

PO Box 10823 Lahaina, HI 96761

January 5, 2018

Chairman Dela Cruz and Honorable Members Senate Committee on Ways and Means State Capitol, Room 208 Honolulu, HI 96813

Napili Beach is a beautiful little bay with a golden sand beach that has been and continues to be a very popular ocean recreation spot on the northwest coast of Maui. Multiple generations of residents and tourists consider this 'their beach' on Maui.

There are two public access points onto the beach, concrete stairs at the south end and a concrete path mid beach. Both are old structures that have recently become unsafe due to severe coastal erosion being experienced in past several years. This has created a public safety issue: a very popular beach (~ 200,000 guests/year) but damaged public access structures. Napili Bay and Beach Foundation is requesting a FY 2019 Grant in Aid to fund safer and more resilient replacements for the public access stairs and path to Napili Beach.

In the just-released report: Hawaii Climate Change Mitigation and Adaptation Commission. 2017. Hawaii Sea Level Rise Vulnerability and Adaptation Report. Prepared by Tetra Tech, Inc. and the State of Hawaii Department of Land and Natural Resources, Office of Conservation and Coastal Lands, under the State of Hawaii Department of Land and Natural Resources Contract No: 64064, the importance of improving sustainability and resilience to accommodate sea level rise threats being experienced in coastal areas is noted. (p. 215) We believe better public access structures will do that for Napili Beach, and want to work with State of Hawaii to accomplish this goal.

Napili Bay and Beach Foundation is committed to the health of our beach and the coastal waters in our Bay, which in turn helps support a healthy economy for the State of Hawaii. Thank you for your consideration of our FY 2019 Grant in Aid proposal.



Pat B. Lindquist, President, Napili Bay and Beach Foundation

cc: Senator Roz Baker; Senator J. Kalani English; Senator Gilbert Kelth-Agaran

We are a non-profit organization formed to protect and improve the health of Napili beach and bay, tax ID

House District(s) 10	Y-NINTH LEGISLATURE	7			
APPLICA	TION FOR GRANTS	Log No:			
Senate District(s)6_ CHAPTER 42F, I	HAWAII REVISED STATUTES	For Legistature's Use Only			
Type of Grant Request:					
GRANT REQUEST - OPERATING	☐ GRANT REC	QUEST - CAPITAL			
"Grant" means an award of state funds by the legislature activities of the recipient and permit the community to be "Recipient" means any organization or person receiving	enefit from those activities.	recipient, to support the			
STATE DEPARTMENT OR AGENCY RELATED TO THIS REQUEST (LEAVE BLAI STATE PROGRAM I.D. NO. (LEAVE BLANK IF UNKNOWN):	NKIF UNKNOWN):				
APPLICANT INFORMATION: Legal Name of Requesting Organization or Individual: Napili Bay and Beach Foundation, Inc.	2. CONTACT PERSON FOR MATTERS IN Name PAT B. LINDQUIST				
Dba: Napili Bay and Beach Foundation	Title President				
Street Address: c/o Gregg Nelson, GM Napili Kai Beach Resort 5900 Lower Honoapi'ilani Road Lahaina, HI 96761	Phone # 650-303-3150				
	Fax #805-687-5540	<u>) </u>			
Mailing Address: PO Box 10823, Lahaina, HI 96761	E-mail pblindquist@gmail.com	1			
	7. AMOUNT OF STATE FUNDS REQUEST	ED:			
	FISCAL YEAR 2019: \$161,000	0.00			
4. FEDERAL TAX ID #:	- (
5. STATE TAX ID#:	-				
8. STATUS OF SERVICE DESCRIBED IN THIS REQUEST: NEW SERVICE (PRESENTLY DOES NOT EXIST) EXISTING SERVICE (PRESENTLY IN OPERATION)	SPECIFY THE AMOUNT BY SOURCES OF AT THE TIME OF THIS REQUEST: STATE \$_ NONE FEDERAL \$_ NONE COUNTY \$ NONE	F FUNDS AVAILABLE			

TYPE NAME & TITLE OF AUTHORIZED REPRESENTATIVE:

PAT B. LINDQUIST , PRESIDENT NAMES THE

JANUARY 2, 2018

PRIVATE/OTHER \$__NONE_

DATE SIGNED

Application for Grants

Please check the box when item/section has been completed. If any item is not applicable to the request, the applicant should enter "not applicable".

I. 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: Napili Bay and Beach Foundation, Inc. (NBBF) is a 501 (c) 3 non-profit organization formed in late 2006 with a mission of protecting and improving the health of Napili beach and bay. We are community-based with solid participation and support from the resorts and businesses comprising the Makai neighborhood at Napili. Major accomplishments of our Foundation since incorporation include: fund raising, planning and implementation of two large infrastructure remediation projects; helping create and underwrite an excellent DOH-approved Water Quality monitoring program by Hui O Ka Wai Ola.
- Both of these access points are the main entrances for public beach guests.

 Resort guests on the bay have access from their properties onto the beach, but the many local residents and tourists who love the sandy beach, snorkeling, paddle boarding, surfing, swimming, and other ocean activities must 'get to' the beach on one of these two pathways, unless they transit through the grounds of Napili Kai Resort at the north end of the bay. Estimated numbers of visitors on Napili beach in 2016 = 200,000. Of these, approximately 50,000 were visits by Maui residents and the remaining by tourist guests. At the south end of the beach, the entrance transits a basalt headland down to the beach, so providing a carefully engineered and constructed path and stairway is essential for safety. At mid-beach, the concrete pathway has become mossy and slippery when wet from a nearby public beach shower and in the rainy season. Erosion at the beach terminus of this structure is also creating a potential tripping hazard for visitors leaving the beach. Better materials now exist to make these entrances SAFER and more environmentally robust.

Describe the target population to be served:

Many local West Maui residents know, love and frequent Napili Beach, for morning snorkeling and swimming, for sunset surfing and boogie boarding, for a day at the beach with family. In recent years, more and more of our beach guests have been tourists from nearby West Maui beaches that have suffered such severe erosion (e.g. Kahana, Honokowai) that there are no beaches left there. Our Napili roadsides are crowded due to parked cars with beach goers from 'down the road'. We are also getting beach guests who have seen Napili beach rated as a 'beautiful beach and bay' in Travel magazines or on Travel websites. The people who have lived, worked, or visited Napili Beach regularly over many (20 or 30 years), have testified that the beach has never been so crowded and busy as it has been in the past two or three years. Visitors to Napili Beach range from international tourists on vacation to Maui residents.

