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**SYLVIA LUKE**  
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**STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAII'**  
**DEPARTMENT OF LAND AND NATURAL RESOURCES**  
**KA 'OIHANA KUMUWAIWAI 'ĀINA**  
**Office of Conservation and Coastal Lands**  
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HONOLULU, HAWAII 96809

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KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

REF:OCCL:AW

SSNB KA 25-03

09/08/2025

**MEMORANDUM**

**To:** Director of the Environmental Review Program

**From:** Michael Cain, Administrator *S Michael Cain*  
Office of Conservation and Coastal Lands

**Subject:** Small Scale Beach Nourishment (SSBN) Application for the beach fronting 938, 946, 950, 960 and 968 Niulani Road in Kapa'a, Kaua'i; Tax Map Keys (TMKs): (4) 4-3-009:026, (4) 4-3-009:027, (4) 4-3-009:028, (4) 4-3-009:003, and (4) 4-3-009:002 (seaward) respectively.

The Department of Land and Natural Resources (DLNR) has reviewed the Small-Scale Beach Nourishment Application for the proposed project. Please publish notice of availability for this project in the September 23, 2025 issue of the Environmental Notice. A .pdf copy of the document and the acceptance letter for the application from Chair Chang are included with this submission.

Should you wish to provide comments regarding this project please respond by the 30th Comment Day Deadline: 23 October, 2025. If no response is received by the comment deadline, we will assume there are no comments. Please contact Amy Wirts in the DLNR Office of Conservation and Coastal Lands at (808) 587-0376 or Amy.E.Wirts@hawaii.gov should you have any questions.

**NON-CHAPTER 343 DOCUMENT  
PUBLICATION FORM  
ENVIRONMENTAL REVIEW PROGRAM**

**Project Name:** SSBN KA-25-03 Niulani Beach Nourishment

**Applicable Law:** Chapter 343, Hawaii Revised Statutes; Title 13,  
Chapter 5, Hawaii Administrative Rules

**Type of Document:** Application for Category II Small Scale Beach Nourishment

**Island:** Kaua'i

**District:** Kapa'a

**TMK:** (4) 4-3-009:026, (4) 4-3-009:027, (4) 4-3-009:028, (4) 4-3-009:003, and (4) 4-3-009:002  
(seaward)

**Permits Required:** OCCL Small Scale Beach Nourishment Permit

**Applicant or Proposing Agency:**

Niulani Road Hui  
Bal Family Trust  
968 Niulani Road  
Kapa'a, HI 96746

**Approving Agency or Accepting Authority:**

State Department of Land and Natural Resources  
Office of Conservation and Coastal Lands (OCCL)  
1151 Punchbowl Street, Room 131 Honolulu, HI 96813  
Michael Cain, Administrator, (808) 587-0377  
Point of Contact: Amy Wirts, (808) 587-0376; amy.e.wirts@hawaii.edu

**Consultant:**

Catherine Hanna  
Oceanit Center  
828 Fort Street Mall, Suite 600  
Honolulu, HI 96813  
Email: [channa@oceanit.com](mailto:channa@oceanit.com)  
Office: 808.531.3017 ext 174

**Status:** Application under review

**Project Summary:**

The Office of Conservation and Coastal Lands (OCCL) staff has received a Small-Scale Beach Nourishment (SSBN) application for the beach fronting 938, 946, 950, 960 and 968 Niulani Road in Kapa'a, Kaua'i and has assigned the file number SSBN KA-25-03 to this project. According to the applicant's information, they are proposing to place up to 10,000 cubic yards of beach-quality sand on the shoreline as part of a beach nourishment project located seaward of the subject properties over a 15-year period. The project would utilize sand dredged from the Waipouli drainage canal. The

application also proposes to build three short groin structures on state submerged lands seaward of the private properties.

LINDA LINGLE GOVERNOR



Revised  
May, 2005

**SSBN Cat II  
General Application**

**Category II General Application  
Small-Scale Beach Nourishment Projects  
(SSBN)**

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

OFFICE OF CONSERVATION AND COASTAL LANDS  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809



PETER T. YOUNG  
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COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA  
DEPUTY DIRECTOR - LAND

DEAN NAKANO  
ACTING DEPUTY DIRECTOR - WATER

**Before completing this form, read the Guidelines  
and Instructions for SSBN application.**

**Start date of proposed work:** N/A

**PROJECT NAME:** Niulani Beach Restoration

Proposed Volume: Up to approximately 9,500 cubic yards of beach quality sand, including 2,000 cubic yards for initial nourishment, plus 500 cubic yards for future as-needed maintenance nourishment events, expected every three to five years over the course of 15 years after initial nourishment

**For Category II beach nourishment projects less than 10,000 yd<sup>3</sup> total volume.**

Attach additional sheets as necessary.

DLNR USE ONLY

Permit No.: KA-25-3 Planner: Wirts

Date Received: 21Aug 2025

**1) Property Owner(s) Information** (see Guidelines for SSBN Application - Note 1)

Is this a community association or partnership project? Yes X No       
The partnership between adjacent owners is referred to as the "Niulani Road Hui."

Attach additional owners information as needed.

Legal Name: 960 Aloha Holding LLC (Rohit Kurup and Nomita Paul)

Street Address: 960 Niulani Rd., Unit 1

City, State and Zip+4 Code: Kapa'a, HI 96746

Mailing Address: 7345 164th Ave. NE, Suite 145-400

City, State and Zip+4 Code: Redmond, WA 98052

Contact Person & Title: Rohit Kurup, Owner/Trustee

Phone No.: (425) 765-7393 Fax No.: ( )

Legal Name: Dale, Donald L. & Cheryl A. Revocable Living Trust (Don Dale and Cheryl Dale)

Street Address: 950 Niulani Rd.

City, State and Zip+4 Code: Kapa'a, HI 96746

Mailing Address: 29462 Kensington Dr.

City, State and Zip+4 Code: Laguna Niguel, CA 92677

Contact Person & Title: Don Dale, Owner/Trustee

Phone No.: (949) 495-9449 Fax No.: ( )

Legal Name: Bal Family Trust (Dileep G. Bal and Muktha Bal)

Street Address: 968 Niulani Rd.

City, State and Zip+4 Code: Kapa'a, HI 96746

Mailing Address: 968 Niulani Rd.

City, State and Zip+4 Code: Kapa'a, HI 96746

Contact Person & Title: Dr. Dileep G. Bal, Owner/Trustee

Phone No.: (808) 645-0622 Fax No.: ( )

Legal Name: Gay Wallin

Street Address: 938 Niulani Rd.

City, State and Zip+4 Code: Kapa'a, HI 96746

Mailing Address: 938 Niulani Rd.

City, State and Zip+4 Code: Kapa'a, HI 96746

Contact Person & Title: Gay Wallin, Owner

Phone No.: (818) 309-5426 Fax No.: ( )

Legal Name: Tazuko Ota and Susan Hayakawa

Street Address: 946 Niulani Rd.

City, State and Zip+4 Code: Kapa'a, HI 96746

Mailing Address: 946 Niulani Rd.

City, State and Zip+4 Code: Kapa'a, HI 96746

Contact Person & Title: Glenn Hayakawa

Phone No.: (808) 855-8762 Fax No.: ( )

2) **Primary Contractor Information** (see Guidelines - Note 2)

Name: To be determined

Scope of Work: Execution of the project work as outlined in item 7d of this application

Street Address: \_\_\_\_\_

Contact Person & Position Title: \_\_\_\_\_

Phone No.: (\_\_\_\_) \_\_\_\_\_ Fax No.: (\_\_\_\_) \_\_\_\_\_

3) **Emergency Contact Information** (see Guidelines - Note 3)

Company/Organization Name: Bal Family Trust

Contact Person & Title: Dr. Dileep G. Bal

Phone No.: (\_\_\_\_) \_\_\_\_\_ Phone No.: (808) 645-0622 Cell \_\_\_\_\_

Company/Organization Name: 960 Aloha Holding LLC

Contact Person & Title: Rohit Kurup

Phone No.: (\_\_\_\_) \_\_\_\_\_ Phone No.: (425) 765-7393 Cell \_\_\_\_\_

4) **Project Site Information** (see Guidelines - Note 4)

Project or community association name: Niulani Road Hui

Government Project/Job No. (as applicable): N/A

State/County Zoning. (as applicable): Residential

Street Address: See table below

City, State and Zip+4 Code: Kapa'a, HI 96746

Contact Person & Title: Refer to emergency contacts in item 3 of this application

Phone No.: (\_\_\_\_) \_\_\_\_\_ Fax No.: (\_\_\_\_) \_\_\_\_\_

| Tax Map Key Number(s) |         |      |           |                                                                                                         |                      |                       |             |
|-----------------------|---------|------|-----------|---------------------------------------------------------------------------------------------------------|----------------------|-----------------------|-------------|
| Zone                  | Section | Plat | Parcel(s) | Ownership                                                                                               | Total Area (sq. ft.) | Eroded Area (sq. ft.) | Zoning      |
| 4                     | 3       | 009  | 026       | Gay Wallin,<br>938 Niulani Rd.,<br>Kapa'a, HI<br>96746                                                  | 12,063               | N/A                   | Residential |
| 4                     | 3       | 009  | 027       | Tazuko Ota and<br>Susan<br>Hayakawa,<br>946 Niulani Rd.,<br>Kapa'a, HI<br>96746                         | 11,925               | N/A                   | Residential |
| 4                     | 3       | 009  | 028       | Dale, Donald L.<br>& Cheryl A.<br>Revocable<br>Living Trust,<br>950 Niulani Rd.,<br>Kapa'a, HI<br>96746 | 11,924               | N/A                   | Residential |
| 4                     | 3       | 009  | 003       | 960 Aloha<br>Holding LLC,<br>960 Niulani Rd.,<br>Unit 1,<br>Kapa'a, HI<br>96746                         | 6,610                | N/A                   | Residential |
| 4                     | 3       | 009  | 002       | Bal Family<br>Trust,<br>968 Niulani Rd.,<br>Kapa'a, HI<br>96746                                         | 11,587               | N/A                   | Residential |

5) **Location Map and Shoreline Survey** (see Guidelines - Note 5)

Provide and attach a regional, vicinity and parcel map of project area and include recent photograph(s) of relevant coast and shoreline:

a. Maps submitted: Attached (Appendix A)

b. Photos submitted: Attached (Appendix B)

c. Shoreline Survey: (Date & Contractor)

Shoreline Delineation: Attached (Appendix C)

State Certification Map (If Applicable) : \_\_\_\_\_

d. Other surveys (Specify): \_\_\_\_\_

6) **Receiving State Water Information** (see Guidelines - Note 6)

a. Regional Name: Pacific Ocean along Kaua'i's East shore

b. Classification: (check and explain appropriately)

1. Marine Waters: Class A X Type: Open Coastal

2. Marine Bottom Ecosystem: Class II X Type: Sand, Rocky Shore

3. Water-Quality-Limited Segment: Yes \_\_\_\_\_ No X

c. Explain any "other" classifications:

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7) **Project Description** (see Guidelines - Note 7)

Project Classification (Category I or II)

*Note: Category II projects may require a seal from a certified civil engineer.*

(Attach separate sheets as needed):

Primary Contractor and Type: To be provided by the Niulani Road Hui to the Department of Land and Natural Resources (DLNR) Office of Conservation and Coastal Lands (OCCL) before project begins.

Attached Documents (If Applicable): \_\_\_\_\_

a. Project Category (I or II): Category II

b. *Extraction* Site Street Address: Sand source will be from the Waipouli Drainage Canal. 500 cubic yards was previously dredged from the mouth of the canal as part of the 2023 Kaua'i Kailani Beach Restoration project, and is currently stockpiled in Estrella Enterprises' baseyard, available for initial nourishment. The remaining estimated 1,500 cubic yards needed for initial nourishment is intended to be recovered from the same canal during the Niulani Beach Restoration project. Future as-needed maintenance nourishment events, calling for approximately 500 cubic yards of sand per event, are also expected to source sand from the Waipouli Drainage Canal.

City, State and Zip+4 Code: 4-820 Kuhio Highway, Kapa'a, HI 96746

Tax Map Key (TMK): (4) 4-3-008:017

Terrestrial extraction site is a permitted commercial quarry Company \_\_\_\_\_

Offshore Coordinates: Lat: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ " Lon: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "

UTM: North: \_\_\_\_\_ East: \_\_\_\_\_

c. *Nourishment* Site Street Address: Niulani Road Hui

City, State and Zip+4 Code: Kapa'a, HI 96746

Tax Map Key (TMK): TMK (4) 4-3-009:003 (960 Niulani Rd., Unit 1, Kapa'a, HI 96746)

TMK (4) 4-3-009:002 (968 Niulani Rd., Kapa'a, HI 96746)

TMK (4) 4-3-009:028 (950 Niulani Rd., Kapa'a, HI 96746)

TMK (4) 4-3-009:027 (946 Niulani Rd., Kapa'a, HI 96746)

TMK (4) 4-3-009:026 (938 Niulani Rd., Kapa'a, HI 96746)

d. Describe the overall project scope and purpose and evidence of need for proposed activities.  
(Attach separate sheets as needed)

The project scope involves beach nourishment along approximately 390 linear feet (ln. ft.) of existing unarmored shoreline sandwiched between two adjacent seawalls. The beach would be nourished with approximately 2,000 cubic yards (cu. yd.) of beach quality sand, extracted from Waipouli Drainage Canal, approximately 0.4 miles south of the project site. 500 cu. yd. of sand is currently available for use and is stockpiled at a nearby site, Estrella Enterprises' baseyard. This 500 cu. yd. of excess sand was previously dredged from the mouth of the Waipouli Drainage Canal as part of the 2023 Kaua'i Kailani Beach Restoration project. The remaining estimated

1,500 cu. yd. of sand needed for nourishment is intended to be recovered from the same canal via mechanical dredging during the Niulani Beach Restoration project. Should the available sand volume be insufficient to complete the project, an alternative sand source may be proposed. Alternatively, as beach quality sand becomes available, a smaller volume of sand may be initially placed and future nourishment events will be completed over a 15-year period.

A vegetated sand berm, planted with native vines, grasses, and shrubs will run along the backshore of the nourished beach. This coastal dune will help stabilize the beach erosion by capturing sand and provide habitat to help restore the ecosystem. Three short groins would be constructed of boulder stones placed over the existing substrate to help stabilize the beach by offsetting the impact of the adjacent seawalls. Approximately 500 cu. yd. of basalt stone would be used to construct the groins. The voids between these stones will likely be utilized as new habitat for small fish and other marine life.

The restored beach will be monitored over a period of 15 years and renourished as required. Renourishment is expected every three to five years, with an estimated sand fill quantity of 500 cu. yd. each renourishment event. Beach sand is expected to continue to accumulate within the Waipouli Drainage Canal due to existing sediment transport patterns. Subsequent renourishment events will address future erosion along the shoreline while helping to keep the canal open for flood risk reduction.

The purpose of the proposed project is to address shoreline erosion by restoring volume to a portion of the sand beach seaward of Niulani Road's residential homes. A wider and taller beach profile may help reduce the risks of coastal hazards to public safety and maintain continued lateral public shoreline access.

Shoreline erosion control made of geotextile fabric sandbags currently line three of the five properties' shorelines, at TMKs 4-3-009:002, 4-3-009:003 and 4-3-009:028. These temporary structures were installed by the property owners to address immediate risks of shoreline erosion on public health and safety. The erosion control allowed the property owners time to develop the proposed long-term solution of beach ecosystem restoration. The proposed work includes removal of the existing sandbag structures. Beach quality sand contained within the geotextile fabric may be placed directly on the beach as part of the nourishment, pending approval from OCCL. All other materials, including fabric, anchors, and ties, will be hauled offsite for disposal.

- e. Provide a brief assessment of the primary causes of beach erosion or sand loss for the project site and describe the ability of the proposed project to correct or mitigate the problem. Provide an estimate of the designed residence time of the nourishment project and any anticipated follow up nourishment(s).

The primary cause of the beach erosion at the site is wave action and currents, which scour beach sand and transport it away from the shoreline. The existing site is characterized by a natural perched beach; the sand is supported by a submerged limestone reef platform. Waves break on the crest of this feature and wash toward the shoreline. Portions of the shoreline in Kapa'a have been altered by existing coastal structures, which change the dynamics of sand transport along this coast.

The adjacent properties to the north and south of the project site are armored. Wave wash reflects off these seawalls rather than adsorbing into a sandy shoreline. The reflected water volume concentrates within a slight channel in the limestone substrate that runs parallel between the reef platform crest and the beach until it returns to the sea through gaps near the middle of the site. The flow pulls beach sand out to sea where it may be transported down the coast. The effect is greatest during periods of elevated water levels and consistent wave energy when increased wave overtopping volume and energy increases the flow velocity in the channel and the scouring of the perched beach.

The proposed project will help to mitigate the impact of the seawalls at both ends of the site by placing two groins to direct seawall-reflected flows seaward before they run along the beach. These terminal groins along with a third structure placed mid-site will help to retain the nourished sand and sands that are naturally transported to the beach. By partially stabilizing the eroding beach, the three proposed groins will help reduce the frequency of renourishment events required to maintain a sandy shoreline ecosystem at the site.

- f. Describe the method of sediment extraction and delivery, type of equipment to be utilized and construction methods.

Beach quality sand was previously dredged from the mouth of the Waipouli Drainage Canal for use in beach restoration at the nearby Kaua'i Kailani Beach. Excess sand in the canal was removed during the construction and stored/stockpiled for future nourishments. We propose to use the approximately 500 cu. yd. of available excess sand for the initial beach fill at Niulani Beach. A composite, representative sample was collected from the existing stockpile and analyzed for grain size distribution and composition (Appendix F). When compared to the existing native Niulani Beach sand, the proposed sand source meets applicable DLNR requirements for beach quality sand.

