and provide administrative direction relative to the request are included in the attached resumes for Travis Liggett MS and David Whitney MS PE.

### **2. Organization Chart**

The applicant shall illustrate the position of each staff and line of responsibility/supervision. If the request is part of a large, multi-purpose organization, include an organization chart that illustrates the placement of this request.

Lyndon Ibele - MVA President

Tapani Vuori - MVA Vice President, Wastewater Working Group Member

Peter Cannon - MVA Board Member, Wastewater Working Group Member

Travis Liggett MS - Wastewater Working Group Member, Technical Administrator

David Whitney MS PE - Project Manager

### **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.

MVA is a volunteer operated organization so no officers or directors are paid any salary, or any employees.

## **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.

The applicant has no pending litigation.

### **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.

David Whitney, Project Manager, is a licensed Professional Engineer State of Hawaii PE Credential ID 12843-C

### **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.

The grant will not be used to support or benefit a sectarian or non-sectarian private education institution.

### **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.

The plan for sustaining after fiscal year 2024-25 the activity funded by the grant if the grant of this application is received by the applicant for fiscal year 2024-25, but not received by the applicant thereafter is as follows.

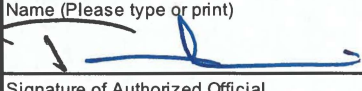
The MVA has a pending FY2024 United States Senate appropriations request for \$1,250,000 to fund a Plan to Build detailed design, and site preparation work.

The Ma'alaea Wastewater Association, a new mutual benefit 501(c)(12) nonprofit organization in formation, is anticipated to receive a \$9,500,000 FY2025 grant from the County of Maui to build the Ma'alaea Regional Wastewater Reclamation System, to complete the work that Grant in Aid funding has started. See included July 2023 Letter of Intent from Mayor Richard Bissen.

## BUDGET REQUEST BY SOURCE OF FUNDS

Period: July 1, 2024 to June 30, 2025

Applicant: Ma'alaea Village Association 501(c)(3)

| BUDGET CATEGORIES                       | Total State Funds Requested<br>(a) | Total Federal Funds Requested<br>(b)   | Total County Funds Requested<br>(c) | Total Private/Other Funds Requested<br>(d) |
|---|------------------------------------|--|-------------------------------------|--|
| <b>A. PERSONNEL COST</b>                |                                    |  |                                     |  |
| 1. Salaries                             | 0                                  |  |                                     |  |
| 2. Payroll Taxes & Assessments          | 0                                  |  |                                     |  |
| 3. Fringe Benefits                      | 0                                  |  |                                     |  |
| <b>TOTAL PERSONNEL COST</b>             |                                    |  |                                     |  |
| <b>B. OTHER CURRENT EXPENSES</b>        |                                    |  |                                     |  |
| 1. Airfare, Inter-Island                | 0                                  |  |                                     |  |
| 2. Insurance                            | 0                                  |  |                                     |  |
| 3. Lease/Rental of Equipment            | 0                                  |  |                                     |  |
| 4. Lease/Rental of Space                | 0                                  |  |                                     |  |
| 5. Staff Training                       | 0                                  |  |                                     |  |
| 6. Supplies                             | 0                                  |  |                                     |  |
| 7. Telecommunication                    | 0                                  |  |                                     |  |
| 8. Utilities                            | 0                                  |  |                                     |  |
| 9 Site Clearing                         | 75,000                             |  |                                     |  |
| 10 Site preparations                    | 426,300                            |  |                                     |  |
| 11 'Plan to Build' detailed design      | 688,700                            |  |                                     |  |
| 12 Technical Administration             | 60,000                             |  |                                     |  |
| 13                                      |                                    |  |                                     |  |
| 14                                      |                                    |  |                                     |  |
| 15                                      |                                    |  |                                     |  |
| 16                                      |                                    |  |                                     |  |
| 17                                      |                                    |  |                                     |  |
| 18                                      |                                    |  |                                     |  |
| 19                                      |                                    |  |                                     |  |
| 20                                      |                                    |  |                                     |  |
| <b>TOTAL OTHER CURRENT EXPENSES</b>     | <b>1,250,000</b>                   |  |                                     |  |
| <b>C. EQUIPMENT PURCHASES</b>           | <b>0</b>                           |  |                                     |  |
| <b>D. MOTOR VEHICLE PURCHASES</b>       | <b>0</b>                           |  |                                     |  |
| <b>E. CAPITAL</b>                       | <b>0</b>                           |  |                                     |  |
| <b>TOTAL (A+B+C+D+E)</b>                | <b>1,250,000</b>                   |  |                                     |  |
| <b>SOURCES OF FUNDING</b>               |                                    | Budget Prepared By:  |                                     |  |
| (a) Total State Funds Requested         | 1,250,000                          | Tapani Vuori   | (808) 561-2022                      |  |
| (b) Total Federal Funds Requested       | 0                                  | Name (Please type or print)  | Phone                               |  |
| (c) Total County Funds Requested        | 0                                  |  | 01/15/24                            |  |
| (d) Total Private/Other Funds Requested | 0                                  | Signature of Authorized Official   | Date                                |  |
| <b>TOTAL BUDGET</b>                     | <b>1,250,000</b>                   | Vice President, Ma'alaea Village Association   |                                     |  |
|   |                                    | Name and Title (Please type or print)  |                                     |  |