5. Describe the geographic coverage:

Napili Bay and Beach is on the northwest coast of Maui, in the Kahana watershed region of the Northwest Maui Priority Area, also designated in April 2015 as a Resilient Land and Waters Initiative site by DOI, EPA and NOAA. Napili beach is ~ 5 miles north of Ka'anapali beach, and is bordered on the north by Kapalua Beach. The GPS coordinates are 20° 59' 44.11" N, 156° 40' 00.82" W.

II. 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 encompasses (a) removal and replacement of public access stairs at south end of the beach, as well as (b) removal and replacement of concrete public access path at mid-beach. Please see supporting photos appended below.

(a) South Beach Access

- a.1. Design: NBBF will contract with a licensed and bonded landscape architect to develop best design for entry stairs to the south end of Napili Beach from the existing public access path. "Best" is defined here as safest for all beach visitors, and causing least damage to the coastal headland and beach below it.
- a. 2. Conceptual designs will be presented for approval to Napili community.
 a.3. NBBF will contract with a licensed and bonded structural engineer to prepare all necessary construction drawings.
- a.4. NBBF will contract with a licensed, bonded construction firm to demolish/remove old concrete stairs and build new public access structure, according to specifications and following DLNR and Maui County BMPS. Construction contractor will also be responsible for obtaining Maui County (e.g. Special Management Area, SMA; Shoreline Setback Assessment, SSA) and State DLNR (Right Of Entry) permits.

(b) Mid Beach Access

- b.1 NBBF has consulted with Tara Miller Owens, Sea Grant Coastal Geologist, on appropriate designs for dune walkover/ boardwalk approach. We will contract with a civil engineer for drywell construction drawings per Maui County specifications for public beach shower runoff control at mauka end of pathway. b.2 Final design will be approved by Napili community.
- b.3 NBBF will be responsible for obtaining Maui County (e.g. Special Management Area, SMA; Shoreline Setback Assessment, SSA) and State DLNR (Right Of Entry) permits
- b.4. NBBF will hire a contracting firm to do demolition and removal of existing concrete/asphalt path using BMPs as instructed by DLNR and Maui County. b.5. Professional TREX contractor will construct and install the dune walkover/boardwalk to design specs and according to BMPs set by DLNR and Maui County. They will also install the drywell near beach shower.
- 2. Provide a projected annual timeline for accomplishing the results or outcomes of the service:

Pending successful approval of funding through this State Grant in Aid, we anticipate completion of both improved public access routes during Fiscal Year 2019, working as weather allows.

3. Describe its quality assurance and evaluation plans for the request. Specify how the applicant plans to monitor, evaluate, and improve their results:
In terms of Quality Assurance, all contractors hired for this project will be licensed and bonded firms with extensive experience performing many sensitive shoreline projects in conjunction with the DLNR and the OCCL. We will hire a construction firm that is certified do to Trex Pro Installations, in order to safeguard any future repairs and maintenance on these structures. Further, NBBF will continue to cover costs of ongoing Water Quality monitoring by Hui O Ka Wai Ola to ensure no negative effects of these construction projects on health of our bay/reef life.

One of the desired outcomes for these new structures is that they are less prone to undercutting/erosion damage due to beach erosion (seasonal and ongoing) processes. This is of utmost importance for safe public access to the beach. Photographs will be taken before construction, during construction, and upon completion, to document 'as built' condition. Further, construction drawings can be provided, with material specifications to document 'as built' conditions.

4. \(\sum \) 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.

Effectiveness will mean: ability to safely convey public beach visitors to the south end and middle of Napili Beach. We can provide photographs taken during Summer and Winter high tourist seasons for an agreed-to reasonable number of years following installation of these new structures. Effectiveness will also mean that the structures are engineered to withstand wave forces and beach erosion to which they will be exposed, minimizing any loss of structural integrity. Photographs, twice yearly (Summer and Winter swells) can be submitted over the course of an agreed-to number of years.

III. Financial

Budget

- 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)
- The applicant shall provide its anticipated quarterly funding requests for the fiscal year 2019.

Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total Grant
\$41,000.00	\$50,000.00	\$40,000.00	\$30,000.00	\$161,000.00

No other sources of funding are being sought for this project. NBBF will apply to Hawaii Tourism Authority Aloha Aina Program if the State Grant in Aid is not awarded.

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:

NBBF has not received any state or federal tax credits other than being exempt from paying taxes on federal grant monies received and expended for projects which protect and improve the health of Napili beach and bay.

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 2019 for program funding:

NBBF currently has a federal grant from National Fish and Wildlife (NFWF)/National Oceanic and Atmospheric Association (NOAA) of \$25,000. for purposes of doing all engineering plans, specifications and cost estimates, as well as obtaining permits for improvements to Napili Place, a hui road that provides public beach access to the top of the south headland at Napili Bay. Napili Place has unimproved parking spaces, as well as paved hui road and adjoining resort parking lots that are source of polluted runoff into Napili Bay. This project is separate from the projects proposed here for State Grant in Aid funding.

In 2013, NBBF was awarded a two year grant from NFWF/NOAA of \$28,000. to help defray expenses for extensive removal of invasive trees/shrubs from an ephemeral stream, makai of desilting basin, Napili 4-5, and replanting it with native streambed plantings. A concurrent grant from Hawaii Community Foundation/NOAA of \$20,200. was also used to fund this project and to support initiation of Water Quality monitoring and Marine Biology monitoring programs at Napili Bay.

A complete listing of our government grants/contracts can be found on page 9 of this application.

6. The applicant shall provide the balance of its unrestricted current assets as of December 31, 2017.

Our current assets consist of a bank account at First Hawaiian Bank. Funds are used for operating expenses (liability insurance, bank and post office costs), and for program support (meeting matching obligations for Federal grants, creating educational materials, financing water quality monitoring and marine biology monitoring programs). The balance of unrestricted current assets as of 12.31.17 is \$50,976.10.