In addition to the excess sand, we propose to recover additional beach sand from the Waipouli Drainage Canal mouth via mechanical dredging. Best Management Practices (BMPs) at the borrow site will include maintaining a sand plug and turbidity curtain at the mouth of the canal to separate the dredging activity from the ocean. Shrubs and other vegetation will be cleared in limited areas for equipment to access the canal embankment. Fiber rolls will be installed along the bank at locations where machinery has temporarily disturbed soils. Dredging equipment will remain above Mean Higher-High Water (MHHW), either on the embankment or on a temporary platform within the canal, with only an extension arm and bucket entering the water.

The sand extracted from the canal will be dewatered, screened of coarse material and aerated for at least two weeks prior to placement on the beach. An archeologist will observe the sand extraction activity under an approved monitoring plan. Future dredged materials, including the sand to be recovered from the canal for initial nourishment, will also be analyzed for grain size distribution and composition to confirm it meets the standards for beach quality material, with analysis results submitted to OCCL for review and approval prior to placement on the beach.

Construction equipment and vehicles, such as dump trucks, loaders, excavators, or similar machines, will access the nourishment site from Niulani Road through a temporary construction access within TMK 4-3-009:027. A temporary barrier will be placed around the seaward perimeter of the groin construction areas as a BMP to reduce wave energy in the active work area. The barrier will be constructed by stacking geotextile bulk lift bags filled with nourishment sand. The barrier will also be used as a platform for equipment used to place the stones into the groin design. The geotextile material will be removed from the site and the sand contents will be used as part of the nourishment when the BMP is no longer required.

- g. Provide scale drawings or photographs (with scale bar) of area to be excavated and filled. Include an estimate of the area (ft<sup>2</sup>) to be nourished. Delineate property boundaries, certified shoreline (if available), location and cross-section of beach profiles, existing and proposed temporary structures with cross-sectional views of any proposed temporary structures. Provide an estimate of the elevations and dimensions of the project area and a range of water depths of proposed activities.

Reference Diagram: Appendix D: Niulani Beach Restoration Concepts

- h. Provide photographs of area to be excavated and filled before, during and after the nourishment project.

Dates of photos submitted with this application: April 19, 2025

Additional survey work scheduled: During and after construction. Photographic surveys to be conducted annually.

- i. Provide a description and engineering design of any proposed temporary structures including all retention or offshore structures. Include a design analysis of any offshore sand extraction.

Three short groins, consisting of layers of un-grouted boulder stones, will be placed perpendicular to the shoreline at a spacing of approximately 180 ft. on center to stabilize the sand nourishment. The structures will extend approximately 70 ft. from the shoreline fronting the properties to the 0 ft. Mean Sea Level (MSL) line and have a low crest elevation of about 7 ft. above Mean Lower-Low Water (MLLW). The two terminal groins at the north and south ends of the project beach will abut with existing shoreline armoring structures at the adjacent properties.

The groins will be constructed over the existing hardpan material on a foundation fabric layer. A core will be constructed using layers of 3" to 1' diameter quarry stone. A layer of approximately 3' diameter armor stone will be keyed-and-fitted as they are placed over the core stones. The final groin section will have a crest width of 6 ft. with 1V:1.5H side-slopes and 1V:2H end-slopes. The total width of each proposed groin is about 24 ft. Once sand fill is placed on the beach, the groins will be partially buried in the nourished beach; they will be largely hidden from site and will not negatively impact existing lateral shoreline access. Combined with the beach sand nourishment and restoration of the coastal dune, the short groins will contribute to the long-term stabilization of the beach for all to enjoy.

The proposed project includes recovery of sand from the Waipouli Drainage Canal for initial and maintenance nourishment events. (No offshore sand excavation is proposed.) Required permits and approvals for sand excavation from the canal will be obtained prior to dredging the canal for beach sand extraction for the Niulani Beach Restoration project.

- j. Provide a temporary construction plan. If temporary retention structures are proposed provide the following:

1. Describe the potential effects to the marine substrate and local littoral processes.

Temporary retention structures: Three rock groins are proposed for the project. The structural footprint will not extend beyond the 0 ft. MLLW line and, therefore, will not impact the existing subtidal marine environment. The groins will be constructed on top of a layer of foundation fabric placed over the existing marine substrate. The existing substrate will not be excavated and will be protected during the construction by tracking equipment over a temporary platform made of sand-filled bulk bags.

The groin structures are an important part of the proposed community beach restoration effort. The two terminal groins are intended to intercept water flow reflected from the adjacent existing seawalls to help lessen the erosional forces impacting the existing beach. Since they are located adjacent to shorelines that are protected from erosion by existing armoring, the proposed groins are not expected to cause any downstream erosion impacts. The structures will help to stabilize the sand in this project's littoral zone and provide new habitat for the coastal ecosystem.

2. Location, type and dimensions of proposed structure(s) (noted on drawings in section 7g).

Please see item 7i of this application.

3. Length of time retention structures will remain in place including a timeline of installation and removal efforts.

Once all required permits are obtained, the timeline for installation of the groins is expected to be approximately four months from the beginning of construction. The groins are proposed to retain the nourished sand for at least 15 years. During this time, shoreline monitoring data will be collected to evaluate the efficacy of the structures. The data is expected to confirm that the design is effective at partially stabilizing the erosion without causing negative impacts. If the data provides insights into improvements to the structures, approvals for modifications may be sought. If shown to be effective, the Niulani Road Hui may seek approval from DLNR to keep the groins in place before the end of the proposed monitoring period. If long-term approvals are not obtained, the groins will be removed.

4. Proof of general liability insurance (\$1,000,000 minimum).

Proof of general liability insurance will be provided to the DLNR prior to construction.

- k. Describe existing physical, chemical and biological environment of project site and any other pertinent characteristics of site. Include a description of major topographic/hydrographic features such as slope, ledges, holes, reefs. Provide a relevant hydrographic chart with site highlighted.

The project site is located in Kapa'a on the island of Kaua'i, the oldest of the main Hawaiian Islands. Elevations at the site range from sea level to approximately 11 ft. above sea level. The land use mauka of the project area is residential.

Soils within the project area are Beaches (BS) and Mokuleia Fine Sandy Loam (Mr). BS soils consist of coarse sand derived from coral and seashells and are excessively drained with very low runoff. Mr soils consist of well-drained soils found along the coastal plains with very low runoff.

Photographs of the shoreline features of the project site are provided in Appendix B. The attached topographic survey (Appendix C) and existing site plan sheet (Figure A) of the Niulani Beach Restoration Concepts (Appendix D) show the existing elevation contours at the site.

A description of the benthic habitat and species found within the project vicinity are described below based on data collected during a field investigation on April 19, 2025. Benthic photographs are included in Appendix E.

### **Intertidal Zone**

The intertidal zone in the project vicinity features a shallow limestone platform. The ocean-edge of the platform's crest ranges from about 30 to 70 ft. from the shoreline in the project area. A small channel runs between the crest of the platform and the shoreline. The toe of the perched beach currently sits within this channel. A portion of this intertidal area will be covered by the proposed groins and beach fill.

Depressions, grooves and holes in this substrate pool water during low tide. The depressions in the reef platform contain stones and pebbles of various sizes that are often coated with crustose coralline algae (CCA). The loose stones grind into their pockets due to wave forces, so they are unsuitable habitats for many other benthos.

Generally, turf algae dominate the surface of the substrate in the project area. Two species of algae are most prevalent: *Lyngbya majuscula* and *Padina sanctae-crucis* form widespread tufts across the limestone shelf. *Acanthophora spicifera* was also observed to form mats along the

outer edge of the reef rock face, and *Dictyosphaeria versluysii* grows sporadically in depressions along the substrate. Two individuals belonging to two different species of Holothuroidea, *Actinopyga varians* and *Holothuria atra*, occupy deeper pools on the rock shelf.

Limpets from two species, *Cellana sandwicensis* and *Cellana exarata*, were found to inhabit the intertidal zone in the project area. These animals were observed attached to rocks subject to high wave action. No crustaceans were observed in the intertidal zone, although exoskeleton remains from dead or molted crabs can be observed along the beach.

### **Subtidal Zone**

The subtidal zone seaward of the reef platform area is dominated by turf algae. Two gaps in the reef platform provide access to the subtidal zone from the beach at the middle of the project area seaward of TMKs 4-3-009:003 and 4-3-009:028.

Beyond the reef rock table, within the subtidal zone, dense algal mats cover the substrate. The species that dominate include *Microdictyon spp.*, *Cladophora catenate*, and *Laurencia mcdermidiae*. Three phenotype variations of *L. mcdermidiae* exist within the subtidal zone. The most common color variant is green, although red and orange were also observed. Additionally, other opportunistic or epiphytic algae populate the reef flats. Short stalks of *Turbinaria ornata* are sparse. Small clumps of *Dictyosphaeria versluysii* grow within the large algal mats, creeping stolons, and branching horizontal shoots of *Asparagopsis taxiformis* which rise above surrounding tufts. Compact sprouts of *Halimeda discoidea* are present, and the three calcified red algae genera, *Jania*, *Liagora*, and *Dichotomaria*, were also observed intermittently in the subtidal zone. At least three species of *Dictyota* were also observed: *D. ceylanica*, *D. acutiloba*, and *D. sandwicensis* located within the dense mats.

In addition to the diverse algal assembles, several rock-boring urchins, *Echinometra mathaei*, inhabit small holes in the substrate. Various small communities of the common reef fish, *Acanthurus triostegus*, utilize ledges created by existing submerged concrete structures in this area as habitat. Additionally, a low number of corals were observed at the northern end of the subtidal zone seaward of the project area. A fragment of *Porites evermanni* was seen rolling freely on the sea floor. Additionally, small colonies of *Porites lobata*, *Pocillopora damicornis* and *Pocillopora meandrina* were observed in the subtidal zone seaward of reef platform feature. These corals are outside the area of the proposed work.

- I. Describe the existing bottom type of the extraction and nourishment site. Include percent coverage and type.

The sand extraction site proposed for the project is the mouth of the Waipouli Drainage Canal, where high quality beach sand accumulates within the jetty structure and becomes trapped. Beach sand that was previously harvested from the mouth of the canal will be used for the initial beach fill, and additional sand will be extracted from the canal for initial nourishment and future renourishment as the sand accretes and becomes available. The bottom type of the canal is not known, but in accordance with the previously approved dredging plans (as part of the 2023 Kaua'i Kailani Beach Restoration project), sand will only be excavated from the surface layer so the bottom of the drainageway will not be disturbed.

The hard substrate at the nourishment fill site is limestone. Much of this substrate is currently exposed due to the long-term trend of beach loss. Currently, within the proposed project area, about 60 percent of the bottom type is limestone, 10 percent is rubble stone, and approximately 30 percent is carbonate beach sand, which rests above the underlying limestone substrate.

- m. Describe potential adverse environmental effects of proposed activity.

The proposed construction activities may temporarily cause increased turbidity in the ocean waters within the work area; however, no long-term degradation of the water quality is expected.

Strict adherence to construction BMPs and sand fill quality are important mitigation measures. Work in the coastal zone will be conducted during periods of low tide and low wave/wind conditions. In the long term, the proposed stabilization of the beach erosion is expected to improve water quality in the near-shore environment.

The proposed project may have a limited effect on the existing biological resources in the project area. The footprint of the sand nourishment and retention structures ends just mauka of the low-tide water line (0 ft. MLLW) to avoid impacts to marine life. According to the data collected during the field investigation conducted on April 19, 2025, there are no live corals or rare, endangered or threatened organisms inhabiting the proposed fill area. The substrate in this area is mainly covered with algae, sand, rubble or is bare limestone. Although light coral coverage was observed in the subtidal zone seaward of the project area, these corals will not be impacted by the proposed activities.

The two terminal groin structures will change the local littoral dynamics by directing water flows away from the shoreline to help prevent sand scouring. This change to the dynamics is not expected to result in any adverse environmental effects. On the contrary, the proposed restoration of the beach and dune along with the placement of interlocking boulder stones may result in enhanced habitat for the coastal ecosystem.

- n. Describe the current recreational use of the project site and describe the potential impacts the proposed project might have. (ie. Impacts on swimming, surfing, canoe clubs, diving, fishing, tourism, etc.) Briefly identify the development style and land use of the project area, (undeveloped, urban, residential, condominium, agricultural, commercial, etc.)

The existing beach currently consists of a narrow strip of sand. During high tide, waves and currents generally result in unfavorable conditions for walking and swimming. Seawalls on either end of the beach hinder lateral public shoreline access unless pedestrians walk over the slippery algae-coated reef platform. Nearby beach parks provide a more convenient and safe means of ocean and beach access. Besides the occasional shore fisher, this site does not currently have many recreational users.

The project will temporarily limit existing recreational activities at the site since pedestrians will not be allowed to enter the area during construction activities. In the long term, however, the proposed beach restoration will increase opportunities for recreational use. If pedestrians walk over the rock groins at either end of the proposed nourishment, they may find a widened beach area with calmer conditions to enjoy.

Since the beach restoration site is makai of the delineated shoreline it is likely considered Conservation District state land. Mauka of the site, the state land use is urban, and the adjacent parcels are currently developed with single-family homes. The property owners in the Niulani Road Hui use their homes for residential and vacation rental use.

- o. Identify and describe any known historic properties within or near the proposed project area and any mitigation commitments made to protect, restore, or data recover any of the identified properties. This could include properties such as stone features, fishponds, burial sites, cultural deposits, and traditional places.

Historic properties are known to exist within the areas adjacent to both the extraction site and nourishment sites. Landward of the proposed nourishment site, burials have been previously discovered and documented. These burials are currently protected from shoreline erosion by an existing sandbag structure. These sandbags will be removed during the proposed project, but erosion protection of the burials will be restored through the stabilized beach and dune.

Adjacent to the Waipouli Drainage Canal borrow site, multiple burials have also been documented. These burials will be protected during the proposed extraction activities by avoiding disturbing the soil or tracking equipment in areas of known historic properties. An archeological

monitor will observe the sand recovery work to help ensure that resources are protected in the unlikely event that they are encountered. No historic properties were disturbed during previous dredging operations at this site.

p. Check Yes or No for the following items. **Yes** **No** **Contacted?**

Provide a detailed explanation for any "yes" answers.

(see Instructional Guidelines)

Is any proposed work within the shoreline setback area?<sup>1</sup>   X                  
Construction access and material stockpiles will be partially located within the shoreline setback area.

Is any portion of this project within a Special Management Area?<sup>1</sup>   X                  
Construction access and material stockpiles will be located within the SMA area.

Is any portion of this project within an endangered species habitat?<sup>2,3</sup>   X                  
The existing beach may be considered habitat for protected sea turtles.

Is any portion of this project within a wetlands or estuary?<sup>2,3</sup>   X                  
The proposed footprint extends into estuarine and marine wetland M2USN.

Is any portion of this project within a Marine Life Conservation District?<sup>4</sup>          X         

Is any portion of this project within a historical or cultural site?<sup>5</sup>   X                  
Landward of the proposed nourishment site, burials have been previously discovered and documented.

Letter of Public Notice of Proposed Action submitted to the Office of Environmental Quality Control (OEQC)?<sup>6</sup>          X  

Date OEQC Contacted:   N/A   Authorizations attached:          X  

Explanation:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Agencies Contacted: We anticipate future consultations with other regulatory agencies, including the County of Kaua'i Planning Department, DLNR State Historic Preservation Division (SHPD) and U.S. Army Corps of Engineers (USACE).

## 8) Description of the Existing Sedimentary Environment and Compatibility of Proposed Nourishment Sediment. (see Guidelines - Note 8)

- a. Describe the **existing** sediment type including size, composition and quality. Include grain size distribution, percent fines and color.

Existing sediment at the Niulani Beach site consists mainly of calcareous materials (95%) from coral and shell detritus. Grain size varies from 0.1 millimeters (mm) to 4.0 mm. Approximately 1 percent of the sand passed through the 0.1 mm sieve. The sand is light tan in color and shows a texture of typical beach material. Full grain size distribution results for the existing sand at Niulani Beach are attached (Appendix F).

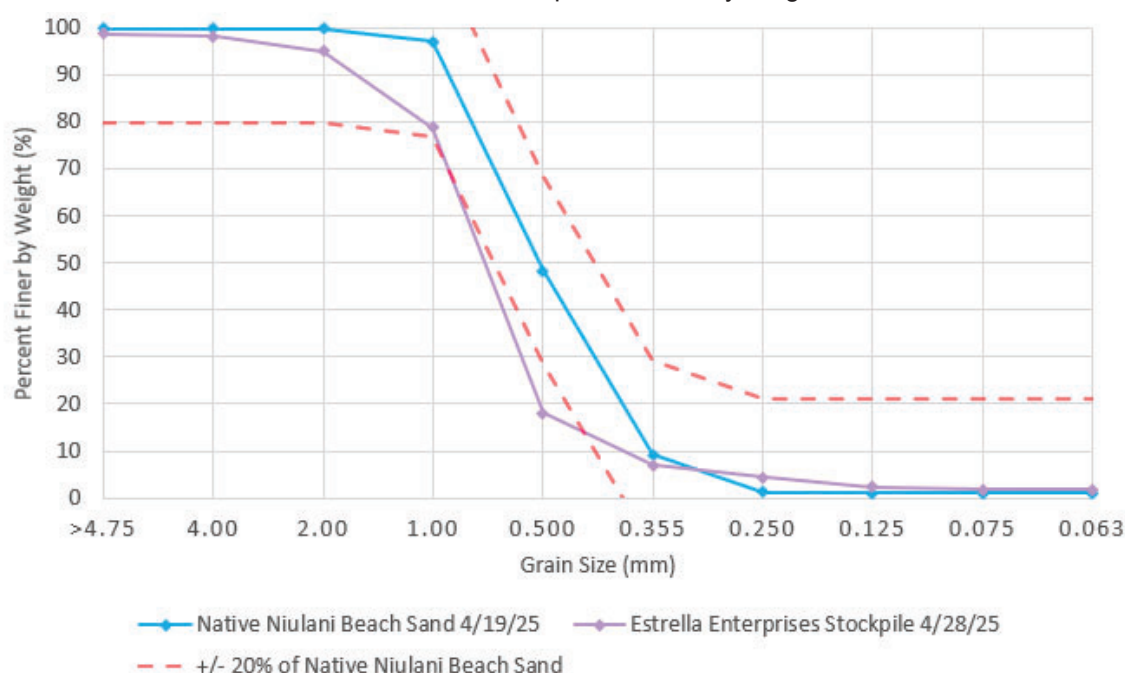
- b. Describe the **proposed fill** sediment type including size, composition and quality. Include grain size distribution, percent fines and color.