## BUDGET JUSTIFICATION - EQUIPMENT AND MOTOR VEHICLES

Period: July 1, 2024 to June 30, 2025

Applicant: Ma'alaea Village Association 501©(3)

| DESCRIPTION<br>EQUIPMENT | NO. OF<br>ITEMS | COST PER<br>ITEM | TOTAL<br>COST | TOTAL<br>BUDGETED |
|--------------------------|-----------------|------------------|---------------|-------------------|
|                          |                 |                  | \$ -          |                   |
|                          |                 |                  | \$ -          |                   |
|                          |                 |                  | \$ -          |                   |
|                          |                 |                  | \$ -          |                   |
|                          |                 |                  | \$ -          |                   |
| <b>TOTAL:</b>            |                 |                  | \$0           |                   |

JUSTIFICATION/COMMENTS:

| DESCRIPTION<br>OF MOTOR VEHICLE | NO. OF<br>VEHICLES | COST PER<br>VEHICLE | TOTAL<br>COST | TOTAL<br>BUDGETED |
|---------------------------------|--------------------|---------------------|---------------|-------------------|
|                                 |                    |                     | \$ -          |                   |
|                                 |                    |                     | \$ -          |                   |
|                                 |                    |                     | \$ -          |                   |
|                                 |                    |                     | \$ -          |                   |
|                                 |                    |                     | \$ -          |                   |
| <b>TOTAL:</b>                   |                    |                     | \$0           |                   |

JUSTIFICATION/COMMENTS:

## BUDGET JUSTIFICATION - CAPITAL PROJECT DETAILS

Period: July 1, 2024 to June 30, 2025

Applicant: Ma'alaea Village Association

| <b>FUNDING AMOUNT REQUESTED</b>   |  |               |                       |                                  |                                      |              |
|---|--|---------------|-----------------------|----------------------------------|--------------------------------------|--------------|
| 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                     | 1,250,000                        | 0                                    | 0            |
| LAND ACQUISITION  | 0  | 0             | 0                     | 0                                | 0                                    | 0            |
| DESIGN  | 0  | 250,000       | 748,700               | 0                                | 0                                    | 0            |
| CONSTRUCTION  | 0  | 0             | 501,300               | 0                                | 9,500,000                            | 0            |
| EQUIPMENT   | 0  | 0             | 0                     | 0                                | 0                                    | 0            |
| TOTAL:  | 0  | 250,000       | 1,250,000             | 1,250,000                        | 9,500,000                            | 0            |
| JUSTIFICATION/COMMENTS: Other sources of funds requested shows a pending United States Senate FY2024 appropriations request for \$1,250,000 to pay for a Plan to Build and site preparation work. |  |               |                       |                                  |                                      |              |