IV. 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.

Napili Bay and Beach Foundation has established a solid track record of identifying issues which threaten the health of the beach and bay at Napili, Maui, then raising federal and non-federal funds to mitigate these threats through infrastructure changes or by implementation of environmental monitoring programs. The Board is comprised of local residents who are General Managers of the resorts along Napili Beach (who are very aware of the threats and issues addressing those threats), a retired engineer who brings technical expertise to the water quality and marine biology monitoring programs), and a retired Program Manager with science background who is capable of managing projects with professional contractors, federal and non-federal granting agencies, county and state department heads. Since 2011, we have

- replaced a non-functional outlet valve in a desilting basin above the bay,
- · removed invasive streambed plants and restored with native plants
- funded and implemented DOH approved, ongoing water quality monitoring program for Napili Bay.

Details of these accomplishments:

1. Using funds from 2011 Federal grants, local granting agencies, and private donors, we successfully worked with Federal, State and County agencies to have a fully functional outlet valve designed and installed in Napili 4-5 desilting basin above the south end of Napili beach. The old outlet valve had disappeared in the open position, buried in silt, thus resulting in repeated runoff of heavily sedimented water into Napili Bay from 1993 to early 2011. A copy of the letter from David Goode, Dept. of Public Works Maui, attests to our success (Attachment 3.0)

- 2. A final report from the NFWF/NOAA grant (Fall, 2015) can be found as Attachment 4.0. This report captures results of our second major infrastructure project in which invasive Albizia trees, and shrubs were removed/replaced by native streambed plantings in the ephemeral stream makai of desilting basin, Napili 4-5. This project was funded by two Federal grants, and supported by our matching efforts and dollars.
- 3. Our initiation of a regular Water Quality monitoring program at Napili Bay fostered growth, under NBBF Board of Directors member Dana Reed's able leadership, into a HIDOH approved program (Hui O Ka Wai Ola) that operates at multiple sites on the West Coast, and more recently, on the South Shore of Maui. NBBF continues to support all WQ sampling at Napili Bay with private funds.

For all of these projects, we have worked with professional subject matter experts who bring the technical expertise needed for the projects undertaken.

2. X 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.

NBBF has no facilities of its own and no plan to secure facilities. The resort members of the Board of Directors provide space for team and community meetings and educational activities we sponsor.

V. Personnel: Project Organization and Staffing

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.

NBBF shall contract with a landscape architect firm for design of the south beach entrance from basalt headland to beach, with a structural engineering firm for construction drawings of the selected design, and with a construction firm for appropriate permits as well as demolition and installation of new south beach public entrance. The process to be followed for retaining contractors will be as follows: NBBF will be responsible for drafting and issuing the RFP to licensed, bonded companies to obtain competitive bids, will hire the company with 'best fit' for the project, will support, as needed, the interface between county and state permitting agencies and engineering firm, will be responsible for paying all invoices.

NBBF will issue an RFP to TREX Pro certified construction companies, for replacement of the concrete public access path at mid-beach. We will hire the best qualified and best fit construction company to match our desired outcomes and budget expectations for this purpose. NBBF will support the construction effort by applying for county and state permits needed, by providing interface with the resorts adjoining the public access points, will pay all contractor invoices and will do periodic site visits to ensure that plans and actuals are being met.

There will be no NBBF 'staffing': project staffing will be provided by the firms under contract. This is a model which has worked well for us in our previous, successful infrastructure improvement projects:

- 1. 2011 replacement of functional outlet valve and installation of grassed waterway at desilting basin, Napili 4-5. Arita Poulson, contractors.
- 2. 2014 removal of invasive trees, shrubs from ephemeral stream to Napili Bay, and replacement with native streambed plantings. Convergent Conservation, contractor.

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.

As for our previous infrastructure projects, NBBF will have one 'point of contact' person from our six person Board of Directors for these contracts, with support provided, as needed, from the other NBBF Board of Director members.

The applicant shall provide the annual salaries paid by the applicant to the three highest paid officers, directors, or employees of the organization by position.

NBBF is an all volunteer organization; there are no salaried positions. Requested funds will be used to compensate contractors, per terms of contracts.

VI. Other

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

No litigation past or pending.

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

Resumes for Dana Reed (NBBF Director and head of WQ Monitoring program Hui O Ka Wai Ola), as well as for Pat Lindquist (NBBF President and Project Planning lead) are attached to this application. (See attach. 5.0 and 6.0)

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The following contractors are being considered for work on this project, pending formal bids and selection:

- Bill Mitchell, Principal Landscape Architect, Hawaii Land Design, LLC
- Alana Scott, Structural Engineer & Civil Engineer State of Hawaii, Principal of Scott Engineering, LLC
- Arita Poulson, General Contracting, Puunene, HI https://www.aritapoulson.com
- Vares Contracting, certified TREX Pro installer, License #ABC 34423, Wailuku, HI

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 <u>Article X, Section 1, of the State Constitution</u> for the relevance of this question.

Not Applicable

The applicant shall provide a plan for sustaining after fiscal year 2018-19 the activity funded by the grant if the grant of this application is:

- (a) Received by the applicant for fiscal year 2018-19, but
- (b) Not received by the applicant thereafter.

NBBF will provide yearly update photos of public using new beach access structures during FY 2019, 2020, 2021.

NBBF does not expect further funding for these structures beyond construction completion.

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, 2017.

See Attachment 1.0

6. Declaration Statement

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

7. Number 2 Public Purpose

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

This grant will be used for the sole purpose of providing improved, safer public access structures at Napili Beach, Maui.

8. Supporting Photographs

a. Aerial View of Public Access points at Napili Beach, Maui



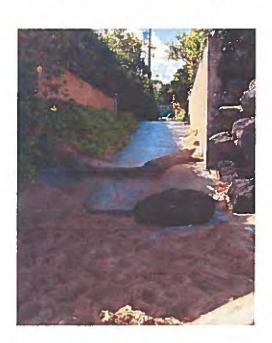
b. Three photos of heavily damaged public beach entry stairs at Napili Beach, Labor Day, 2017







c. Two photos of erosion undercutting public beach access path, June, 2017





BUDGET REQUEST BY SOURCE OF FUNDS

Period: July 1, 2018 to June 30, 2019

Applicant: _ Napill Bay and Beach Foundation, Inc.