500 cu. yd. of proposed fill sand recovered from the mouth of Waipouli Drainage Canal is currently stockpiled in Estrella Enterprises' baseyard. Grain size of the stockpiled sand varies from 0.1 mm to 5.0 mm. The fraction passing through the 0.1 mm sieve is approximately 2 percent. Grain size distribution shows that the proposed fill sand is generally coarser than the native Niulani Beach sand, making it more difficult to move by wave action. Full grain size distribution results for the stockpiled sand are attached (Appendix F).

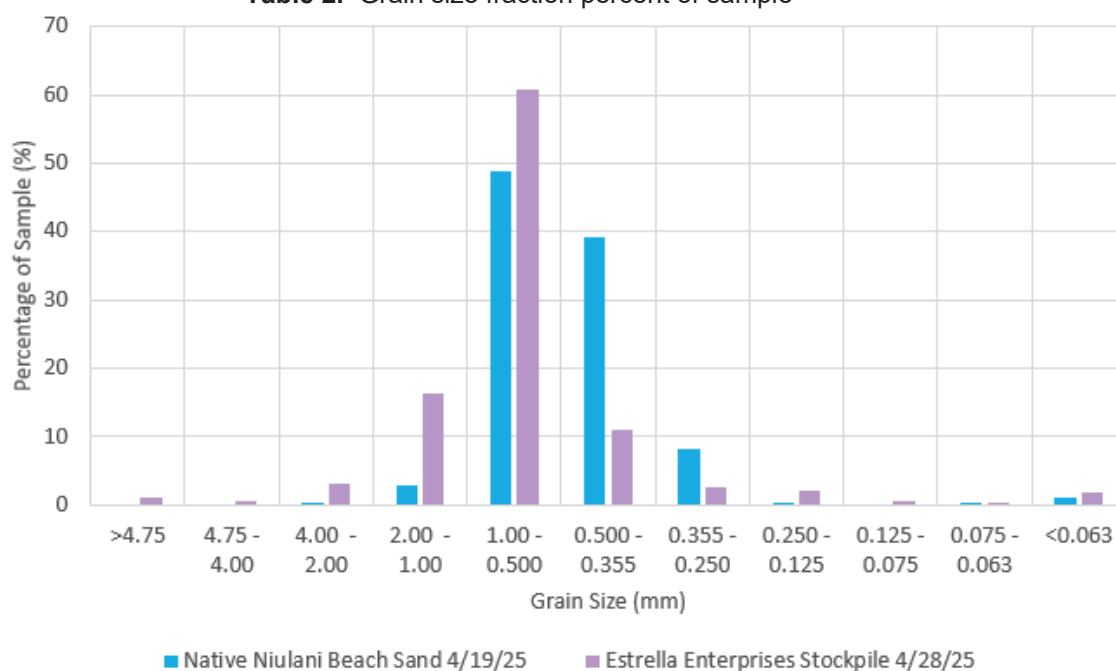
- c. Give an estimate of compatibility to fill site and evidence that proposed fill sediment meets the requirements for grain size ranges as specified in the Guidelines Section 8c. Indicate an overfill ratio and method of calculation (if applicable).

The stockpiled sand meets applicable DLNR grain size requirements. No more than 50 percent of the sand is less than 0.125 mm, as measured by the #120 standard mesh sieve. The percentage of fine sediment (less than 0.075 mm) is less than 2 percent, and the percentage of coarse sediment (more than 4.75 mm) is less than 2 percent. In addition, the sand is 93 percent calcium carbonate (CaCO<sub>3</sub>). See attached sand analysis for more details (Appendix F).

**Table 1.** Grain size percent finer by weight



**Table 2.** Grain size fraction percent of sample



- d. Provide one separate, bagged and labeled (~0.5 lb) sediment sample of both the extraction site and nourishment site to the DLNR Lands Division. (see Guidelines - Note 8)

Sample sent or delivered (date): A bagged, composite sample of the sand stockpiled in Estrella Enterprises' baseyard and a bagged, composite sample of sand from the nourishment site (native Niulani Beach sand) was delivered to OCCL with the initial SSBN application on June 20, 2025.

- e. List name and contact numbers for laboratory to be used for sediment analysis:

Lab name, contact name and phone number: AECOS Inc., Ann Mello, (808) 234-7770

## 9) **Project Schedule** (see Guidelines - Note 9)

- a. Provide the estimated date or dates on which the activity will begin and end:<sup>1</sup>

<sup>1</sup> See Article V.22 TERMS of the Guidelines

The construction date is unknown due to uncertainty in the timeline to obtain all required permit approvals from various regulatory agencies. Once approved, the total project construction will span approximately four to six months.

- b. Provide the date or dates that the excavation and or nourishment(s) will take place:

Dates of excavation and nourishment activities will be dependent on the permitting timeline. Future nourishment events may be required over the proposed project monitoring period of 15 years. This application is intended to cover those events, expected every three to five years over the course of 15 years after the initial nourishment, if, as and when deemed necessary. Maintenance nourishment events are expected to occur once approximately 25 percent (500 cu. yd.) of the nourished sand volume is eroded and/or after storm events. Monitoring data collected via field camera(s) and/or periodic site visits will reveal how frequent renourishments will be required during the project life.

10) **Site-Specific Best Management Practices (BMP) Plan** (see Guidelines - Note 10)

a. Separate maps are attached   X   Yes Using existing map (Indicate which)  
Please see the BMP plan sheet (Figure F) of Appendix D.

b. Project monitoring and oversight responsibility (If different than Section 3 Emergency Contact).

Contact person:

Title:

Contact number(s):

c. Construction sequence and duration.

- 1) The Contractor will mobilize equipment and establish the staging and access areas at the project site. This will include implementation of BMPs per plan (e.g., temporary wave barrier platform around the groin installation sites) and construction signage and perimeter fencing to restrict unauthorized access to the construction area. The Contractor will start the installation at the south end of the restoration area and track north in segments, utilizing sliding work zones and BMPs around the active work area. Beach quality sand will be delivered to the site from the offsite stockpile location. Nourishment sand will be placed to provide a construction pathway between the beach access point and the installation area. Duration: 2 weeks
- 2) Seaward of TMK 4-3-009:026, construction of the first groin will begin with clearing of existing sand and rubble stones above the limestone substrate. Foundation fabric will be placed in the footprint of the structure. The groin will be formed by first mounding core stones and then by carefully stacking the armoring layers such that the boulders are keyed-and-fitted to form a stable structure. Duration: 3-5 weeks
- 3) Upon completion of the first terminal groin, the Contractor will construct the second terminal structure seaward of TMK 4-3-009:002 in the same manner. Duration: 3-5 weeks
- 4) The final groin will be constructed in the middle of the project area, seaward of TMK 4-3-009:028. Duration: 3-5 weeks
- 5) The Contractor will demolish and remove existing temporary erosion control structures along the shoreline at TMKs 4-3-009:002, 4-3-009:003 and 4-3-009:028. A representative sandbag from each of these three properties will be opened, three samples collected and analyzed for grain size distribution and composition, and results submitted to OCCL for review and approval before the sand is deposited onto the beach. If approved by OCCL, this material will be used as the internal core of the beach and will be covered with the imported nourishment sand. In the event of the tested sand not meeting beach-quality standards, it will be removed and disposed of offsite. Geotextile fabric will be cut and removed for disposal offsite along with any other structural materials (soil anchors, ties, etc.). Duration: 2-3 weeks
- 6) After installing the turbidity curtain BMPs between the groin structures, the Contractor will place beach quality sand to fill the beach according to the nourishment profile. The sand berm will be formed at the backshore of the beach face and planted with native coastal vegetation. The berm will be cordoned off with a temporary pedestrian rope barrier to help protect plantings while they establish. Duration: 2-3 weeks

- 7) To complete the construction, the Contractor will remove all temporary BMPs and fully restore staging and access sites to their pre-construction conditions. Equipment will be demobilized from the site. Duration: 1 week

The total duration of the project's initial restoration action is expected to be approximately four to six months. Future renourishment events, if needed, may take approximately two months.

- d. Construction or nourishment materials and equipment to be used and the anticipated dates of installation/mobilization and removal.

All construction equipment will be land-based. Anticipated construction equipment includes an excavator to extract sand from the Waipouli Drainage Canal and dump trucks to move sand from the borrow site to the temporary stockpile site. A front-end loader and dump trucks may be used to move the beach material from the temporary storage stockpile site to the nourishment site. A skid steer may be used to grade and contour the fill to the designed beach profile. Dates of construction will be set once all required permit approvals are obtained, including land disposition, and a contractor is selected for the project. The construction will be scheduled around periods of expected favorable ocean water levels and wave conditions.

- e. Characteristics of potential pollutants associated with the proposed nourishment or construction activity.

| Source                          | Composition                    | Potential Pollutant                            | Quantity | Duration   |
|---------------------------------|--------------------------------|------------------------------------------------|----------|------------|
| Heavy equipment                 | Hydrocarbons                   | Diesel fuel, hydraulic oil or engine oil leaks | Limited  | 4-6 months |
| Land erosion and fill placement | Soil particles, organic matter | Sediment                                       | Limited  | 4-6 months |

- f. Proposed pollution control measures and/or treatment(s).

The Contractor shall implement standard BMPs. A pre-construction meeting will be conducted with the Engineer and the Construction Foreman to review BMPs, construction sequence, and safety measures. Work in the coastal area will be conducted, to the maximum extent practicable, during periods of expected low tide and favorable wave conditions. Heavy machinery will not be allowed to idle or enter the ocean waters. Any loose soil, debris or other foreign material that inadvertently falls into the conservation area during construction will be immediately contained and removed. Construction debris and other waste materials will be disposed of offsite in compliance with all applicable laws and regulations. Trucks hauling fine materials (e.g., sand) and debris will be covered.

All equipment will be pre-fueled prior to staging at the site and inspected to ensure that there are no leaks of potential pollutants (i.e., fuels or oils). To reduce the risk of toxic or chemical spills into the coastal environment, all fueling and servicing of heavy machinery and equipment will be completed offsite at the farthest mauka area of the ingress/egress lot (at least 100 ft. away from the ocean).

Temporary stabilized construction access will be installed within TMK 4-3-009:027, off Niulani Road, to help control the tracking of soil onto public roads by construction vehicles. Whenever vehicles leave the site and enter surrounding paved streets, the Contractor shall prevent any material from being carried onto the pavement. Any soil spilled, dropped, washed or tracked onto public rights-of-way will be removed by dry sweeping. A temporary fiber roll will be installed as a sediment control measure around construction access and staging areas.

A temporary wave barrier and equipment tracking platform will be created around the active groin construction area using bulk lift bags filled with sand. The bulk bags will be stacked side-by-side and secured to each other with a line that passes through each lift strap. The bulk bags will be inspected daily, and any ruptured bags will be removed and replaced. A turbidity curtain will be placed seaward of the sand fill area to help control the risks to water quality during sand nourishment.

- g. Describe the onsite public safety measures (i.e. Warning signs, barriers, cordon off area, safety personnel, etc.)

Notifications will be posted prior to and during construction activities. Work areas will be cordoned off and warning signs will be posted to inform the public not to enter the work zone. Temporary high visibility safety fencing will be installed around the perimeter of the work areas to restrict access to the public during the project construction. The Contractor will designate a Safety Officer that will be onsite during all construction activities. The project shall be completed in accordance with all applicable health and safety regulations.

11) **Monitoring and Assessment Plan** (see Guidelines - Note 11)

The Monitoring and Assessment Plan shall, at a minimum, include the following:

- a) Description of the methods and means being used or proposed to monitor the quality of the surrounding near shore waters. (Describe the planned monitoring program frequency)

See Appendix G for the Applicable Monitoring and Assessment Plan (AMAP).

- b) Acknowledgement of required final compliance report to be submitted to the DLNR-OCCL within two months of completion of authorized project. (See Guidelines - Note 11).

Signed by:  
Authorized Signature: Dileep Bal  
9A0D6CDDE2494F5...  
Name and Title: Dr. Dileep G. Bal, Owner/Trustee Date: Aug-19-2025



13) **Additional Information** (see Guidelines - Note 13)

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

14) **Authorization of Representative** (see Guidelines - Note 14)

Check one and complete the appropriate space(s). Alteration of this item will result in the invalidation of the authorization statement(s).

- a. This statement authorizes the named individual (s) or any individual occupying the named position of the company/organization listed below to act as our representative to process the following General Application for Small-Scale Beach Nourishment for the subject project. The Owner hereby agrees to comply with and be responsible for all permit terms and conditions.

Said representative is further authorized to fulfill all terms and conditions of this application:  
 Yes ☒ No ☐

1. Company/Organization Name: Oceanit Coastal Corporation

Street Address : 828 Fort Street Mall, Suite 600

City, State and Zip Code+4: Honolulu, HI 96813

Authorized Person & Title: Ken Cheung, Ph.D., P.E., Science & Engineering Director

Phone No.: (808) 531-3017 Fax No.: ( )

Effective date(s): 08/01/2025

- b. A separate statement is attached. Yes ☐ No ☒

**15) Certification** (see Guidelines - Note 15)

Alteration of this item will result in the invalidation of this application.

\_\_\_\_\_ I certify that for a municipal agency, I am a principal executive officer or ranking elected official.

\_\_\_\_\_ I certify that for a state agency, I am a principal executive officer or ranking elected official.

\_\_\_\_\_ I certify that for a federal or other non-federal public agency, I am a principal executive officer or ranking elected official.

\_\_\_\_\_ I certify that for a federal agency, I am the chief executive officer of the agency, or I am the senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

\_\_\_\_\_ I certify that I am a general partner for a partnership or association.

\_\_\_\_\_ I certify that I am the proprietor for a sole proprietorship.

  X   I certify that I am the legal owner of a private residence or property.

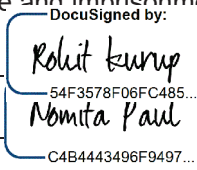
\_\_\_\_\_ I certify that for a corporation or association, I am the President, Vice President, Secretary, or Treasurer of the corporation or association and in charge of a principal business function, or I perform similar policy or decision-making functions for the corporation or association:

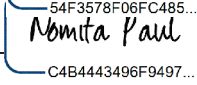
\_\_\_\_\_ I certify that for a corporation, I am the Manager of one or more operating facilities and have the authority to sign documents has been assigned or delegated to me in accordance with corporate procedures.

\_\_\_\_\_ I certify that for a trust, I am a trustee.

In accordance with all applicable State of Hawaii and federal statutes there is reasonable assurance that the proposed activity will be conducted in such a manner which will not violate basic water quality criteria applicable to all waters and in a manner consistent with the DLNR, COE, DOH and CZM programs where the proposed nourishment would take place.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Authorized Signature: \_\_\_\_\_  \_\_\_\_\_ Date: Aug-20-2025

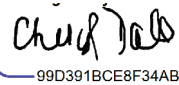
Authorized Signature: \_\_\_\_\_  \_\_\_\_\_ Date: Aug-20-2025

Printed Name & Title: Rohit Kurup and Nomita Paul, Owners/Trustees

Company/Organization Name: 960 Aloha Holding LLC

Phone No.: (425) 765-7393 Fax No.: ( )

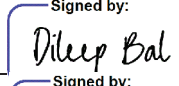
Authorized Signature:  Don Dale Date: Aug-20-2025  
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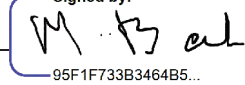
Authorized Signature:  Cheryl Dale Date: Aug-19-2025  
99D391BCE8F34AB...

Printed Name & Title: Don Dale and Cheryl Dale, Owners/Trustees

Company/Organization Name: Dale, Donald L. & Cheryl A. Revocable Living Trust

Phone No.: (949) 495-9449 Fax No.: ( )

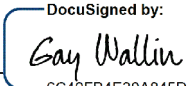
Authorized Signature:  Dileep Bal Date: Aug-19-2025  
Signed by:

Authorized Signature:  Muktha Bal Date: Aug-19-2025  
Signed by:  
95F1F733B3464B5...

Printed Name & Title: Dileep G. Bal and Muktha Bal, Owners/Trustees

Company/Organization Name: Bal Family Trust

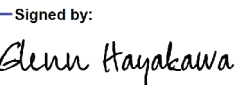
Phone No.: (808) 645-0622 Fax No.: ( )

Authorized Signature:  Gay Wallin Date: Aug-20-2025  
DocuSigned by:  
6C49FB4E30A845D...