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

Applicant: Ma'alaea Village Association

Contracts Total: 250,000

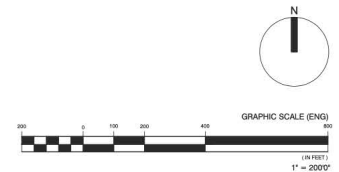
|    | <b>CONTRACT DESCRIPTION</b>                | <b>EFFECTIVE DATES</b> | <b>AGENCY</b> | <b>GOVERNMENT ENTITY<br/>(U.S./State/Hawaii/<br/>Honolulu/ Kauai/<br/>Maui County)</b> | <b>CONTRACT VALUE</b> |
|----|--|------------------------|---------------|--|-----------------------|
| 1  | Grant in Aid MRWRS Preliminary Design Work | 2/13/23-2/29/24        | DOH           | HI State   | 250,000               |
| 2  |  |                        |               |  |                       |
| 3  |  |                        |               |  |                       |
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| 27 |  |                        |               |  |                       |

**DESIGN LEGEND**

- EXISTING TOPO
- PROPOSED TOPO
- FM --- PROPOSED SEWER FORCE MAIN
- RI --- PROPOSED RI IRRIGATION WATER
- PROPOSED FENCE
- PROPOSED GREENBELT
- PROPOSED ALGAE TURF SCRUBBER
- PROPOSED SOLAR PANELS
- IRRIGATION WATER STORAGE POND
- PROPOSED GRAVEL ACCESS ROAD



**PROJECT SITE PLAN**  
SCALE: 1" = 200'



ECOSOLUTIONS LLC is not responsible for safety programs, methods and procedures of construction, or the construction of the design shown on these drawings. Drawings are for use on this project only and are not intended for reuse without written approval from ECOSOLUTIONS LLC.

Drawings are not to be used in any manner that would constitute a statement or liability directly or indirectly to ECOSOLUTIONS LLC.

This drawing is made to show that 20" x 30" it has been reduced and shall be used as a reference only. ECOSOLUTIONS LLC is not liable for any errors or omissions on the drawings or discrepancies from other drawings. They drawings are to be submitted to ECOSOLUTIONS LLC or other party in accordance with the contract.

stamp:  
consultant:  
client contact:

project address:  
**MA'ALAEA VILLAGE**  
**MA'ALAEA ROAD**  
**WAILUKU, HI 96793**

project title:  
**MA'ALAEA REGIONAL**  
**WASTEWATER**  
**RECLAMATION SYSTEM**  
**(MRWRS)**

content:  
**MRWRS**  
**SITE PLAN**

revision: \_\_\_\_\_ date: \_\_\_\_\_

drawn by: **DHW** checked by: **MOL**

Date: **JANUARY 9, 2024**

scale: **AS SHOWN**

sheet no.: **1 OF 1**

project no.: **22-014**

drawing no.: **ECO 1**

**RICHARD T. BISSEN, JR.**  
Mayor

**KEKUHAUPIO R. AKANA**  
Managing Director



**OFFICE OF THE MAYOR**  
COUNTY OF MAUI  
200 SOUTH HIGH STREET  
WAILUKU, MAUI, HAWAII 96793  
[www.mauicounty.gov](http://www.mauicounty.gov)

July 7, 2023

Mr. Tapani Vuori, Vice President  
Ma'alaea Village Association (MVA)  
P.O. Box 2122  
Wailuku, HI 96793

Sent via email to: [tvuori@mauiocenter.com](mailto:tvuori@mauiocenter.com)

**SUBJECT: LETTER OF INTENT TO PROPOSE FUNDING FOR THE  
MA'ALAEA REGIONAL WASTEWATER RECLAMATION  
SYSTEM (MRWRS)**

Dear Mr. Vuori:

The purpose of this letter is to inform you that the County of Maui ("County") intends to propose up to \$9.5 million in funding to the Ma'alaea Village Association, or applicable non-profit entity, to build/operate the new MRWRS, subject to the future terms and conditions imposed by the County, approval by the Maui County Council and availability of funds. Specific terms and conditions imposed by the County are to be determined, but may include future options for the County at its sole discretion to acquire the MRWRS at no cost, relocate the MRWRS to another community, and/or tie in the wastewater transmission system to the new Central Maui Wastewater Reclamation Facility.