	DGET TEGORIES	Total State Funds Requested (a)	Total Federal Funds Requested (b)	Total County Funds Requested (c)	Total Private/Other Funds Requested (d)
Α.	PERSONNEL COST 1. Salaries	0	0	0	
	2. Payroll Taxes & Assessments	0	0	0	
	3. Fringe Benefits	0	0	0	
	TOTAL PERSONNEL COST		0	0	
В.	OTHER CURRENT EXPENSES				
	Airfare, Inter-Island	0	0	. 0	
	2. Insurance	0	0	0	
	3. Lease/Rental of Equipment	0	0	0	
	Lease/Rental of Space	0	0	0	
	5. Staff Training	0	0	0	
	6. Supplies	0	0	0	
	7. Telecommunication	0	0	0	
	8. Utilities	0	0	0	- (
	9				
	10 SOUTH BEACH STAIR REPLACEMENT	100000000000000000000000000000000000000			
	11 Design , permits	14,000	0	0	
	12 Structural engineering contractor	20,000	0	0	
	13 Construction contractor	50,000	0	0	
	14 MID BEACH PATH REPLACEMENT				
	15 Plans, permits, civil engineering	7,000	0	. 0	
	16 Construction contractor	70,000			
	17				
	18				
	19				
	20				
	TOTAL OTHER CURRENT EXPENSES	161,000		19.64	
C.	EQUIPMENT PURCHASES	0	0	0	0
D.	MOTOR VEHICLE PURCHASES	0	0	0	0
E.	CAPITAL				
TOTAL	. (A+B+C+D+E)	161,000			
SOUR	CES OF FUNDING (a) Total State Funds Requested		Budget Prepared E	1	350-303-3150
	(b) Total Federal Funds Requested	0	Name (Please type or pr	int)	Phone
	(c) Total County Funds Requested	0			lan 2 2018
	(d) Total Private/Other Funds Requested		Signature of Authorized		Jan. 2, 2018 Date
_	(a) Total Filvaterorier Fusius Requested			1	Date
TOTAL	PUDGET		Pat B. Lindquist, Preside		
TOTAL BUDGET			Name and Title (Please	type or print)	

BUDGET JUSTIFICATION - PERSONNEL SALARIES AND WAGES

Period: July 1, 2018 to June 30, 2019

Applicant: __Napili Bay and Beach Foundation, Inc. _

POSITION TITLE	FULL TIME EQUIVALENT	ANNUAL SALARY A	% OF TIME ALLOCATED TO GRANT REQUEST B	TOTAL STATE FUNDS REQUESTED (A x B)
APPLICABLE - NO NBBF PERSONNEL				s -
				\$ -
				\$.
				\$ -
				\$
			1	\$
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				\$
				\$
				\$
				\$
				\$
TOTAL:				

BUDGET JUSTIFICATION - EQUIPMENT AND MOTOR VEHICLES

Period: July 1, 2018 to June 30, 2019

Applicant: _NAPILI BAY AND BEACH FOUNDATION_

DESCRIPTION EQUIPMENT	NO. OF	COST PER ITEM	OTAL	TOTAL BUDGETED
NONE - Not applicable			\$ -	
			\$ -	
			\$ -	
			\$ 	
	11		\$ 	
TOTAL:				

DESCRIPTION OF MOTOR VEHICLE	NO. OF VEHICLES	COST PER VEHICLE	TOTAL COST	TOTAL BUDGETED
NONE - Not applicable			\$ -	
			\$ -	
			\$ -	
			\$ -	
			\$ -	
TOTAL:				

JUSTIFICATION/COMMENTS:

BUDGET JUSTIFICATION - CAPITAL PROJECT DETAILS

Period: July 1, 2018 to June 30, 2019

Applicant: Napili Bay and Beach Foundation, Inc.

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: 2016-2017	FY: 2017-2018	FY:2018-2019	FY:2018-2019	FY:2019-2020	FY:2020-2021
PLANS, PERMITS	0	0	4000	0	0	0
STRUCTURAL AND CIVIL ENGINEERING	0	0	25000	0	. 0	0
DESIGN	0	0	12000	0	0	0
CONSTRUCTION	0	0	120000	0	0	0
EQUIPMENT	0	0	0	0	0	0
TOTAL:	0	0	161000	0	0	0

JUSTIFICATION/COMMENTS Funding requests are for contracted planning, design, and construction of two public beach access structures at Napili Beach, Maui. All personnel, equipment and supply costs are included in contracts to be awarded..

GOVERNMENT CONTRACTS, GRANTS, AND / OR GRANTS IN AID

Applicant: _Napili Bay and Beach Foundation _____ Contracts Total: 121,739

	CONTRACT DESCRIPTION	EFFECTIVE DATES	AGENCY	GOVERNMENT ENTITY (U.S. / State / Haw / Hon / Kau / Mau)	CONTRACT VALUE
4	Storm Runoff Remediation in Napili Bay -				
1	desilting basin outlet valve	1/2010 - 2/2011	NFWF/NOAA	U.S.	18,000
2		2011	Tri Isle RC&D	Maui	6,600
3		11/2011 - 1/2012	NBWMBF	N/A	12,000
4					
5	Streambed Repairs to reduce silty runoff at Napili Bay	8/2013 - 5/2015	NFWF/NOAA	U.S.	28,000
6	Total Day	3/2012 - 11/2014	HCF/NOAA	U.S./Hawaii	20,200
7		12/2011 - 1/2012	HKWMCF	N/A	9,939
			Tri Isle RC&D	Maui	2,000
8		2017	TIT ISIC TOOLD	INICIAI	2,000
9	Reducing Land-Based Pollutants to Napili Bay's Reef	9/2016 - 9/2018	NFWF/NOAA	U.S.	25,000
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DECLARATION STATEMENT OF APPLICANTS FOR GRANTS PURSUANT TO CHAPTER 42F, HAWAI'I REVISED STATUTES

The undersigned authorized representative of the applicant certifies the following:

- The applicant meets and will comply with all of the following standards for the award of grants pursuant to Section 42F-103, Hawai'i 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;
 - 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.
- If the applicant is an organization, the applicant meets the following requirements pursuant to Section 42F-103, Hawai'i 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.
- If the applicant is a non-profit organization, it meets the following requirements pursuant to Section 42F-103, Hawai'i Revised Statutes:
 - a) Is determined and designated to be a non-profit organization by the Internal Revenue Service, and
 - Has a governing board whose members have no material conflict of interest and serve without compensation.

Pursuant to Section 42F-103, Hawai'i 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.