Printed Name & Title: Gay Wallin, Owner

Company/Organization Name: \_\_\_\_\_

Phone No.: (818) 309-5426 Fax No.: ( )

Authorized Signature:  Glenn Hayakawa Date: Aug-20-2025  
Signed by:  
5F2B9206B339455...

Printed Name & Title: Tazuko Ota and Susan Hayakawa (Contact: Glenn Hayakawa)

Company/Organization Name: \_\_\_\_\_

Phone No.: (808) 855-8762 Fax No.: ( )

16) **Filing Fee** (see Guidelines - Note 18)

Check one and complete the appropriate space(s). Non-refundable filing fee.

Check # \_\_\_\_\_

\_\_\_\_\_ Category I Project (\$50)  
  X   Category II Project (\$250)  
\_\_\_\_\_ Attached to application

Payable to: *State of Hawaii*

Inquiries and Submittals:

**Contact Information**

SSBN inquiries and submittals shall be directed to the street or mailing address listed below:

**(1) Street Address**

State of Hawaii  
Department of Land and Natural Resources  
Office of Conservation and Coastal Lands  
1151 Punchbowl Street  
Honolulu, Hawaii 96809  
(808) 587-0377  
(808) 587-0322 Fax  
<http://www.hawaii.gov/dlnr/occl/index.php>

**(2) Mailing Address**

State of Hawaii  
Department of Land and Natural Resources  
Office of Conservation and Coastal Lands  
P.O. Box 621  
Honolulu, Hawaii 96809

Questions should be directed to the DLNR OCCL.

Note: The length of time required to process this permit will be directly related to the complexity of the project and the adequacy and completeness of the information submitted by the applicant (see Section V.4 of the Guidelines manual).

| SSBN Application Checklist                                                                                                                                                                |                                                                                                                 |                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------------------|
| If any item is listed as "no," attach a sheet with the reason for its exclusion from the application.<br>Sections 10g, 12, 14 and 15 may be omitted (with a "N/A" answer ) if applicable. |                                                                                                                 |                          |
| Item Number                                                                                                                                                                               | Description                                                                                                     | Item addressed? (yes/no) |
| 1.                                                                                                                                                                                        | Owner Information .....                                                                                         | Yes                      |
| 2.                                                                                                                                                                                        | General Contractor Information .....                                                                            | No <sup>1</sup>          |
| 3.                                                                                                                                                                                        | Emergency Contact Information .....                                                                             | Yes                      |
| 4.                                                                                                                                                                                        | Project Site Information .....                                                                                  | Yes                      |
| 5.                                                                                                                                                                                        | Location Map and Survey Information.....                                                                        | Yes                      |
| 6.                                                                                                                                                                                        | Receiving State Water Information.....                                                                          | Yes                      |
| 7.                                                                                                                                                                                        | Project Description .....                                                                                       | Yes                      |
|                                                                                                                                                                                           | Proof of \$1,000,000 Liability Insurance (attached).....                                                        | No <sup>2</sup>          |
| 8.                                                                                                                                                                                        | Description of the Existing Sedimentary Environment and Compatibility of<br>Proposed Nourishment Sediment ..... | Yes                      |
| 9.                                                                                                                                                                                        | Project Schedule .....                                                                                          | Yes <sup>3</sup>         |
| 10.                                                                                                                                                                                       | Site-Specific BMP Plan.....                                                                                     | Yes                      |
|                                                                                                                                                                                           | 10.g Letter to Environmental Notice (Draft attached) .....                                                      | N/A                      |
| 11.                                                                                                                                                                                       | Applicable Monitoring and Assessment Plan .....                                                                 | Yes                      |
| 12.                                                                                                                                                                                       | Supporting Documents .....                                                                                      | Yes                      |
| 13.                                                                                                                                                                                       | Additional Information .....                                                                                    | N/A                      |
| 14.                                                                                                                                                                                       | Authorization of Representative .....                                                                           | Yes                      |
| 15.                                                                                                                                                                                       | Certification.....                                                                                              | Yes                      |
| 16.                                                                                                                                                                                       | Filing Fee (\$50 Category I; \$250 Category II) is attached .....                                               | Yes                      |
| 17.                                                                                                                                                                                       | Number of copies with supporting documents submitted                                                            |                          |
|                                                                                                                                                                                           | b) One (1) copy for projects on Oahu with owner's original signature .....                                      | N/A                      |
|                                                                                                                                                                                           | c) Two (2) copies for projects on islands other than Oahu (one with<br>owner's original signature) .....        | Yes                      |

<sup>1</sup> General Contractor information is TBD.

<sup>2</sup> Proof of \$1M liability insurance will be provided once land disposition is approved.

<sup>3</sup> Exact dates of project schedule are TBD.

***Appendix A:***

***Niulani Beach Restoration Maps***

# Niulani Beach Restoration

## Regional Map



### Overview



### Legend

-  Parcels
-  CPR Units
- Parcel Numbers
-  Roads

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Developed by  **SCHNEIDER**  
GEOSPATIAL

# Niulani Beach Restoration

## Vicinity Map



### Overview



### Legend

-  Parcels
-  CPR Units
-  Parcel Numbers
-  Roads

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# Niulani Beach Restoration

## Parcel Map



### Overview



### Legend

-  Parcels
-  CPR Units
- Parcel Numbers
-  Roads

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Date created: 5/28/2025

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***Appendix B:***

***Project Site Shoreline Photographs***



**Photograph 1.** Fronting the property of TMK 4-3-009:026, looking south



**Photograph 2.** Fronting the property of TMK 4-3-009:026, looking west at the property



**Photograph 3.** Fronting the property of TMK 4-3-009:026, looking north



**Photograph 4.** Fronting the property of TMK 4-3-009:027, looking north



**Photograph 5.** Fronting the property of TMK 4-3-009:028, looking south



**Photograph 6.** Fronting the property of TMK 4-3-009:028, looking north



**Photograph 7.** Fronting the property of TMK 4-3-009:003, looking south



**Photograph 8.** At property boundary of TMKs 4-3-009:003 & :002, looking south



**Photograph 9.** Fronting the properties of TMKs 4-3-009:003 & :002, looking west to shore



**Photograph 10.** Fronting the property of TMK 4-3-009:002, looking north

***Appendix C:***  
***Shoreline Survey***

Note:

1. Elevation transferred from RM 81
2. RM 81 elevation: 7.07 MSL
3. Azimuths and coordinates referred to Government Triangulation Station "NONOU".

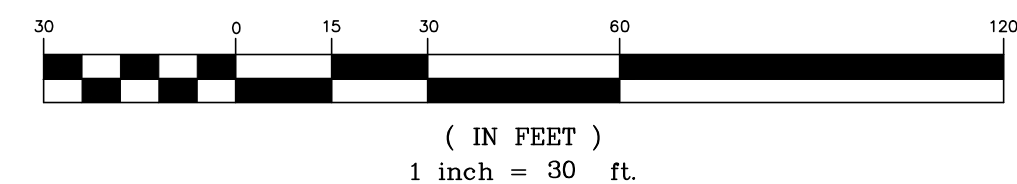
Legend:

clmn - Column  
cnc - Concrete  
crm - Concrete Reinforced Masonry  
cwr - Cover  
hbib - Hose Bib  
plntr - Planter  
shwr - Shower

- ZONE X Areas determined to be outside 0.2% annual chance floodplain
- ZONE VE Coastal flood zone with the velocity hazard (wave action), Base Flood elevations determines.

The property lies within Flood Zones X and VE. Flood zone information based on Flood Insurance Rate Map published by the Federal Emergency Management Agency for Kaua'i County, Hawai'i, Panel 204 of 500, Map Number 1500020204F, map dated November 26, 2010.

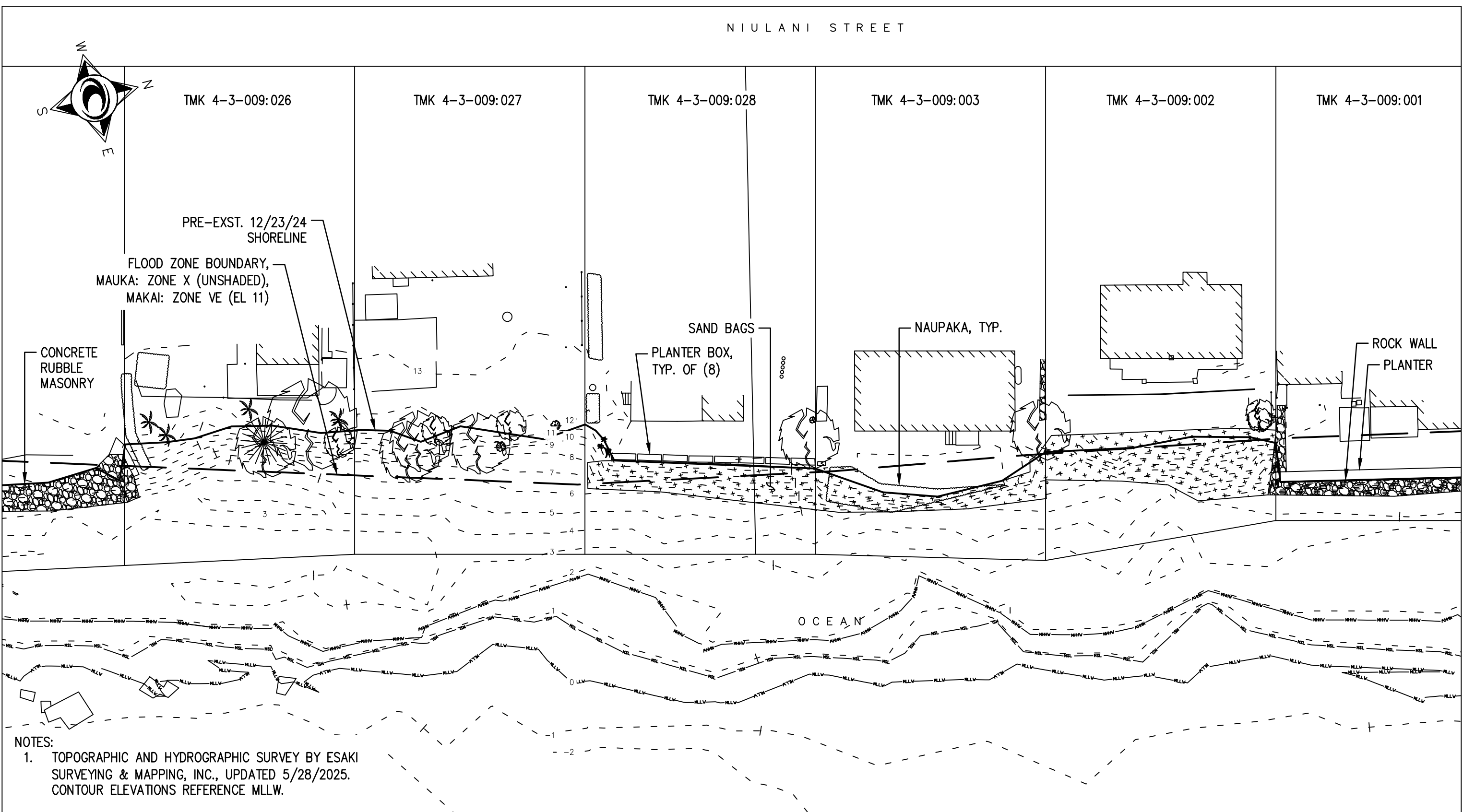
GRAPHIC SCALE



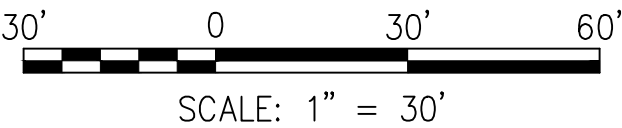
TOPOGRAPHIC MAP SHOWING  
PORTIONS OF LOTS 7, 8, 9, 14, 15,  
16, 17, K AND KEAKA ROAD  
KAPAA, KAUAI, HAWAII  
Tax Map Key: (4) 4-3-09: 01, 02, 03,  
25, 26, 27, and 28  
Prepared for: Dileep Bal  
Date of Map: May 15, 2025

***Appendix D:***

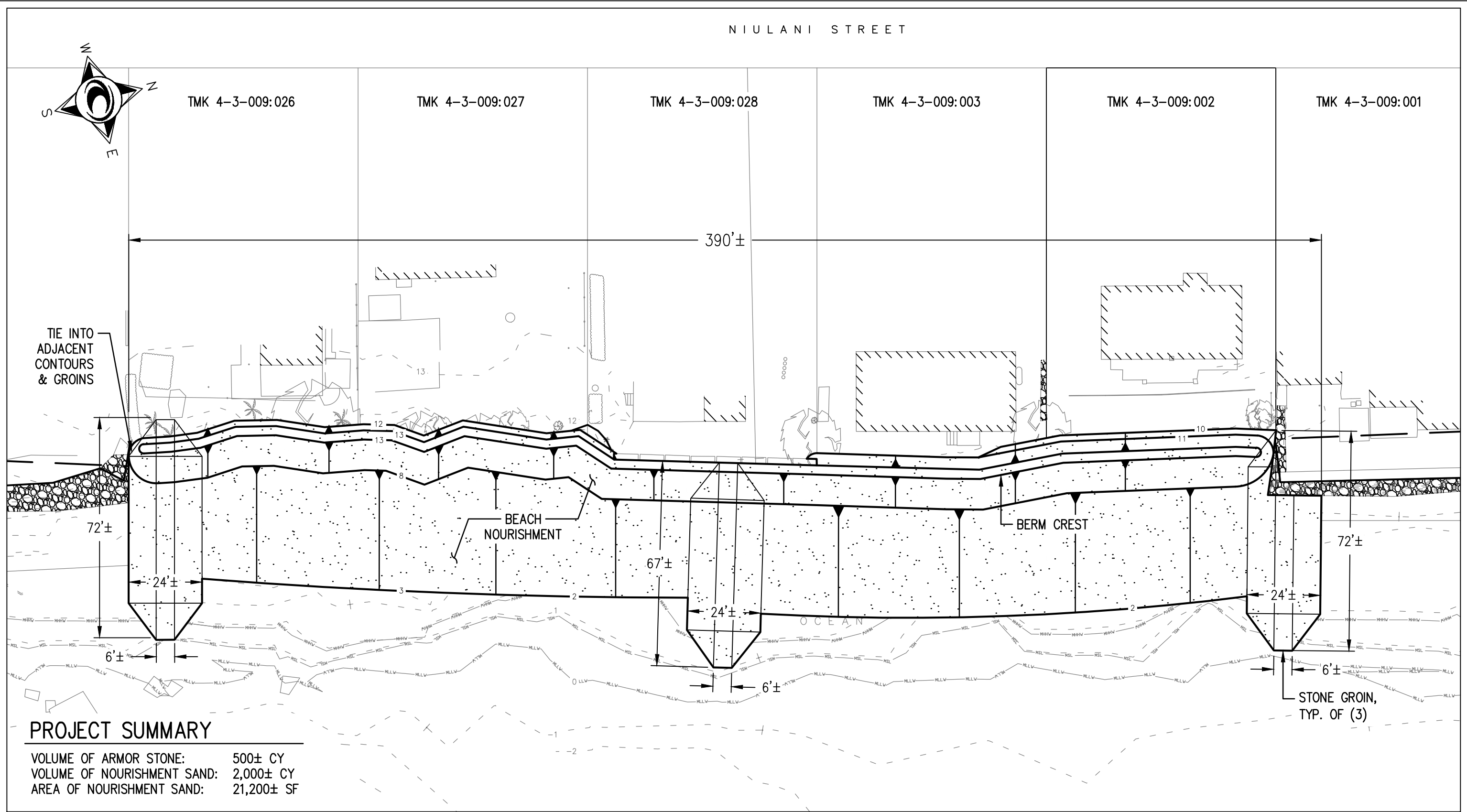
***Niulani Beach Restoration Concepts***