Should you require any additional information on this matter, please do not hesitate to contact Deputy Managing Director Josiah Nishita directly at (808) 270-7205.

Sincerely,

A handwritten signature in blue ink that reads "Richard T. Bissen, Jr." in a cursive style.

**RICHARD T. BISSEN, JR.**  
Mayor

cc: Travis Liggett, Technical Administrator, MRWRS  
Maria Zielinski, Budget Director  
Shayne Agawa, Director of the Department of Environmental Management  
Keku Akana, Managing Director

## David H. Whitney – Civil and Environmental Engineer

### EDUCATION & REGISTRATION

- 2008 **Professional Engineer (PE)**, State of Hawaii, Certification No. 12843-C.  
2006 **Professional Engineer (PE)**, State of Vermont, Certification No. 8830.  
2003 **Master of Science**, Department of Civil & Environmental Engineering, University of Vermont. Focus on sustainable wastewater design, natural treatment systems, and phytoremediation.  
1998 **Bachelor of Science**, Civil Engineering, with an emphasis on Environmental Engineering, University of Vermont, Burlington, VT.  
1998 **Engineer-In-Training (EIT)**, Certification No. 2729.

### WORK EXPERIENCE

- May 2005 to Present – **President and Principal Engineer**, of EcoSolutions, LLC which is a design/build company that specializes in low impact design techniques for water resource management, which includes site planning, stormwater treatment, wastewater treatment and water reuse systems.  
June 2003 to December 2006 – **Civil and Environmental Engineer**, at Engineered Solutions, Inc. whose responsibilities include the project management, design and permitting of innovative wastewater treatment systems, environmentally sensitive land development, and low-impact stormwater treatment systems.  
June 2002 to December 2002 – **Project Engineer and Construction Manager**, for the Wetland Research Center (WRC) at the University of Vermont. Responsibilities included project design, coordination, construction management, and facility operation.  
Impact Design', 'The Application of Low Impact Design' and 'Introduction to Brownfield Development'.

### PUBLICATIONS

- Taylor, S.L., Whitney, D.H., McIntosh, A., Fitzgerald, E.P., and Kominami, H. 2009. Balancing Ecosystem Services on a Grass-Based Dairy at Shelburne Farms, Vermont, In Proceedings of American Ecological Engineering Society Annual Meeting, Corvallis, OR  
Whitney, D.H. and Fitzgerald, E.P. 2008. An Advanced Application of a Gravel Wetland for Stormwater Treatment in South Burlington, Vermont, In Proceedings of American Ecological Engineering Society Annual Meeting, Blacksburg, VA  
Whitney, D.H., Liner, M.O., Fitzgerald, E.P. 2007. Application of Engineered Wetlands in Stormwater Management. Stormwater, January/February, 2008.  
Whitney, D., Hayden, N., Hession, W., and Tignor, M. 2001. Developing a constructed wetland center at the University of Vermont. In: Wetland Systems for Water Pollution Control. International Water Association. Buena Vista, FL.  
Whitney, D., Hayden, N., and Rossman, J. 2003. Evaluating an existing subsurface flow constructed wetland in Akumal, Mexico. J. Eco. Eng. 20(1): 105-111.  
Whitney, D., Hayden, J., Hession, W., and Tignor, M. In review. Effects of supplemental aeration on dairy wastewater treatment efficiency in laboratory-scale subsurface flow constructed wetlands. J. Eco. Eng.

Travis A. Liggett  
P.O. Box 790484  
Paia, HI 96779

mobile/text (808) 757-5984  
travis@reefpowermaui.com

*I am a Maui engineer working to solve wastewater problems impacting local reef ecosystems.*

## EDUCATION

City College of San Francisco  
Continuing education  
1999 - 2005

University of Colorado at Boulder  
MS Aerospace Engineering  
2001 - 2003  
Focus on life support & design

University of California at Berkeley  
BS Mechanical Engineering  
1996 - 1998  
Focus on design

San Francisco State University  
Mechanical Engineering  
1995 - 1996

College International de Cannes, France  
French language & culture  
1994 - 1995

Rose-Hulman Institute of Technology  
Mechanical Engineering  
1993 - 1994

## EXPERIENCE

Executive Director  
Ma'alaea Wastewater Association  
July 2023 - Present  
Ma'alaea, Maui, Hawai'i  
[instagram.com/maalaeawastewater](https://www.instagram.com/maalaeawastewater)  
[maalaeawastewater.org](http://maalaeawastewater.org)

I lead and manage this new mutual benefit cooperative nonprofit organization that will oversee the installation and operation of the Ma'alaea Regional Wastewater Reclamation System.