Napili Bay and Beach For Typed Name of Individual or			1/2/0
(Signature)	/	(Date)	1418
_Pat B. Lindquist		President	
(Typed Name)		(Title)	
Rev 12/2/16		2016	Application for

Grants



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

NAPILI BAY AND BEACH FOUNDATION INC.

was incorporated under the laws of Hawaii on 08/01/2006; 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: December 08, 2017

Catanit. Owal Color

Director of Commerce and Consumer Affairs

INTERNAL REVENUE SERVICE P. D. BOX 2508 CINCINNATI, OH 45201

Date DEC 0 2 2006

HAPILI BAY AND BEACH FOUNDATION INC C/C ALEX PATEL 16830 VENTURA BLVD STE 160 ENCINO, CA 91436-1711 DEPARTMENT OF THE TREASURY

#CI

Employer Identification Number

DIN.

Contact Person: DEL TRIMBLE

Contact Telephone Number: (877) 829-5500

Accounting Period Ending: DECEMBER 31

Public Charity Status. 170(b)(1)(A)(vi) Form 990 Required:

YES Required:

Effective Date of Exemption: AUGUST 1, 2006

Contribution Doductibility YES

Advance Ruling Ending Date: DECFMBER 31, 2010

Dear Applicant:

We are pleased to inform you that upon review of your application for tax exempt status we have determined that you are exempt from Foderal income tax under section 501(c)(3) of the Internal Revenue Code. Contributions to you are deductible under section 170 of the Code. You are also qualified to receive Lax deductible bequests, devises, transfers or gifts under section 2055, 2106 or 2522 of the Code. Because this letter could help resolve any questions regarding your exempt status, you should keep it in your permanent records.

Organizations exempt under section 501(c)(3) of the Code are further classified as either public charities or private foundations. During your advance ruling period, you will be treated as a public charity. Your advance ruling period begins with the effective date of your exemption and ends with advance ruling ending date shown in the heading of the letter.

Shortly before the end of your advance ruling period, we will send you Form 8734, Support Schedule for Advance Ruling Period. You will have 90 days after the end of your advance ruling period to return the completed form. We will then notify you, in writing, about your public charity status.

Please sec enclosed Information for Exempt Organizations Under Section 501(c)(3) for some helpful information about your responsibilities as an exempt organization.

If you distribute funds to other organizations, your records must show whether they are exempt under section 501(c)(3). In cases where the recipient organization is not exempt under section 501(c)(3), you must have evidence the funds will be used for section 501(c)(3) purposes

Letter 1045 (DO/DG

ALAN M ARAKAWA Mayor

DAVID C GOODE Director

ROWENA M DAGDAG-ANDAYA Deputy Director

Telephone (808) 270-7845 Fax (808) 270-7955



COUNTY OF MAUI DEPARTMENT OF PUBLIC WORKS 200 SOUTH HIGH STREET, ROOM NO. 434 WAILUKU, MAUI, HAWAII 96793

September 29, 2011

RALPH NAGAMINE LS PE Development Services Administration

> CARY YAMASHITA PE Engineering Division

BRIAN HASHIRD, PE Highways Division

Ms. Pat Lindquist
Napili Bay and Beach Foundation, Inc.
P. O. Box 10823
Lahaina, Maui, Hawaii 96761

Dear Ms. Lindquist:

On behalf of the County of Maui Department of Public Works, I would like to take this opportunity to thank you and the Napili Bay and Beach Foundation for the time, effort, and work invested into the Napili 4/5 Outlet Modification project.

We also thank you for working with our Department, the Natural Resources Conservation Service and the West Maui Soil and Water Conservation District in developing solutions for mitigating storm runoff damage in the area.

The Department commends your organization's efforts in protecting neighboring downstream properties, our shoreline, and our reef areas. The installation of the educational sign near the project site will also inspire community members, and most especially the youth, to protect our natural resources by keeping our stream beds clean and clear. Congratulations!

Sincerely

DAVID C GOODE
Director of Public Works

DCG:RMDA:jso s:\rowena\plindquist_napili 4_5 outlet modification thanks



Final Programmatic Report Narrative

Instructions: Save this document on your computer and complete the narrative in the format provided. The final narrative should not exceed ten (10) pages; do not delete the text provided below. Once complete, upload this document into the online final programmatic report task as instructed. Please note that this narrative will be made available on NFWF's Grants Library and therefore should provide brief context for the need of your project and should not contain unexplained terms or acronyms.

1. Summary of Accomplishments

In four to five sentences, provide a brief summary of the project's key accomplishments and outcomes that were observed or measured. This can be duplicative to the summary provided in the reporting 'field' or you can provide more detail here.

Our grant proposal included three long term conservation outcomes:

- a) Further reduction of sediment laden runoff into Napili Bay by stabilizing the badly eroded streambed, 'Napili Kahawai'
- b) Protecting and encouraging viability of coral reef benthic habitat at Napili Bay
- c) Educating community members as to best management practices regarding the streambed and the benthic habitat
- a) We achieved the first outcome by cleaning out debris, removing all invasive woody plants that have been causing streambank/streambed erosion, and replanting these areas with native plants suitable for erosion control of streambank. Ongoing plant maintenance and weeding activities are being funded by Napili Bay and Beach Foundation (NBBF) with non-Federal money.
- a & b) We know that the streambanks are no longer eroding, based on sediment/turbidity monitoring following some very heavy Winter storms in 2015. Those data were shown in an interim report (February, 2015), and new data gathered this Summer are shown in the Project Documents section of this final report, "P.D. 1 Nutrient Napili Bay".
- c) Through a training workshop for Napili resort staff members and posts on our Facebook page, we have educated the community regarding the relationship of damage to the streambed and resulting damage to the reef.

2. Project Activities & Outcomes

Activities

- Describe the primary activities conducted during this grant and explain any discrepancies between the
 activities conducted from those that were proposed.
 - a) We proposed to obtain necessary State and County permits, permissions from local landowners, and contract removal of all woody invasive, non-native plants from 410 linear feet of the ephemeral streambed we have called "Napili Kahawai" (Napili Stream, in Hawaiian). We proposed to either trim the very large Albizia trees (major cause of bank loading and erosion on southern streambank), or, if we could raise an extra \$9,000.00 of community funds, we would have the trees removed. The latter action was deemed a better outcome by our contractor and by Sustainable Resources Group International, Inc. (srgii), our consultants on the restoration plan for this stream bed.