EXISTING SITE PLAN  
NIULANI BEACH RESTORATION

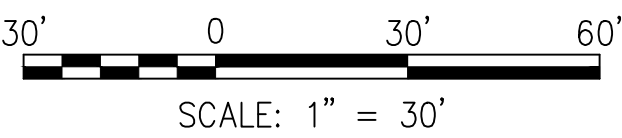


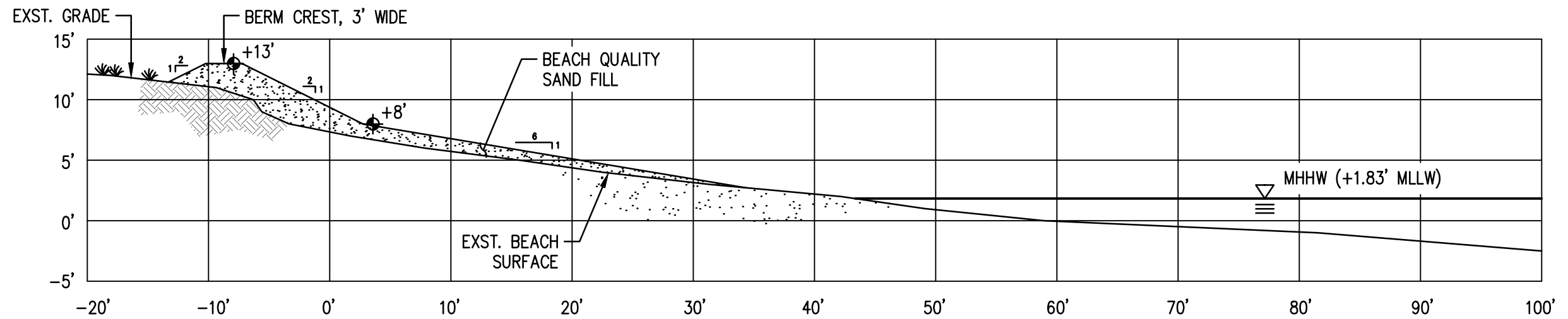
**oceanit**  
FIGURE A



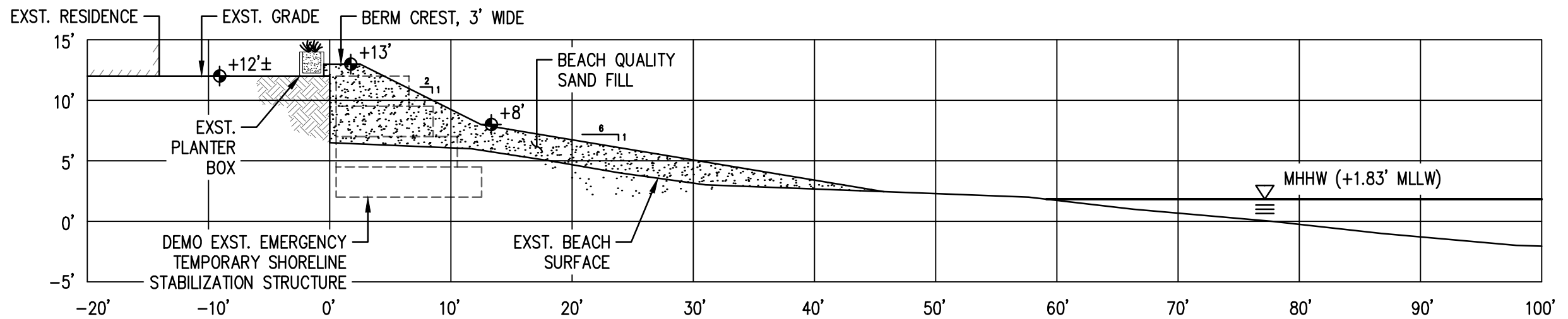
# CONCEPT SITE PLAN

## NIULANI BEACH RESTORATION



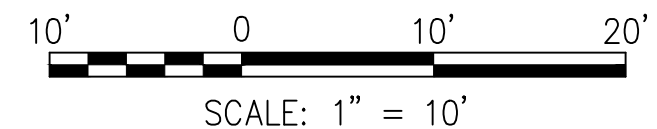


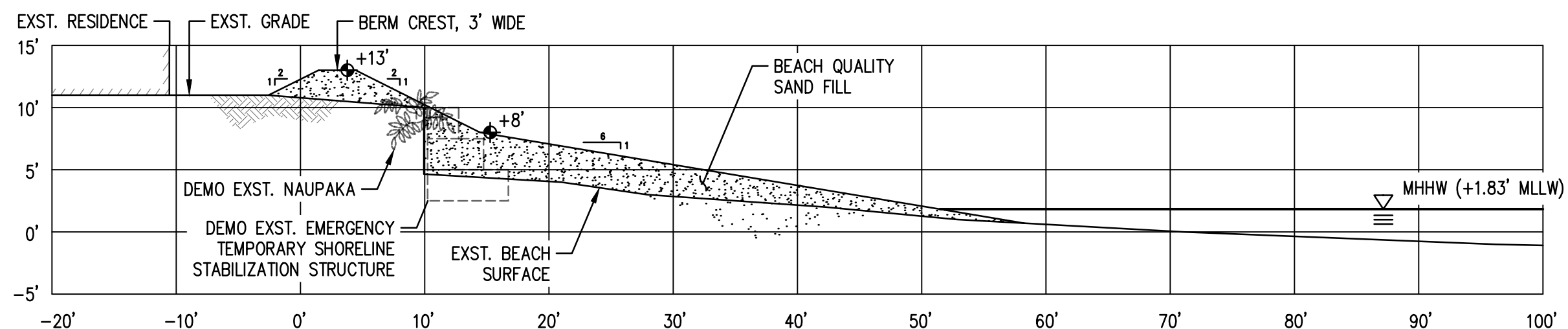
1  
C PROP. SECTION AT TMKS 4-3-009:026 & :027  
SCALE: 1" = 10'-0"



2  
C PROP. SECTION AT TMK 4-3-009:028  
SCALE: 1" = 10'-0"

# CONCEPT SECTIONS NIULANI BEACH RESTORATION

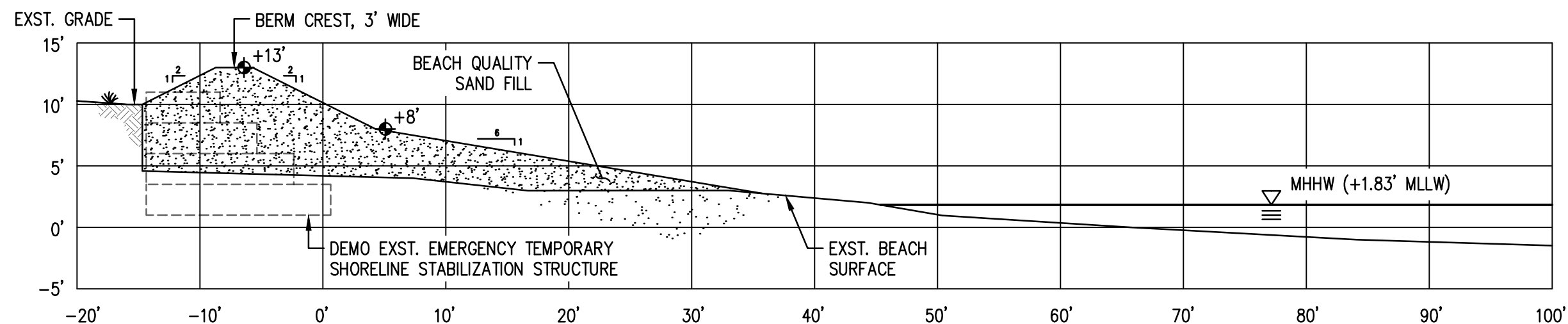




1  
D

PROP. SECTION AT TMK 4-3-009:003

SCALE: 1" = 10'-0"

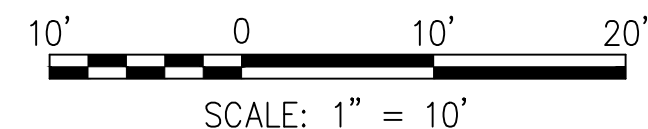


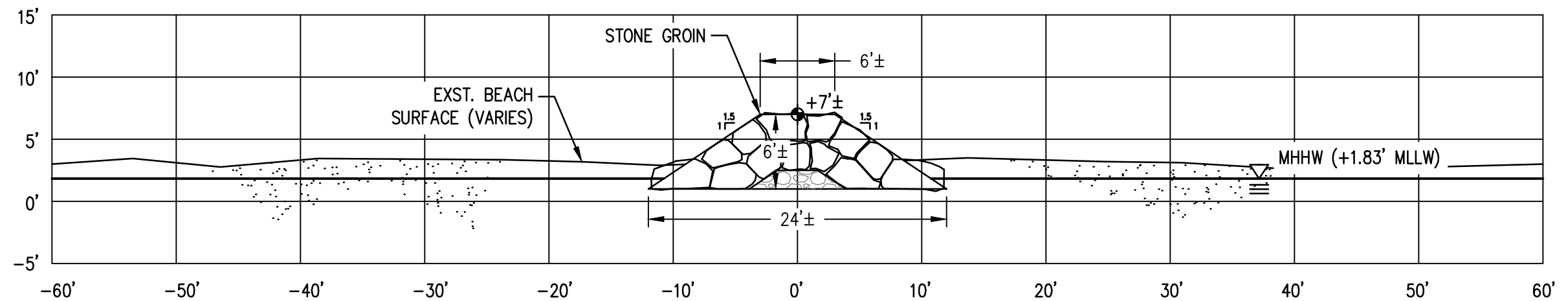
2  
D

PROP. SECTION AT TMK 4-3-009:002

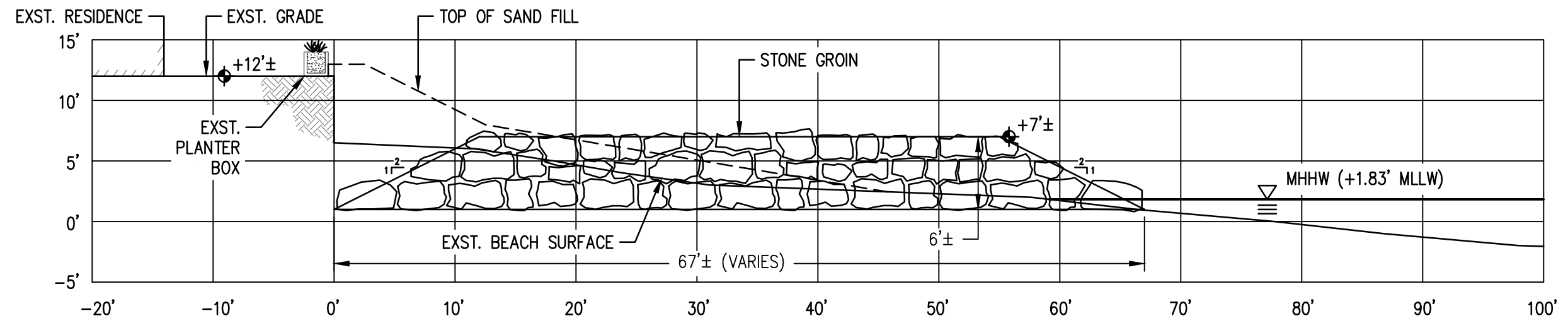
SCALE: 1" = 10'-0"

# CONCEPT SECTIONS (CON'T) NIULANI BEACH RESTORATION



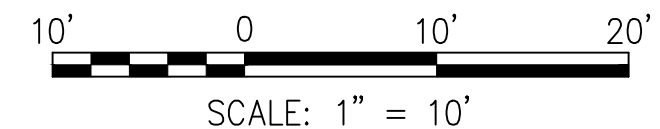


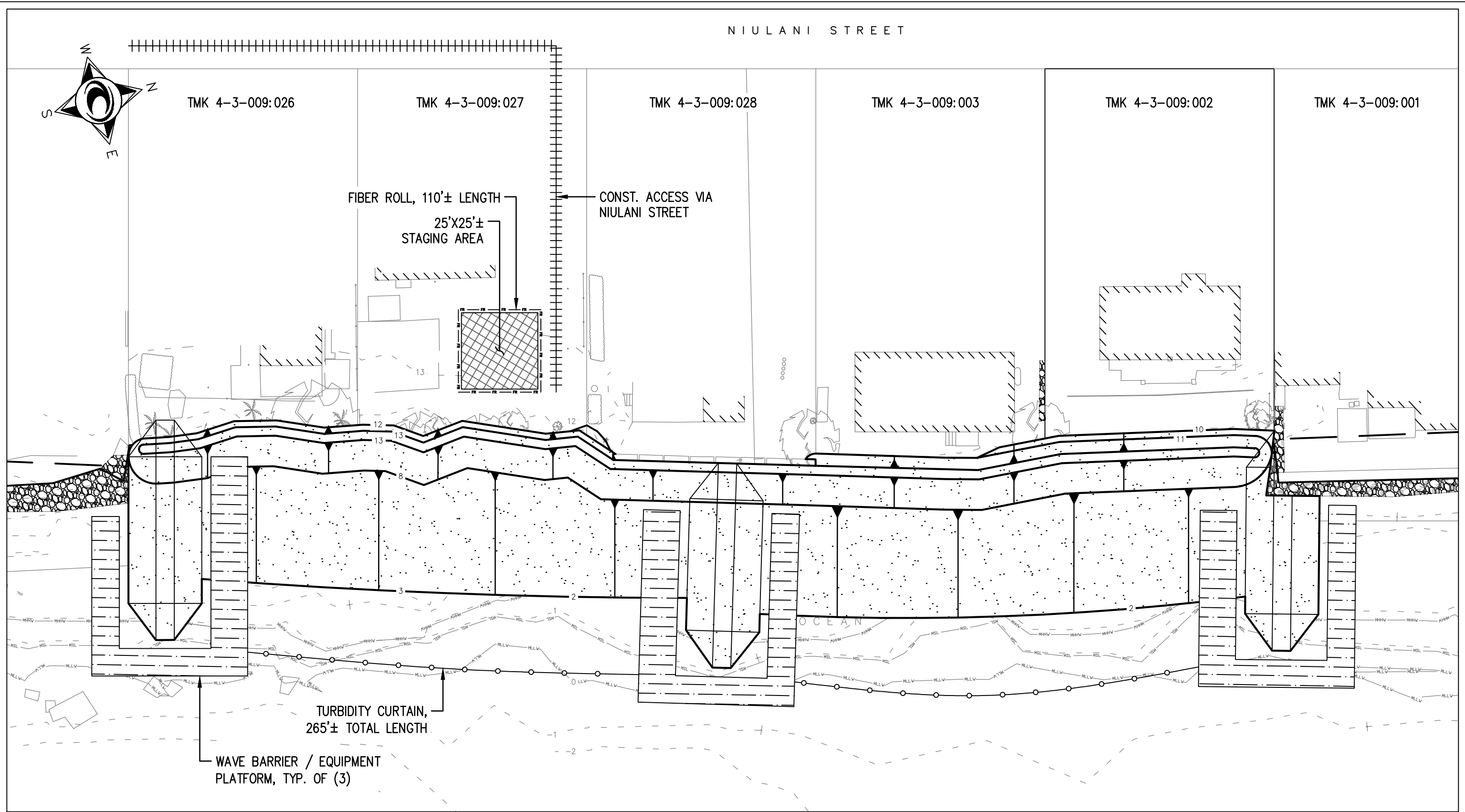
1  
E  
**PROP. CROSS SECTION AT GROIN, TYP.**  
SCALE: 1" = 10'-0"



2  
E  
**PROP. LONGITUDINAL SECTION AT GROIN, TYP.**  
SCALE: 1" = 10'-0"

## CONCEPT SECTIONS (CON'T) NIULANI BEACH RESTORATION





# BEST MANAGEMENT PRACTICES (BMP) PLAN NIULANI BEACH RESTORATION

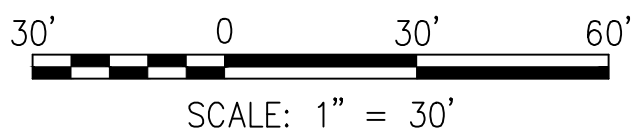
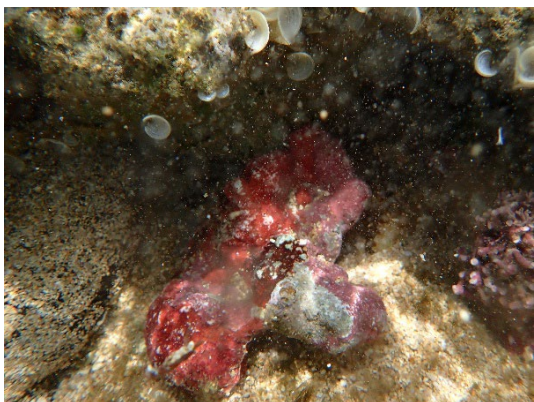


FIGURE F

***Appendix E:***  
***Benthic Photographs***



**Photograph 1.** Field/weather conditions during investigation on April 19, 2025, taken approximately mid-site, fronting TMK 4-3-009:028, looking west.



**Photograph 2.** Crustose coralline algae (CCA) growing on a rock next to *Holothuria atra* which is covered in sand. *Padina sanctae-crucis* is growing in the turf algae above the CCA.



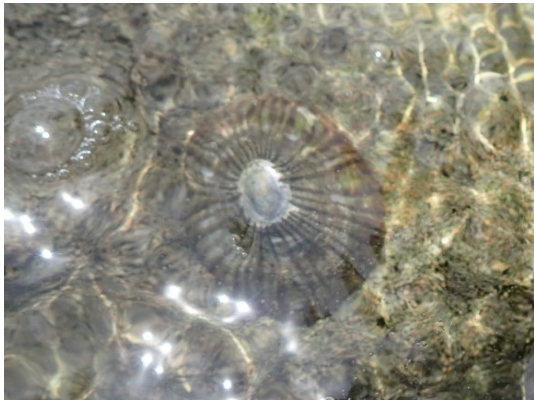
**Photograph 3.** Large fields of turf algae.



**Photograph 4.** *Dictyosphaeria versluysii* growing alongside turf algae.



**Photograph 5.** Loose individual of *Acanthophora spicifera*.



**Photograph 6.** *Cellana exarata*, otherwise referred to as “opihi.”



**Photograph 7.** Intertidal rock covered in juvenile *Cellana sandwicensis*.



**Photograph 8.** *Laurencia mcdermidiae* growing below several stalks of *Turbinaria ornata*.



**Photograph 9.** *Halimeda discoidea* among turf algae.



**Photograph 10.** Turf algae primarily consisting of *Microdictyon spp.*, *Cladophora catenata* and *Laurencia mcdermidiae*.