Technical Administrator  
Ma'alaea Village Association Wastewater Working Group  
Ma'alaea Regional Wastewater Reclamation System  
October 2021 - Present  
Ma'alaea, Maui, Hawai'i  
[maalaeavillageassociation.org](http://maalaeavillageassociation.org)

I perform Technical Administrator duties for the Ma'alaea Village Association Wastewater Working Group in our effort to develop a Ma'alaea Regional Wastewater Reclamation System.

Website Developer  
FlushAware.com  
March 2021 - Present  
[flushaware.com](http://flushaware.com)  
[instagram.com/flushaware](https://www.instagram.com/flushaware)

I developed a new online education system called FlushAware.com that teaches Maui Island users the treatment level & destination of their flush, and provides actions for activism & improving life downstream.

President  
Reef Power LLC  
January 2018 - Present  
Maui, Hawai'i  
[reefpowermaui.com](http://reefpowermaui.com)  
[instagram.com/reefpowermaui](https://www.instagram.com/reefpowermaui)

I founded this Maui company dedicated to solving wastewater problems impacting local reef ecosystems. I am developing a pilot to demonstrate a turf scrubber that will harness Hawaiian limu to polish nutrients from reuse water. I am engaged in an effort to pass Bill 52 mandating disinfection of all municipal wastewater in Maui County.

Principal Engineer  
Water Quality Consulting Inc.  
March 2018 - December 2019  
Maui, Hawai'i

I was Principal Engineer for a small environmental services firm specializing in regulatory compliance and policy development, water quality management and aquatic ecosystem restoration. Clients included the Maui Ocean Center, The Hawaiian Aquarium, in Ma'alaea, Maui.

Algae Manager  
Maui Tropical Algae Farm  
May 2012 - October 2012  
Kihei, Maui, Hawaii

I managed elements of microalgae cultivation.

Aerospace Life Science Research Engineer

NASA Ames Research Center

July 2003 - June 2010

Moffett Field, California

[nasa.gov/ames](http://nasa.gov/ames)

[nasa.gov/centers/ames/research/OMEGA/index.html](http://nasa.gov/centers/ames/research/OMEGA/index.html)

[patents.google.com/patent/US8409845](http://patents.google.com/patent/US8409845)

I performed flight systems engineering for the Space Station Biological Research Project (SSBRP) and hardware development for the SSBRP Incubator experimental science payload. I developed prototypes for the Flexible Membrane Commode (FMC) microgravity testing program, and I patented designs & produced the first working prototypes for the Offshore Membrane Enclosures for Growing Algae (OMEGA) Project that converted sewage to jet fuel. I received an Ames Honor Award for my role in inventing and patenting the OMEGA System.

Research Assistant

BioServe Space Technologies, a NASA Commercial Space Center

August 2001 - May 2003

Boulder, Colorado

[colorado.edu/center/bioserve](http://colorado.edu/center/bioserve)

I designed & fabricated elements and performed ground support operations for the nutrient delivery system of the Space Arabidopsis Genomics Experiment (SAGE) microgravity plant growth experiment flown in the Plant Generic Bioprocessing Apparatus (PGBA) aboard the Space Shuttle Atlantis STS-112 mission and the International Space Station in 2002 - 2003.

Teaching Assistant

University of Colorado at Boulder

January 2001 - May 2001

Boulder, Colorado

I was Teaching Assistant for an undergraduate Aerospace Mechanics course.

Internship

Pacific Gas and Electric Company

May 1996 - August 1996

San Francisco, California

[pge.com](http://pge.com)

I performed intern duties such as digitizing old paper schematics of gas distribution networks for the San Francisco high pressure gas pipeline replacement program of the mid-1990's.