We <u>accomplished</u> all of these actions, including raising the extra funds from the neighboring property owners and having the Albizia trees removed.

b) We proposed to expand the scope of our Water Quality (WQ) monitoring program so that levels of common nutrient runoff pollutants (ammonium, total phosphorus, nitrates/nitrites) for which Hawaii's Department of Health Clean Water Board (HIDOH CWB) has listed Napili as 'out of compliance' with Clean Open Coastal Water standards could be assessed.

This activity did not proceed as we had envisioned (twice yearly monitoring through Q3, 2015). It has, however, developed into a more robust program as a local group (Maui Nui Marine Council) has worked with HIDOH CWB to develop standardized protocols, Quality Controls, and prepare volunteer training protocols. This will enable regular water quality (WQ) monitoring of these and other nutrient pollutants at more frequent intervals and at more sites, particularly in West Maui waters. By end of our grant cycle (August 20, 2015), thirty samples had been taken from 3 different locations in the bay, to help us establish baseline levels of nutrients which can cause damage to our coral reef habitat. Data from this work can be found in the Project Document Section of this report, "P.D. 1 Nutrient – Napili Bay" and provide us with a good baseline against which we can measure progress toward clean 'Open Coastal Water' standards set by HIDOH and EPA. In this report, the Open Coastal Water standards that Napili Bay should achieve are shown by the yellow baselines on the Geometric Mean tables. What you can see is that we have more work to do for several of these parameters. Also note the large differences between DOH measurements and our measurements for Ammonium and Nitrates/Nitrites. Differences in sampling methodology are a known variable; further discussions as to possible reasons for these discrepancies are ongoing.

I am pleased to report that the equipment we purchased for turbidity, salinity, and pH testing is being used at twelve other monitoring sites on the West Coast of Maui. Dana Reed, our Water Quality project leader, is now the Chair of Maui Nui Clean Water Committee, and has also reported that our funding of the nutrient monitoring has provided a great beta test case upon which other such monitoring of Maui coastal waters will be built.

c) Our third goal was to educate community members as to best management practices regarding the streambed and our benthic habitat at Napili Bay. We proposed to achieve this through training workshops, or by providing scholarships to workshops being offered by West Maui Watershed Ridge2Reef program.

We presented a training workshop on May 6, 2015, attended by 14 staff members from Napili bay resorts, one BOD member from neighboring bay (Kahana) and 4 other Napili stakeholders. The curriculum was prepared and presented by myself, Tova Callender and Liz Foote. A flyer with purposes and outline of the workshop and a copy of the Powerpoint presentation I made can be found in the Project Documents (P.D. 2, 3) section of this report.

This workshop was well received by participants and has led to participants' offers of help for maintaining the streambed plantings and for monitoring WQ and marine biology in Napili Bay.

Our Facebook page has also become an effective educational tool (see further details in **Dissemination** section, below).

Outcomes

 Describe progress towards achieving the project outcomes as proposed, and briefly explain any discrepancies between your results compared to what was anticipated.

As indicated above, our streambed cleanout/restoration of flora project was completed successfully and, to this date (18 months after completion), there have been no breakthrough muddy runoff events into the bay, even following some very heavy storms. We consider this a complete and successful achievement of our first proposed outcome.

Our water quality monitoring program achieved the goals of determining effectiveness of remediation to the streambed/streambanks as a means of mitigating sedimented runoff into the bay, onto the reef. Although several student training days were held, the best data were generated by a local adult who took the first training course we offered and then took the initiative to gather samples / assay them for turbidity. She was able to monitor after particularly heavy rainfall events that would have sent muddy runoff into the bay, in

former years (we have photos back to 1993). Thus, our initial plan of training local high school students and doing the water quality monitoring twice yearly has been discontinued in favor of a more effective methodology which is more spontaneous, but 'owned by' a local WQ leader (Dana Reed) who receives a stipend provided by Napili Bay and Beach Foundation. What you can see in the data presented in this report is that the south end of Napili Bay continues to have the highest levels of turbidity, even though no muddy water is running into the bay. Several explanations that don't involve sedimented runoff are possible, and are being/will continue to be evaluated.

We also outlined and had initiated discussions with a WQ expert here in Maui, to expand the monitoring to include nutrient pollutants. That effort was overtaken by a larger effort on Maui to develop a more cohesive and comprehensive WQ monitoring program, described in the previous section, (b). We are very pleased with the results of this 'different approach', and are supporting our WQ coordinator's efforts in this regard. We anticipate that the broader program will involve local volunteers as the program grows. Our expectation is to continue to support this activity and future efforts to mitigate causative actions/agents, which can damage the reef here at Napili Bay.

 Provide any further information (such as unexpected outcomes) important for understanding project activities and outcome results.

The Water Quality results, in terms of turbidity/sedimentation after heavy storms has been dramatic enough to be able to say, WE HAVE IMPROVED THIS PARAMETER OF BAY HEALTH. However, HIDOH did not do WQ sampling at Napili bay for their 2014 report on impaired waters, so that part of this goal was not achieved.

However, we are not, at this time, able to make any scientific conclusions about improvements to the benthic habitat. We've seen positive signs (fish species not seen in Napili for a number of years; diversity in species, as observed by Fish Identification Network (FIN) volunteers, and fish keikis (babies). However, the time it takes and the amount of data needed to draw substantiated conclusions about changes to the health of Napili Bay's benthic habitat have not been achieved – really cannot be achieved in the less than two year period of this grant cycle. The data collected have been entered into REEF.org database, but our coordinator has also kept detailed records in an EXCEL spreadsheet, comparing current findings with those made in 2008 (AECOS). This spreadsheet can be seen in the Project Documents (P.D. 4) section of this report. Discussions on getting expert help for coral species identification have begun.

3. Lessons Learned

Describe the key lessons learned from this project, such as the least and most effective conservation practices or notable aspects of the project's methods, monitoring, or results. How could other conservation organizations adapt similar strategies to build upon some of these key lessons about what worked best and what did not?

Things we did WELL, which had a positive effect on outcomes:

- We had an expert consultant carefully outline what needed to be done to remediate the badly eroded streambed/streambanks
- We had local experts do training of marine biology and water quality monitoring techniques
- We got VERY LUCKY to engage community members with a real love of the environment to head up the streambed restoration and our Water Quality and Marine Biology monitoring programs. The stipends we provide do not cover the amount of time and effort they put forth on behalf of our goal to protect and improve Napili Bay health, but hopefully they do demonstrate that we greatly value their contributions.