**Photograph 11.** *Echinometra mathaei* resting on bored holes on the sea floor.



**Photograph 12.** A small community of *Acanthurus triostegus* utilizing submerged rock structures as habitat.



**Photograph 13.** Antler coral: *Pavona spp.*



**Photograph 14.** Mounding coral: *Porites lobata*.



**Photograph 15.** Colony of *Porites spp.*



**Photograph 16.** Colony of *Pocillopora meandrina*.

***Appendix F:***  
***Sediment Analysis Data***



# AECOS, Inc.

45-939 Kamehameha Highway, Suite 104  
Kaneohe HI 9674 (808)234-7770 Fax: (808)234-7775

CLIENT: Oceanit

828 Fort Street Mall, Ste 600  
Honolulu HI 96813

ATTN: Mike Foley / Catherine Hanna  
[channa@oceanit.com](mailto:channa@oceanit.com)

AECOS Job No.: **631**

REPORT DATE: 5/9/2025

## GRAIN SIZE ANALYSIS RESULTS

Date Sampled: 04/19/25, 04/28

Analyzed by: rk, dc

AECOS Log No.: **52735**

Date Received: 4/29/2025

Sample Type: sediment

### Fraction dry weight (g)

| size (mm)          | >4.75 | 4.75 - 4.00 | 4.00 - 2.00 | 2.00 - 1.00 | 1.00 - 0.500 | 0.500 - 0.355 | 0.355 - 0.250 | 0.250 - 0.125 | 0.125 - 0.075 | 0.075 - 0.063 | <0.063 | TOTAL  |
|--------------------|-------|-------------|-------------|-------------|--------------|---------------|---------------|---------------|---------------|---------------|--------|--------|
| phi                |       | -2          | -1          | 0           | 1            |               |               |               |               |               | pan    |        |
| Niulani Beach      | 0.00  | 0.00        | 0.03        | 5.43        | 92.80        | 74.56         | 15.48         | 0.15          | 0.00          | 0.02          | 2.00   | 190.47 |
| Estrella Stockpile | 2.23  | 1.09        | 6.02        | 31.68       | 117.90       | 21.49         | 4.92          | 4.10          | 1.02          | 0.17          | 3.33   | 193.95 |

### Fraction Percent (%) - calculated

| size (mm)          | >4.75 | 4.75 - 4.00 | 4.00 - 2.00 | 2.00 - 1.00 | 1.00 - 0.500 | 0.500 - 0.355 | 0.355 - 0.250 | 0.250 - 0.125 | 0.125 - 0.075 | 0.075 - 0.063 | <0.063 | TOTAL |
|--------------------|-------|-------------|-------------|-------------|--------------|---------------|---------------|---------------|---------------|---------------|--------|-------|
| phi                |       | -2          | -1          | 0           | 1            |               |               |               |               |               | pan    |       |
| Niulani Beach      | 0.00  | 0.00        | 0.02        | 2.85        | 48.72        | 39.15         | 8.13          | 0.08          | 0.00          | 0.01          | 1.05   | 100.0 |
| Estrella Stockpile | 1.15  | 0.56        | 3.10        | 16.33       | 60.79        | 11.08         | 2.54          | 2.11          | 0.53          | 0.09          | 1.72   | 100.0 |

### Percent Finer by Weight (%)

| size (mm)          | >4.75  | 4.00   | 2.00  | 1.00  | 0.500 | 0.355 | 0.250 | 0.125 | 0.075 | 0.063 |
|--------------------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| Niulani Beach      | 100.00 | 100.00 | 99.98 | 97.13 | 48.41 | 9.27  | 1.14  | 1.06  | 1.06  | 1.05  |
| Estrella Stockpile | 98.85  | 98.29  | 95.18 | 78.85 | 18.06 | 6.98  | 4.44  | 2.33  | 1.80  | 1.72  |

### Calcium Carbonate (%)

|                    |     |
|--------------------|-----|
| Niulani Beach      | 95% |
| Estrella Stockpile | 93% |

Grain size analyzed by Mechanical Method in Kroetsch, D., Wang, C., 2008. Particle size distribution, In: Carter, M.R., Gregorich, E.G. (Eds.), Soil Sampling and Methods of Analysis. 2nd Edition. Canadian Society of Soil Science. Taylor and Francis, LLC. Boca Raton, FL. pp 713-725. and ASTM D1140-17, D2217-85 (1998)

CaCO<sub>3</sub> analyzed by method described in Carver, 1971. Procedures in sedimentary petrology. Wiley Interscience. 653 pp.



# AECOS, Inc.

45-939 Kamehameha Highway, Suite 104  
Kaneohe HI 9674 (808)234-7770 Fax: (808)234-7775

CLIENT: Oceanit

828 Fort Street Mall, Ste 600  
Honolulu HI 96813

ATTN: Mike Foley / Catherine Hanna  
[channa@oceanit.com](mailto:channa@oceanit.com)

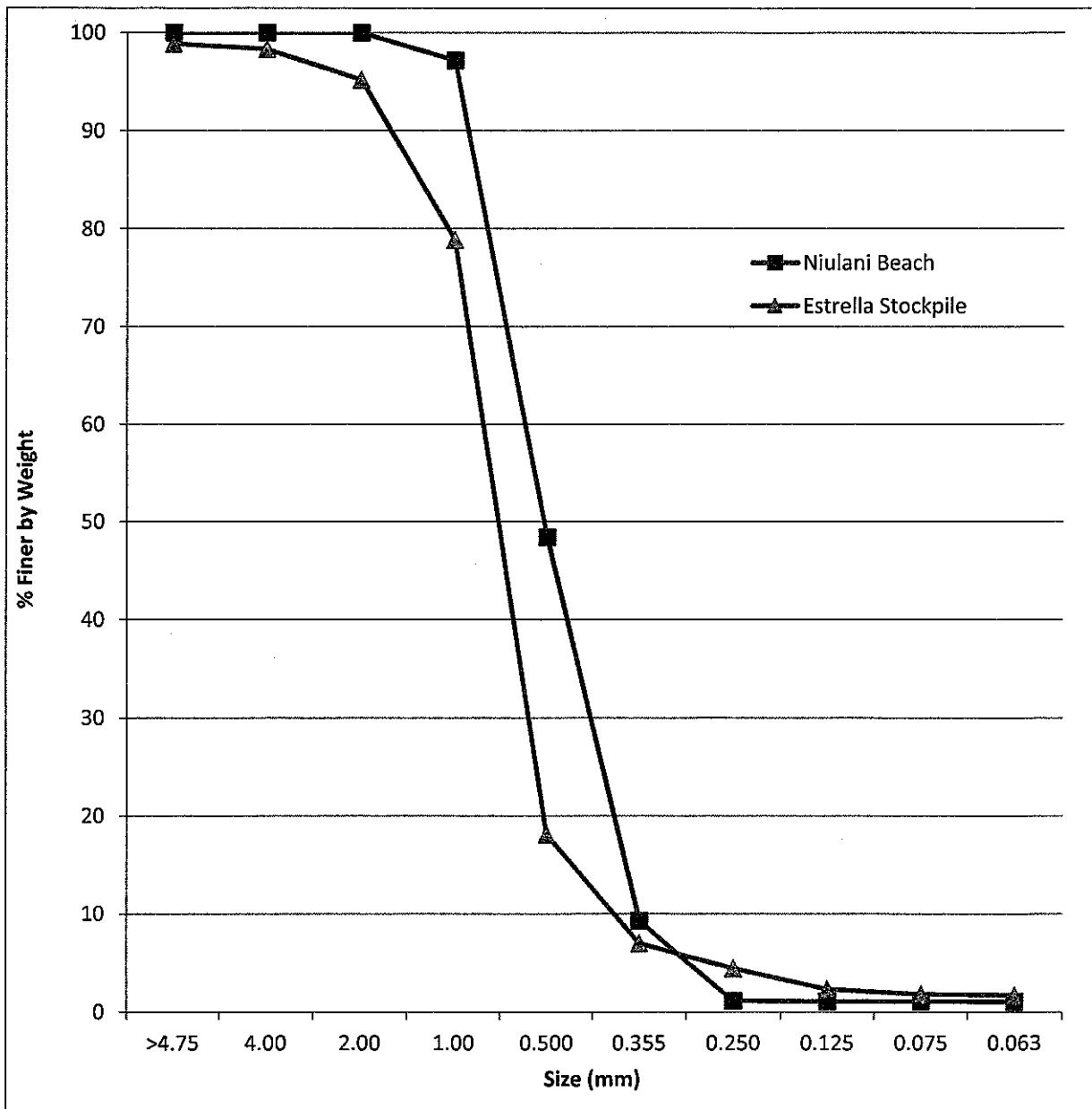
|                |            |
|----------------|------------|
| AECOS Job No.: | <b>631</b> |
| REPORT DATE:   | 5/9/2025   |

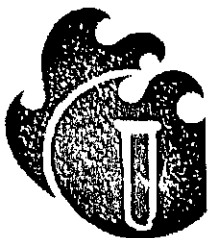
## GRAIN SIZE ANALYSIS RESULTS

Date Sampled: 04/19/25, 04/28  
Date Received: 4/29/2025

Analyzed by: rk, dc  
Sample Type: sediment

AECOS Log No.: **52735**





# AECOS, Inc.

45-939 Kamehameha Highway Suite 104  
Kaneohe, Oahu, HI 96744  
Tel: (808) 234-7770 Fax: 234-7775

## CHAIN OF CUSTODY FORM

PROJECT  
FILE No.

10231 Niulani Hui

LOG NUMBER

0527351

CLIENT: Oceanit

ADDRESS: 828 Fort Street Mall, Suite 600  
Honolulu, HI 96813

CONTACT: Mike Foley

PHONE No.: (808) 807-3880

Purchase Order No.:

☒ RUSH

☐ SEE REVERSE

SPECIAL INSTRUCTIONS

| SAMPLED |                                     |                    |         |          |             |              |                                                                           |              |
|---------|-------------------------------------|--------------------|---------|----------|-------------|--------------|---------------------------------------------------------------------------|--------------|
|         | <input checked="" type="checkbox"/> | SAMPLE ID          | DATE    | TIME     | SAMPLE TYPE | CONTAINER(S) | REQUESTED ANALYSES                                                        | PRESERVATION |
| 1       |                                     | Niulani Beach      | 4/19/25 | 8:30am   | Sediment    | 1 Ziploc     | Std. grain size (ASTM D1140-92 & D2217-93) and CaCO <sub>3</sub> analyses | None         |
| 2       |                                     | Estrella Stockpile | 4/28/25 | 10:00 AM | Sediment    | 1 Ziploc     | Std. grain size (ASTM D1140-92 & D2217-93) and CaCO <sub>3</sub> analyses | None         |
| 3       |                                     |                    |         |          |             |              |                                                                           |              |
| 4       |                                     |                    |         |          |             |              |                                                                           |              |
| 5       |                                     |                    |         |          |             |              |                                                                           |              |
| 6       |                                     |                    |         |          |             |              |                                                                           |              |
| 7       |                                     |                    |         |          |             |              |                                                                           |              |
| 8       |                                     |                    |         |          |             |              |                                                                           |              |
| 9       |                                     |                    |         |          |             |              |                                                                           |              |
| 10      |                                     |                    |         |          |             |              |                                                                           |              |

CLIENTS PROVIDING SAMPLES TO THE LABORATORY SHOULD COMPLETE AS MUCH OF THE ABOVE FORM AS POSSIBLE. NOTE: NAME AND DATED SIGNATURE OF PERSON COLLECTING THE SAMPLE MUST BE ENTERED BELOW. INFORMATION REQUESTED IN SHADED BOXES ABOVE TO BE FILLED IN BY THE LABORATORY.

SAMPLED BY:

Bryson Gonzalez

PRINT NAME

RELINQUISHED:

SIGNATURE

DATE

4/19 20 25

DATE

4/29/25 20 25

TIME

RECEIVED BY:

SIGNATURE

RELINQUISHED:

SIGNATURE OR INITIALS

DATE

20 25

TIME

DATE

20 25

TIME

RECEIVED FOR LABORATORY:

SIGNATURE

RELINQUISHED:

SIGNATURE OR INITIALS

DATE 4/29

20 25

TIME 0848

DATE

20 25

TIME

COMMENTS:

white CoC copied onto blue

USE (BLACK) INK

PRECAUTIONS:

DISPOSAL:

RETURN SAMPLE TO CLIENT ☐

T = 27.0 °C

***Appendix G:***

***Applicable Monitoring and Assessment Plan (AMAP)***

# Applicable Monitoring and Assessment Plan for Small-Scale Beach Nourishment Application

---

## Niulani Road Hui Beach Restoration

Kapa'a, Kaua'i, Hawai'i

*Prepared for:*



State of Hawai'i Department of Land and Natural Resources  
Office of Conservation and Coastal Lands  
P.O. Box 621  
Honolulu, HI 96809

*Prepared by:*

Oceanit Laboratories, Inc.  
828 Fort Street Mall, Suite 600  
Honolulu, HI 96813

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## ATTACHMENTS

Attachment A: Field Sample Log Sheet  
Attachment B: Sample Chain of Custody

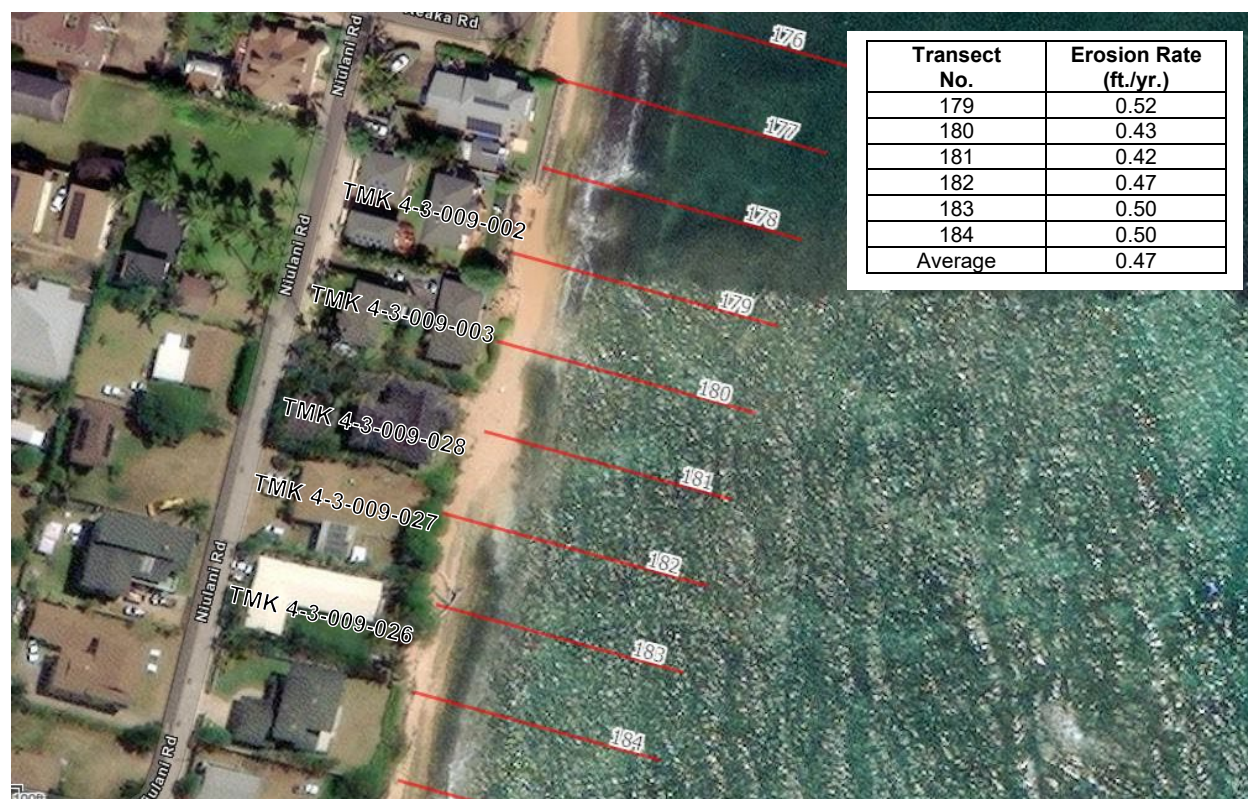
## **1. Introduction**

This Applicable Monitoring and Assessment Plan (AMAP) is part of the Small-Scale Beach Nourishment (SSBN) application for the beach nourishment and stabilization structure construction at the shoreline fronting five (5) consecutive properties along Niulani Road: 968, 960, 950, 946 and 938 Niulani Road. The intent of the AMAP is to identify and prevent potential impacts to water quality from construction activities. Data collected as part of the AMAP will be used to determine the adequacy of the Best Management Practices (BMPs) applied during construction and help assess the impact of the project on the nearshore waters. If monitoring data show water quality impacts from construction, BMPs will be modified to protect water quality. The SSBN also includes future renourishment events over the course of fifteen (15) years after initial nourishment. This AMAP is only prepared for the initial beach nourishment and stabilization structure construction and will be amended as needed over the duration of the activities specified in the SSBN.

### **1.1 Project Background**

The project site is located seaward of five (5) properties, Tax Map Keys (TMKs) (4) 4-3-009:002, :003, :028, :027 and :026, along Niulani Road, makai of Kūhiō Highway, on the east side of the island of Kaua‘i, Hawai‘i. The site is situated at the middle section of the shoreline bounded by Waika‘ea Canal at the north and Waipouli Drainage Canal at the south.

Currently, the beach and shoreline fronting the subject properties show distinct erosion. The historical trend of shoreline erosion at the site was studied by the Coastal Research Collaborative at the University of Hawai‘i at Mānoa (U.H.). Using historical images and data from 1950 to 2014, the University determined that the shoreline position at the site has moved inland at an average rate of about 0.47 feet per year (ft./yr.) (Figure 1).



**Figure 1. Historic shoreline erosion rates at project site (U.H. SOEST Coastal Research Collaborative, 2021)**

Based on monthly Mean Sea Level (MSL) data from 1955-2024 from the nearby tidal station in Nawiliwili (Station ID: 1611400), the relative sea level trend around the project area is rising at about 1.85 millimeters per year. The Hawai'i State Sea Level Rise Vulnerability and Adaptation Report predicted that the subject properties would be severely impacted by shoreline erosion due to a 0.5 ft. ocean level increase (Hawai'i Climate Change Mitigation and Adaption Commission, 2017). The report predicts that we will observe this level of sea rise by about 2030, accounting for global warming assuming no reduction in greenhouse gas emissions from current levels. More recent studies by National Oceanic and Atmospheric Administration (NOAA) suggest that up to 3.2 ft. of sea level rise could occur as early as the year 2060 under extreme global warming scenarios (Sweet et al., 2017).