Things we did, which ultimately worked, but took much more time/effort than anticipated:

- Getting State Right of Entry permits. This required many meetings/conversations and pressure from other government agencies to finally get through the steps needed. Old baggage regarding who was responsible for which actions, infringements in the distant past threatened to 'hammer' the whole process. Our advice would be to keep your message / goals clearly out there, keep getting it out in front of the 'gate keeper', and don't be afraid

to ask for support from other government officials who can see the merit of what you are trying to achieve. Secondly, be sure you plan enough lead time into the project so that the actual work can be achieved ... even with a long permitting time.

Things we wouldn't recommend to others, or repeat ourselves:

- Not plan for how plantings will be maintained over time weeding doesn't appeal to many folks, and baby plants need lots of weeding and watering before they get established.
- Count on high school students to generate reliable data on marine life of various kinds. We learned that our efforts with them were GREAT in terms of raising their awareness/teaching them about marine life, but the data generated was not really reliable info for monitoring relative abundance of fish/other species, as a measure of reef health. For reliable data, our coordinator has involved Fish Identification Network adults, expert volunteers.

4. Dissemination

Briefly identify any dissemination of project results and/or lessons learned to external audiences, such as the public or other conservation organizations. Specifically outline any management uptake and/or actions resulting from the project and describe the direct impacts of any capacity building activities.

The most effective information about our project/project results has been disseminated through our Facebook page. In the past few months, thanks to the networking help provided by Liz Foote and Tova Callender, our Facebook following has really grown – from about 70 people to over 400. We have told the dramatic story of clear water after heavy Winter Storm, and compared it to the same day/event and samples taken just to the north of Napili at Honokahua Bay (also known as DT Fleming beach, below the Ritz Carlton Hotel). We have shown some of the photos of coral and reef fish, we have advertised workdays on the streambed and why working there is helpful to health of the reef in the bay. It's been a most powerful tool during 2015, especially.

During the Kahekili Birthday Bash event in August, 2014, we also prepared a flip book with the story of our projects at Napili Bay. A copy of that book was uploaded into NFWF EZ grants in an interim report July 17, 2014.

We have built our capacity to fund actions (e.g. monitoring, maintenance of new plantings, educational workshops) through participation in an annual Charity Walk sponsored by Maui's resort and hotel industry. This has been key to our ongoing financial viability.

In September, 2014, we were invited to present the story of Napili Bay and Beach Foundation's successful projects (Napili 4-5 desilting basin and Napili Kahawai remediation) to a group of County Planners from across the State of Hawaii. This entailed a site visit, an oral presentation and informational handouts for all participants. The overall theme of this meeting was coastal zone management, with good and bad examples. The summary I prepared from the meeting was distributed to Napili community and others, and can be found in Project Documents (P.D. 5) of this report. A copy of my handout for that meeting was submitted to NFWF in September, 2014; it is available again, on request.

We continue to have strong support from Maui County (Planning and Dept. of Public Works), from UH SeaGrant program (Tara Miller Owens), from State legislator Roz Baker, from West Maui Watershed Ridge2 Reef (Tova Callender and Liz Foote, in particular), and have built support from the General Managers at all the resorts on Napili Bay.

What's Next for Napili Bay and Beach Foundation?

As you are aware, the US Coral Reef Task Force designated West Maui Watersheds as a priority partnership in the Pacific in 2011, beginning with Wahikuli and Honokōwai, and now including Kahana, Honokahua and Honolua, from the summit of Pu'u Kukui to the outer reef. In April 2015, West Maui was designated as a Resilient Land and Waters Initiative site by the Department of the Interior, the Environmental Protection Agency and the National Oceanic and Atmospheric Administration. The Watershed Management Plan for Wahikuli and Honokōwai is now in the implementation phase. Planning for Kahana, Honokahua and Honolua Watersheds is underway and will be completed by early 2016. As Napili is located in the Kahana watershed region, we contributed input to the overview based on our

own experiences. We have now turned our attention to the overall plan to identify the hot spots where we need to focus our next efforts. We are well positioned to continue to build on the improvements we have made to this point in time and hope to partner with NFWF/NOAA on these efforts to protect and improve the health of Napili Bay. #

5. Project Documents

Include in your final programmatic report, via the Uploads section of this task, the following:

- 2-10 representative photos from the project. Photos need to have a minimum resolution of 300 dpi. For each uploaded photo, provide a photo credit and brief description below;
- Photo 1.0 The streambed BEFORE the cleanup began (same day as project start)
- Photo 2.0 Another view of the streambed BEFORE the cleanup...taken from road, showing south bank
- Photo 3.0 View of southbank as of January, 2015
- Photo 4.0 Streambed photo taken August, 2015
- Photo 5.0 Heavily silted runoff into Honokahua Bay, January 3, 2015
- Photo 6.0 Napili bay near mouth of Napili Kahawai stream, January 3, 2015
- Photo 7.0 Forcepsfish flaring ... August 2014; a fish we haven't seen much at Napili
- Photo 8.0 Healthy coral and a blennie from Marine Biology monitoring December, 2014
- Report publications, Power Point (or other) presentations, GIS data, brochures, videos, outreach tools, press releases, media coverage;
- P.D. 1 Nutrient Napili Bay
- P.D. 2 NBBF Overview Workshop 5.6.15
- P.D. 3 Staff Training Workshop flyer
- P.D. 4 Napili Species list gold copy
- P.D. 5 Email summary of Planners Conference 9.10.14
- Any project deliverables per the terms of your grant agreement.

POSTING OF FINAL REPORT: This report and attached project documents may be shared by the Foundation and any Funding Source for the Project via their respective websites. In the event that the Recipient intends to claim that its final report or project documents contains material that does not have to be posted on such websites because it is protected from disclosure by statutory or regulatory provisions, the Recipient shall clearly mark all such potentially protected materials as "PROTECTED" and provide an explanation and complete citation to the statutory or regulatory source for such protection.

Pat Brown Lindquist

1038 B Calle Sastre Santa Barbara, CA 93105 Mobile: (650) 303-3150; Email: pblindquist@gmail.com

EXPERIENCE

Extensive experience in Research and Development organizations in roles of progressively increasing responsibility. Broad background in a variety of operational settings: non-profit and for-profit entities, international collaborative research projects, product development project teams, research administration programs/structures.