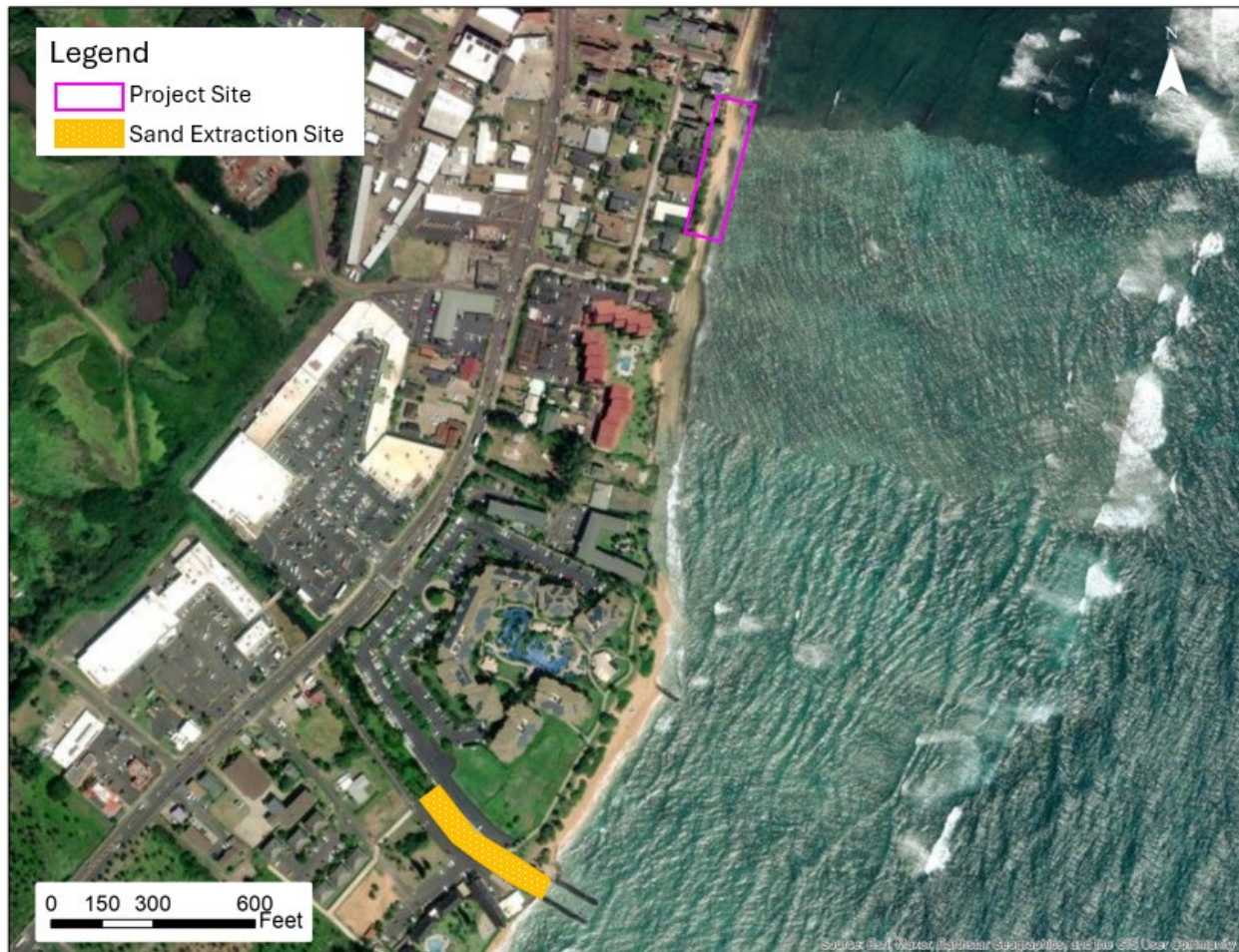
The project area is exposed to persistent trade winds and rough seas throughout the year. Rising sea levels and more frequent extreme high tide events cause waves to break further near to the shore, likely to exacerbate the overall erosion process. This SSBN application proposes a long-term, regional solution to manage the coastal hazards and help minimize risks to public safety by restoring the beach area and constructing three (3) rock groins to stabilize the sand nourishment.

## 1.2 Project Description

The project involves nourishing the existing beach with compatible, beach quality sand as well as installing three (3) rock groins to stabilize the beach fill. The initial beach nourishment event requires approximately 2,000 cubic yards (cu. yd.) of beach quality sand. 500 cu. yd. of sand is

currently available for use and is stockpiled at a nearby site, Estrella Enterprises' baseyard. This 500 cu. yd. of excess sand was previously dredged from the mouth of the Waipouli Drainage Canal as part of the 2023 Kaua'i Kailani Beach Restoration project. The remaining estimated 1,500 cu. yd. of sand needed for initial nourishment is intended to be recovered from the same canal via mechanical dredging during the Niulani Beach Restoration project. Future renourishment events are expected to occur every three (3) to five (5) years over the course of fifteen (15) years after initial nourishment, with an estimated sand fill quantity of 500 cu. yd each renourishment event. These future as-needed maintenance nourishment events are also expected to source sand from the Waipouli Drainage Canal. See Figure 2 for the location of the sand extraction site. Should the available sand volume be insufficient to complete the initial or maintenance nourishment events, an alternative sand source may be proposed and submitted to the appropriate regulatory agencies for approval.

The time for the proposed sand placement and rock groin construction, including mobilization and demobilization, will be approximately four (4) to six (6) months. Future renourishment events, if needed, may take approximately two (2) months.



**Figure 2. Location of sand extraction site**

### 1.3 Water Quality BMPs

Water quality BMPs will be performed to ensure no leakages of pollutants are released into open ocean waters. Water quality BMPs will consist of a temporary wave barrier (e.g., using bulk lift bags or AquaDam) placed around the groin installation sites and a turbidity curtain along the seaward perimeter of the nourishment area to contain sediments and reduce risks from waves entering the work zone. Additionally, fiber roll containment structures will be placed around the construction access and staging areas (Figure 3) to prevent any sediment from entering the surrounding waters. A turbidity containment device will also be deployed completely around the sand recovery site. See the BMP plan sheet (Figure F) of the Niulani Beach Restoration Concepts (Appendix D) for more details.



**Figure 3. Construction access and staging area**

### 1.4 Discharge Characteristics

Permanent discharge materials will consist of beach material transferred from sand sources that will be added to the nourishment site as well as three (3) rock groin stabilization structures.

Temporary discharge materials may consist of the temporary wave barrier (with the ability to double as a platform for construction equipment), constructed by stacking triple-walled geotextile

bulk lift bags filled with dredged sand. The geotextile bags will be removed from the site and the sand contents will be used as part of the nourishment when the BMP is no longer needed. No equipment will be allowed to drive in the water; all construction will be carried out with shore-based equipment.

## **1.5 Environmental Description**

The project site is located in Kapa‘a on the island of Kaua‘i, the oldest of the Hawaiian Islands. The climate in Kapa‘a has an average annual temperature of about 74.3 degrees Fahrenheit (°F), and ranges between about 78°F in the summer and 71°F in the winter (Giambelluca et al., 2014). The annual mean average rainfall of Kapa‘a is approximately 40.6 inches per year, with the majority of the precipitation occurring between the months of October and December (Giambelluca et al., 2013). Elevations at the site range from sea level to approximately 11 ft. above sea level. The land use mauka of the project area is residential. The site does not currently have many recreational users; however, the proposed beach restoration will increase opportunities for recreational use.

The project shoreline is part of Waipouli Beach. Currently, within the proposed project area, about 60 percent of the bottom type is limestone, 10 percent is rubble stone, and approximately 30 percent is carbonate beach sand, which rests above the underlying limestone substrate. The waters of Kapa‘a, Kaua‘i are designated Class A by the State of Hawai‘i Chapter 11-54 Water Quality Standards for open coastal waters.

Soils specific to the project site are Beaches (BS) and Mokuleia Fine Sandy Loam (Mr). BS soils consist of coarse sand derived from coral and seashells and are excessively drained with very low runoff. Mr soils consist of well-drained soils found along the coastal plains with very low runoff (NRCS, 2017).

## **2. Monitoring Program**

The monitoring program follows the general monitoring Guidelines for the Section 401 Water Quality Certification (WQC) projects (DOH, 2009). Construction will take approximately four (4) to six (6) months and work will be timed for low tide, low wave conditions. Photo documentation of the site during construction will be conducted. A qualified field technician will be present during in-water construction to visually monitor and photo-document for permit compliance.

### **2.1 Organization and Responsibilities**

Table 1 provides the names, responsibilities and qualifications of the personnel involved with this AMAP. *In situ* measurements will be performed by a qualified field technician. The contractor will perform the visual observations for the entire duration of in-water work to ensure that the activities do not result in adverse impacts to nearshore waters.

Qualified field technicians will conduct *in situ* water quality monitoring for pre-construction, during construction and post-construction monitoring. Site conditions will be noted and photographs will be taken during each field monitoring event. Photographs will be made at each sampling site and in the work area during construction and will be accompanied by detailed descriptions and time and date stamps. Geographic Position System (GPS) coordinates of the monitoring sites will be recorded during monitoring.

Field technicians will document at a minimum, the name of technician, date, time, tidal stage, wave conditions, current, weather conditions, location and condition of BMPs, and construction activity.

### **2.2 Project Personnel**

The roles and responsibilities of key project personnel will be further defined at the beginning of the project and implemented by the monitoring contractor. The organizational structure will ensure that all project personnel will receive proper and accurate information and instructions on quality assurance and quality control (QA/QC) procedures to be followed throughout the monitoring process.

**Table 1. Project personnel responsibilities and qualifications**

| <b>Personnel</b>                                             | <b>Responsibilities Relating To Water Quality</b>                                                                                                                                 | <b>Qualifications</b>                                                                                             |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Contractor's Construction Site Manager<br>To Be Determined * | Responsible for overall management of construction site, daily inspection of site and BMPs, taking photographs from predetermined positions and entering observations in site log | Designated by the contractor                                                                                      |
| Monitoring Personnel<br>Qualified Technician                 | Conducts field visits, obtains photographs and work descriptions, and obtains samples for water quality analysis                                                                  | Trained and experienced in site safety, water sampling methodology, and application of BMPs on construction sites |
| Design Consultant<br>Oceanit                                 | Assists with design and construction issues for the project                                                                                                                       | College degree in Coastal/Civil Engineering; licensed Professional Engineer                                       |

\* Information will be provided within thirty (30) days after contract award.

## 2.3 Project Schedule

Total project construction will span approximately four (4) to six (6) months. Commencement of the construction will depend on concurrence from regulatory agencies.

### **3. Sampling and Analysis Plan**

#### **3.1 Introduction**

This section presents a plan for the implementation of the sampling and analysis activities for the project before, during, and after the construction phase. The applicable requirements are given below.

The procedures described in this section are developed to provide sufficiently detailed instructions to consistently conduct water quality monitoring and assessment activities and ensure a high level of quality assurance independent of the sampling personnel.

#### **3.2 Objectives and Scope**

The objectives of this AMAP will abide with those of the Clean Water Act (CWA), one of which is to minimize pollution of waters of the United States from construction activities. Section 401 of the CWA (33 USC 1341) provides a process for states to ensure that federally permitted activities comply with State Water Quality Standards. The permit holder is responsible for developing and implementing BMPs to avoid or minimize discharge of pollutants from the permitted activity. The purpose of this AMAP is to create an environmental awareness by photo documentation and to describe a water sampling and analysis process that will determine the effectiveness of the BMPs proposed for the project. The plan is developed to verify whether average concentrations of contaminants/parameters of potential concern measured in waters adjacent to the project site during construction activities indicate the adequacy and effectiveness of the BMPs installed and whether modifications to BMPs are necessary. Comparing the results of monitoring during construction with respective pre-construction monitoring data will show impacts on water quality and direct correction of any problems with the BMPs as well as identify whether adjustments to construction activities are necessitated. The proposed monitoring will be conducted pre-, during, and post-construction.

As discussed in Section 1.3 of this AMAP (above), temporary water quality BMPs will be performed to ensure no leakages of pollutants are released into open ocean waters. As discussed in Section 1.4 of this AMAP (above), permanent materials associated with the project are the beach fill as part of beach nourishment and three (3) rock groins.

Any water contamination event shall be reported by telephone or email to the State of Hawai'i Department of Health (DOH) Clean Water Branch (CWB) and Department of Land and Natural Resources (DLNR) Office of Conservation and Coastal Lands (OCCL) within twenty-four (24) hours or by the end of the next business day.

In addition to the above precautions, a comprehensive water quality monitoring program will be implemented to avoid, minimize, and mitigate any potential water pollution, and modify BMPs or work procedures if contamination from work activities is detected.

#### **3.3 Monitoring Approach**

The following process serves as the framework for this AMAP. The monitoring will cover a period before, during, and after construction ends. Monitoring parameters are decided by the type of

construction and the possible contaminants the activity may release into coastal waters. For the proposed project, pH, turbidity, total suspended solids (TSS), salinity, dissolved oxygen (DO), and temperature will be monitored to establish background conditions, conditions during construction, and conditions after construction is completed. *In situ* monitoring and measurements will be conducted by personnel who are trained and experienced in performing all operations, maintenance, calibration and secondary checking activities in accordance with manufacturer guidelines.

Parameters at each monitoring site will be measured in the field with appropriate field instruments for pH, turbidity, TSS, salinity, DO, and temperature. Monitoring personnel will also perform visual inspections during monitoring and document the date, time, weather conditions, construction activities, location, condition of the BMPs and any other activities related or unrelated to construction that may impact water quality. These observations will be submitted as a part of the monitoring report. All monitoring activities shall also include photographic documentation of site conditions. All photographs related to this monitoring effort will be date- and time-stamped. The locations for photo documentation points will be marked with GPS coordinates.

The construction contractor will designate a representative to perform daily visual inspections of the construction site, including the condition of any BMPs to ensure no adverse impacts occur to coastal waters. The information recorded by the contractor's representative will also include all information provided by the monitoring personnel. A written monitoring report will be submitted to DOH CWB and DLNR OCCL within twenty-four (24) hours or by the end of the next business day.

A copy of the contractor's daily observations will be used to prepare the final monitoring report. Due to the variability associated with sample collection methodology and equipment and variability within each of the Decision Units (DUs), the monitoring consultant shall use a *MULTI-INCREMENT*® sampling approach for each of the DUs. *MULTI-INCREMENT*® is a registered trademark of EnviroStat, Inc. and all *MULTI-INCREMENT*® samples must be collected in accordance with the trademark requirements.

### **3.4 Sampling Decision Units**

There will be three (3) DUs where water quality monitoring will be conducted. These are selected to represent baseline water quality in the vicinity of the project site (i.e., Baseline DU), water quality condition at the worksite within the area protected by the BMPs (i.e., Work Zone DU), and the area immediately outside the BMPs where the most severe impacts are expected (i.e., Impact DU). Each of the locations for the suggested DUs are shown in Figure 4.

*Baseline DU* will be located in the nearshore area that will be similar in character to the project site and exposed to similar environmental changes. This site should be located outside the potential area of impacts from construction activities.

*Work Zone DU* will be located between the temporary wave barrier BMP and the proposed construction area.

*Impact DU* will be located immediately outside the temporary wave barrier BMP. This monitoring area will be the most probable area contaminated if the BMP does not function as expected. The area within the Impact DU will be visually inspected.

Other areas will include any area located within the project area, but outside the DUs, where the water quality is obviously being impacted by construction activities. The monitoring consultant shall inspect the impacted area(s) and determine the sampling locations.



**Figure 4. Sampling decision unit map**

### **3.5 Monitoring Procedures**

Monitored parameters are shown in Table 2. All water samples will be collected using a *MULTI INCREMENT*® sampling approach with an appropriate water quality probe that can measure turbidity, salinity, pH, DO, and temperature. Measurements will be made before, during, and after construction for evaluation of any changes in water quality as a result of construction.

#### *3.5.1 Pre-Construction Monitoring*

Prior to construction, average background water quality characteristics in the three (3) DUs shall be monitored before construction begins to determine existing water quality conditions. At least

ten (10) samples will be collected over a two-week period prior to the start of construction. Pre-construction samples shall be collected to represent the entire Impact DU so that meaningful decisions can be made on actionable events during construction.

### *3.5.2 During Construction Monitoring*

During in water work, average values of the water quality parameters within the project area isolated from the nearshore waters by BMPs (i.e., Work Zone DU), the Baseline DU and Impact DU will be monitored daily. A qualified observer will also be present during construction to ensure that areas outside the BMP are not impacted by turbidity. If a plume is observed, the size and location of the plume will be described in an accompanying narrative and documented photographically. If a turbidity plume is observed outside the area isolated by the BMP, the work should stop immediately. Monitoring, including photo documentation, will be conducted daily during the entire construction period. All photographs related to this sampling effort will be date- and time-stamped.

### *3.5.3 Post-Construction Monitoring*

Following construction, water quality will be measured twenty-four (24) hours after construction is completed and the BMPs are removed from the Baseline and Impact DUs. The monitoring will also include photo documentation and is aimed at establishing whether nearshore water quality has been impacted permanently by construction activities.