December 2006 - present

NAPILI BAY AND BEACH FOUNDATION, INC. President

 Leading a community-based NGO in various projects to improve the health of Napili bay and beach, Maui. Work has included raising private funds, obtaining Federal and non-Federal grants, arranging contracts, administering grants over their life cycle, educating community members as to importance of making improvements to protect our coastal reef life, and other facets of running an active organization.

September 1998 - present

LINDQUIST BIOTECH CONSULTING Principal

 Consulted with biotechnology and pharmaceutical companies as well as with other for profit and non-profit businesses with emphasis on project management training, project planning at strategic and tactical levels, and applied project management.

1985 - 1998

GENENTECH, INC.

So. San Francisco, CA

Senior Project Manager (1/97 - 8/98)

- Managed Development project team to:
 - Build effective extramural collaboration
 - Create streamlined project development plan
 - Create fast-track strategy for Phase III/Phase III transition
- Managed Project Managers in therapeutic area to:
 - Successfully present project strategies/plans to upper management
 - Keep projects on track, moving efficiently
- Led Department initiatives in breakthroughs in project management and increasing productivity

Associate Director, Research Admin., Liaison to Roche (10/93-1/97)

- Built solid interactive relationship with scientists and management of Roche's International R & D organization
- Facilitated interactions between project team members at Roche and Genentech
- Managed high visibility staff with varied operational roles to:
 - Streamline contracting processes
 - Create internet link for extramural reagent exchange program
 - Create relational database to manage multiple research administration functions
 - Write more effective reports
 - Revive intramural seminar program

Resource Manager, Research (7/90 - 10/93)

- With a major focus as staff to Vice-President of Research, created and implemented:
 - Effective Research Review process (scientific peer review)
 - Useful methods for tracking research projects
 - Rational space allocation for Research; relocation of Research organization into new Research center
 - Effective presentations of Research strategy and programs
- Streamlined operations for extramural Research seminar program
- Leadership team member for planning and implementing Research Directors' meetings

Project Team Coordinator (8/88 - 7/90)

Managed four preclinical projects at various stages of development.

Research Associate, Molecular Biology (3/85 - 8/88)

Molecular biology and mammalian cell culture research

1982	San Francisco State University	
	Master of Arts, Cell and Molecular Biology	
1976	Sonoma State University	
	Bachelor of Arts, Biology	

 Fifteen published scientific articles in peer reviewed journals; list available on request.

Dana Reed

100 Ridge Road #1221 Lahaina, HI 96761 Home 808-669-4105 Mobile 720-272-8661 dreed@hawaii.edu

Experience

Sole Proprietor, DB Consulting, 2016 - present

Member of steering committee group that initiated a volunteer water quality monitoring project for the island of Maui in conjunction with the Hawaii Department of Health, The Nature Conservancy, the Maui Nui Marine Resource Council, and The West Maui Ridge to Reef Initiative. Coordinator responsible for all collection in west Maui at 24 monitoring sites which includes field collection, laboratory analysis, equipment procurement, volunteer training, and data analysis.

Chief Engineer, Radix Metasystems Maui office, 2010 - 2016

Part-time subject matter expert on ESPRINT system, providing algorithm support, signals analysis support, technical guidance, and specific subject matter seminars.

Chief Engineer, Scitor Corporation Aurora, Colorado 1999 - 2010

Acquired a contract for the design and development of ESPRINT, a radio frequency (RF) collection system that detects and processes signals from wideband sources. Chief technical lead and system architect on the multi-contractor team for this development project. Successfully deployed the new system in the fall of 2007.

Scitor Chief Engineer responsibilities included mentoring other engineers. Established and facilitated a weekly seminar on a variety of technical topics. Presented many single session technical topics during weekly seminar. Developed and taught courses on linear algebra, radar fundamentals, and electronic intelligence to fellow engineers in the Aurora office.

Principal Engineer, ARGOSystems, (Boeing), Aurora, Colorado 1994 -1999

Authored a project report/study on the gains realized with the integration of a new digital data collection system into a large scale automated data collection, classification, and reporting system. Evaluated the utility of a new capability of this same system (digital snapshot capture) for performance monitoring and evaluation as well as other potential functionalities.

Participated in a team evaluation of the impacts of a new satellite payload on existing satellite payloads leading to a redesign of the new payload.

Worked with engineers and scientists from a variety of government and industry organizations on an experiment designed to detect RF signals from strong storms and associate these signals with specific electrical activity within these storms.

Project Engineer, Hughes Aircraft Company 1986 - 1994

Designed and implemented a test equipment/software system to collect calibration signal data from a satellite communication system. Proposed, conducted, and reported on experiments to study RF propagation through the ionosphere, Doppler effects on channel combination, and quantization noise impacts on system dynamic range. Responsible for systems engineering and testing a prototype digital collection system requiring the use of several different computer platforms, operating systems, and

programming languages. Authored white papers on topics such as ultra-wideband technology and digital microwave communication systems.

Team lead for a systems engineering group of junior and senior level engineers. Trained customers on the use of a wideband processing system. Developed and taught a short course on spread spectrum communication systems for other engineers in the laboratory.

Honorarium, University of Colorado, Denver, Colorado 1992 - 1993

Taught Communication Theory for senior electrical engineering students, fall semester 1992. Taught Logic Design for freshman engineering students, spring and summer semesters 1993.

Engineering Coop, Rockwell International Denver, Colorado 1985 - 1986
Worked in a systems engineering group during senior year. Developed and coded database entry software for a simulation model. Designed flowcharts for production processes, and participated in a government study to determine production efficiency.

Teaching Assistant, University of Colorado, Denver, Colorado 1985 - 1986

Taught the Circuits I laboratory for sophomore electrical engineering students in the fall and spring semesters.

Education

University of Colorado, Denver BSEE with Honors - 1986

University of Colorado, Denver MSEE -1989

University of Colorado, Denver PhD course work in mathematics 1998-2002

University of Hawaii, Maui College Marine science, GIS courses 2011-present

Skills

Mathematical modeling/simulation languages: Mathematica, Matlab

PADI certified: Open Water Diver April 2012

Awards

Outstanding Employee Award - Air Force Customer 1989

Technical Excellence Award - Hughes Space and Communications Group 1990

United States Patent awarded September 10, 1991 - Patent # 5,048,086

Experimental Development Programs Award (Boeing Aircraft Co.) - September 1994

Referrals

Referrals provided upon request.