## **3.6 Decision Statement**

The objectives of sampling, as defined by the decision statement, are 1) to determine whether concentrations of potential pollutants detected in the Impact DU during construction indicate conditions that require changes to installed BMPs to minimize further pollution discharge into the ocean and 2) to document and report site conditions to the DOH CWB and DLNR OCCL. To achieve these objectives, the quality and spatial spread of the water quality data should provide adequate and reliable information on the average concentrations of the identified pollutants.

Pre-construction sampling data will be analyzed to establish the range, geometric mean and standard deviations of the parameters measured. This will provide a baseline for average and natural spread of water quality parameters in the area. Decision values (values indicating an actionable event) are defined as the value for each parameter obtained from all data collected during pre-construction and Baseline DU sampling events. The pH should be within the range measured during pre-construction. The other parameters should not exceed the pre-construction mean plus one (1) standard deviation. An actionable event occurs when the measured value of any of the parameters of concern exceeds the above defined value.

The following sections provide guidance to develop a field sampling plan for this project. The sampling consultant will follow the guidelines as close as possible and document any deviations due to specific site conditions.

### 3.7 Sampling Parameters

Rationale for developing sampling parameters was discussed in Section 3.6 of this AMAP (above). Monitoring parameters and the relevant criteria are summarized in Table 2.

A 6-Series, model 6600 V2 Multiparameter Water Quality Sonde made by Yellow Spring Instruments (YSI) or equivalent is the recommended instrument for all parameters except TSS, which is analyzed in a laboratory.

**Table 2. Water quality monitoring parameters**

| Parameter | Units    | Accuracy          | Detectable Level | Sensitivity | Container Type | Holding Time | Min. Vol., mL |
|-----------|----------|-------------------|------------------|-------------|----------------|--------------|---------------|
| Turbidity | NTU      | 0.5 NTU           | 0 NTU            | 0.1 NTU     | P,G            | ASAP         | 100           |
| pH        | pH units | ±0.2 units        | 0 units          | 0.01 units  | P,G            | ASAP         | 100           |
| Temp.     | Deg. C   | ±0.15°C           | -5 °C            | 0.01 °C     | P,G            | ASAP         |               |
| Salinity  | ppt      | ±1.0% or 0.1 ppt  | 0 ppt            | 0.01 ppt    | P,G            | 7 days       | 500           |
| DO        | mg/L     | 0.01 mg/L or 0.1% | 0 mg/L           | 0 mg/L      | P,G            | ASAP         | 100           |
| TSS       | mg/L     |                   |                  |             | P,G            | 7 days       | 1,000         |

°C = degrees Celsius

ASAP = as soon as possible

DO = dissolved oxygen

G = glass

mg/L = milligrams per liter

NTU = nephelometric turbidity units

P = plastic

ppt = parts per thousand

TSS = total suspended solids

### 3.8 Field Methods

This section provides general field methods that may be employed by the monitoring consultant to conduct water quality monitoring. The sampling operations shall comply with established sampling protocols to ensure quality assurance and monitoring goals. All samples shall be collected using a *MULTI INCREMENT*® approach.

Water Sampling and Analysis – New or pre-cleaned sampling equipment and/or containers shall be used to receive the water samples collected from each DU (Table 2). The sample containers shall be appropriately labeled with the project name, sample identification information, and the

date/time of sample collection. A new pair of disposable gloves shall be used for collecting each sample.

Parameters with a holding time of ‘ASAP’ shall be collected in the specified container type and measured in the field using portable instruments such as YSI Sondes or equivalent. Salinity will also be measured with a portable instrument. TSS samples shall be delivered to an analytical laboratory in accordance with sample storage and holding time requirements. The Chain of Custody (COC) procedures shall be used to ensure possession and handling of samples to be traced from collection to the final destination. A sample COC form is shown in Attachment B. The laboratory shall be instructed to analyze the samples on a 48-hour turnaround time basis.

Sample Control – Sample control includes the methods used to identify, label, transport, and maintain the integrity of samples: sample identification, sample labeling, COC procedures and sample transport. The industry standard criteria for sample control are described in Section 4 of this AMAP (below).

Sample Handling – After sample collection, proper sample handling will ensure that changes in the constituents of interest are minimized and will guard against errors when shipping and analyzing samples. Samples for field measurement will be transferred to a glass or plastic container (such as a beaker) where parameters will be measured with field equipment. Samples for TSS to be delivered to the analytical laboratory shall be kept in insulated coolers packed with frozen gel packs or wet ice. Sample containers will be capped, placed into re-sealable plastic bags, and then placed on ice in a cooler for transport to a laboratory. Samples will be delivered to the laboratory immediately after collection. COC forms shall be placed inside sealable plastic storage bags and placed inside the sample cooler and kept below 4° C. COC copies shall be maintained on-site. The monitoring consultant shall alert the laboratory personnel early to be available to receive the samples to avoid misunderstandings that might compromise the samples.

Investigation-Derived Waste – Investigation-derived waste includes disposable personal protective equipment (PPE) (e.g., gloves), disposable sampling equipment, and any other material generated that came in contact with potentially contaminated materials.

Record Keeping and Reporting – Date- and time-stamped photographs, documents, and field logs shall be maintained as necessary for implementing and recording the above-described procedures. The logbook shall contain pertinent information including location, time on site, personnel and equipment present, downtime, materials used, samples collected, measurement(s) taken, unusual incidents, and any other observations or information necessary to reconstruct field activities at that time. A Field Sample Log Sheet is shown in Attachment A.

## **4. Sampling QA/QC**

### **4.1 Introduction**

The procedures outlined in this QA/QC section are to ensure that:

- Samples are collected, processed, stored, shipped, and analyzed using acceptable standardized procedures;
- Quality of generated data is documented adequately;
- Results are reported completely and accurately; and
- Security and integrity of samples and data are maintained at all times.

### **4.2 Applicable Requirements**

The applicable requirements for this project shall be the current State of Hawai‘i Water Quality Standards for discharge into Class A Waters. The “wet” water quality criterion for coastal waters at the project area will be used for determining water quality standards. Monitoring parameters and the relevant criteria to be followed are summarized in Table 2.

Procedures covered in this AMAP are specific to this individual project site. This section addresses the QA/QC plan elements described in “Guidance for Preparation of Combined Work/Quality Assurance Project Plans for Environmental Monitoring” (U.S. EPA, 1996). Elements of QA/QC related to environmental sampling are identified below and discussed in Sections 4.3 and 4.4 of this AMAP (below).

- Decision units;
- Sampling methods;
- Sampling frequency;
- Sampling preparation;
- Sample size;
- Sample containers;
- Sample preservation;
- Sample holding times;
- Sample handling;
- Sample labeling;
- Field instrumentation;
- General maintenance and calibration;
- Log keeping;
- COC record; and

- Sample shipping.

#### *4.2.1 Sampling Preparation*

Sampling activities in this AMAP will be discussed and/or reviewed by all personnel involved in the sampling activity. Deviation from this AMAP due to any unforeseen site conditions or changes in construction methods must be discussed with and accepted by DOH and DLNR before implementation. Preparation for sampling includes the following activities:

- The contractor will be responsible for contracting and coordinating with a third-party water quality monitoring consultant to execute this AMAP. The consultant will create a Field Sampling Plan to incorporate the information included in this section;
- Obtain written approval for this AMAP from DOH and DLNR.
- Calibrate field measurement instruments according to Standard Operating Procedures (SOPs);
- Obtain properly cleaned containers of appropriate sample size;
- Prepare sample bottles with labels, coolers, ice, and other necessary materials;
- Set-up field documenting forms, COC, etc.;
- Prepare instruments and safety gear specific to the job site;
- If necessary, make arrangements for a boat for sampling at the baseline and impact decision units;
- Review of all pertinent QA/QC procedures; and
- Inform laboratory of possible TSS sample delivery.

Planning should ensure that study objectives and their relative importance and priority are understood by all field personnel. This planning will ensure adequate evaluation of impacts of any field deviation from the plan on overall project goals. An equipment checklist should be prepared to ensure availability of all tools and supplies. All equipment should be cleaned and stored in working condition after each sampling episode.

#### *4.2.2 Field Instruments*

Parameters frequently measured with field instruments are turbidity, pH, temperature, DO, and salinity. All field measurements will be made with portable measurement devices such as those produced by YSI or their equivalents. These instruments should be operated by trained personnel in accordance with their respective SOPs. The following precautions should be taken when transporting and using the equipment in the field:

- Ensure that cables are sufficiently long for operation at sites;
- Electrical cables should not be excessively strained;
- Electrical connectors should be waterproof;

- Ensure that the instrument operating range and accuracy are within acceptable limits for the project;
- Instruments should be allowed to warm-up before calibration or field use;
- Sensors should be calibrated before use;
- Instruments should be field checked at the beginning of each day's measurements and before and after monitoring;
- Sensors should be rinsed with distilled water after each measurement;
- Optical surfaces should be cleaned with alcohol and lens tissue between measurements;
- Instruments should be transported in boxes designed for this purpose;
- Instruments should be protected from heating and direct sunlight; and
- External sensors should be covered and adequately protected whenever the instrument is not being used.

#### *4.2.3 General Maintenance and Calibration*

Routine maintenance inspection of field instruments should follow the manufacturer's recommendations. General procedures include:

- All rubber parts that may get immersed should be coated with silicone grease;
- Connectors should be inspected for bent or broken pins, which may cause faulty connections and flooded cables;
- Cables should be inspected for nicks, cuts, abrasions, or other signs of physical damage;
- Seals should be inspected and periodically cleaned and greased to ensure a waterproof fit;
- Desiccant should be inspected and replaced with fresh or reactivated desiccant when necessary; and
- Replace batteries regularly and also whenever low power is indicated.

Factory servicing and calibration should be made annually or when instrument malfunctions cannot be corrected by following the operations manual. Factory calibrations may also be required when certain major components of the system are replaced. Calibration log sheets shall accompany a report that uses data from the instrument. All field check results should be entered in the field log sheet. A Field Sample Log Sheet is shown in Attachment A.

#### *4.2.4 Log Keeping*

A field sample log sheet (see Attachment A) will be used each time the site is visited. This log sheet can be combined with the COC form (see Attachment B) where convenient. However, all the following information should be entered:

- Project title;

- Date and time;
- Contractor's work-in-progress;
- Sampling location/DU;
- Sample number;
- Replicate number if applicable;
- Weather conditions;
- Comments on sample condition;
- Comments on sample quality;
- Names of members of the sampling crew;
- General site conditions; and
- Photo log.

### **4.3 Sampling and Analysis**

#### *4.3.1 Sample Container Preparation*

Sample containers will be cleaned and prepared using industry accepted cleaning and preservation procedures. The recommended sample sizes, type of containers, preservation, and holding times for samples are listed in Table 2.

Sample labels must be waterproof and must be securely fastened to the outside of each sample container to prevent misidentification of samples. Labels must contain at least the project name, sample number, preservation technique, date and time of collection, sample location, and name of sample collector. Labels should be marked with indelible ink.

#### *4.3.2 Sample Handling*

Containers for TSS samples will be capped, placed into re-sealable plastic bags, and then placed on ice in a cooler for transport to a laboratory. After sample collection, proper sample handling will ensure that changes in the constituents of interest are minimized and will guard against errors when shipping and analyzing samples. Recommended sample sizes, type of containers, sample preservation, and storage requirements for each variable will be followed (see Table 2).

#### *4.3.3 Field Documentation*

It is important throughout a sampling and analysis program to maintain the integrity of the sample from time of collection to the point of data reporting. This integrity should be achieved by using COC procedures that ensure sampling, storing and handling of samples to be traced from collection to the final destination. Proper sampling procedure documentation includes:

- Field data logbook;
- Sample labels;

- COC records;
- Field conducted measurements; and
- Sample shipment method.

#### **4.4 Reporting**

The pre-construction monitoring will assess the baseline conditions and compare them with the State Water Quality Standards. These values will be used to make a preliminary assessment of a water quality violation. Statistical methods will be used to analyze measurements and trends.

During construction, data (date- and time-stamped photographs, monitored data and field observations) will be forwarded to DOH CWB and DLNR OCCL by the close of the business day following the day of sampling if possible. The report will include field notes and site photographs.

A final report will include field notes and site photographs and will be prepared upon completion of the monitoring program. The final report will describe descriptions of construction and nourishment activities, discussion of any deviations from the proposed project design and the cause of these deviations, results from any additional environmental monitoring including sediment analyses, water quality parameters, and discussion of any necessary corrective action(s), and photographs. This report will be submitted to the DLNR within two (2) months of completion of post-construction monitoring.

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## **Attachment A: Field Sample Log Sheet**

## Field Sample Log Sheet

Date: \_\_\_\_\_

Collected By: \_\_\_\_\_

Project Title: .....

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| <input type="checkbox"/> Pre | <input type="checkbox"/> During | <input type="checkbox"/> Post | Construction Monitoring |
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Project No./File No.: \_\_\_\_\_

WQC File No.: \_\_\_\_\_

Contractor's Work in Progress: \_\_\_\_\_

Rainfall Present: \_\_\_\_\_ Past 24 Hrs: \_\_\_\_\_ % Clouds: \_\_\_\_\_ Wind mph: \_\_\_\_\_

In Situ Meter Calibration Date Last

Standard

Reading

Reading

pH \_\_\_\_/\_\_\_\_/20\_\_\_\_

Field Calibrated? → pH=7

pH=10

Turbidity \_\_\_\_/\_\_\_\_/20\_\_\_\_

NTU=0

NTU=100

| Sample No. | Time | Location | Type | Size | Description |
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Samples Held In: ☐ Ice ☐ Refrigerator ☐ Air ☐ Other: \_\_\_\_\_

Samples to Laboratory (name): \_\_\_\_\_

On (date/time) \_\_\_\_/\_\_\_\_/20\_\_\_\_ at \_\_\_\_:\_\_\_\_ ☐ AM ☐ PM Lab Chain of Custody No.: \_\_\_\_\_

Notes: \_\_\_\_\_

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## **Attachment B: Sample Chain of Custody**

# CHAIN OF CUSTODY

Please Print Legibly.

| Client: _____ Acct. #: _____<br>Project Name / #: _____ Phone #: _____<br>Contact Person: _____ Email: _____<br>Sampler: _____ Quote #: _____                                                                                                                      |                |                |       |       | Matrix           |       |      |       | Total # of Containers | Remarks            |      |      |
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*Appendix H:*

*Ka Pa‘akai Cultural Analysis*



# Ka Pa‘akai o ka `Āina Analysis

Niulani Road ~ Beach Restoration Project  
Waipouli Ahupua‘a, Kaua‘i  
May 2025

Prepared for:

Michael Cain, Administrator  
Office of Conservation and Coastal Lands  
Dept. of Land & Natural Resources  
151 Punchbowl Street Room 131  
Honolulu, HI 96813

By: Aukahi Cultural Consulting

## Acknowledgments

This report could not have been completed without the generous support and collaboration of my colleagues at Cultural Surveys Hawai‘i and Explorations Associates Ltd.

I am especially grateful to the kūpuna who took the time to be interviewed and so graciously shared their mana‘o, wisdom, and experiences. Their insights were invaluable.

A heartfelt mahalo to all who shared their expertise and resources, as well as to my ‘ohana for their thoughtful input, facilitation of interviews, research assistance, and unwavering support throughout this project. Your contributions—marked by professionalism, dedication, and a true spirit of collaboration—were instrumental to the success of this work, and I am deeply appreciative.

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## Introduction

### **Description of the Proposed Project:**

#### Niulani Beach Restoration Project and Sea Groin Installation

The proposed project is a small-scale beach nourishment project designed to address ongoing coastal erosion that threatens beach integrity and offsets the impact of the adjacent seawalls.

**Location:** Kawaihau District (Puna Moku), Waiohuli Ahupua`a, Kaua`i Tax Map Keys: (4) 4-3-009:002, (4) 4-3-009:003 (4) 4-3-009:028, (4) 4-3-009-027 and (4) 4-3-009:026; 968, 960, 950, 946 and 938 Niulani Road

### **Proposed Activities:**

The conceptual beach restoration plan proposes placing up to 10,000 cubic yards of beach quality sand, constructing three boulder groins and restoring dunes with native vegetation. Currently there is approximately 390 feet (ft) of unarmored shoreline situated between two adjacent seawalls. Three short boulder groins would be constructed of un-grouted boulder stones and be installed to stabilize the newly nourished beach and offset erosional impacts caused by the adjacent seawalls. Dunes would be restored with native vegetation. Follow up nourishment would be required.

## Project Area Map (outlined in red)



Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

## Scope of Work

In Ka Pa‘akai O Ka ‘Āina v. Land Use Commission (2000), the Hawai‘i Supreme Court established a framework for government agencies to follow when evaluating proposed land and water uses that may affect the exercise of traditional and customary Native Hawaiian rights. This framework seeks to balance the protection of those rights with the reasonable accommodation of competing private development interests.

State law reinforces this by affirming that Article XII, Section 7 of the Hawai‘i State Constitution imposes an affirmative duty on the State and its agencies to preserve and protect Native Hawaiian traditional and customary rights. Today, there is growing emphasis on this obligation—specifically, on identifying and safeguarding these rights and assessing the potential cultural impacts of proposed developments, wherever feasible.

This report is prepared for the Office of Conservation and Coastal Lands (OCCL) and follows the burial laws and rules in accordance with Hawai‘i Revised Statutes (HRS) Chapter 6E and Hawai‘i Administrative Rules 13-300.

## Methodology

Conducting a Ka Pa‘akai analysis requires both scholarly precision and deep cultural sensitivity. Grounded in Native Hawaiian values, the process uplifts the voices and knowledge of kūpuna (elders), cultural practitioners, and lineal and cultural descendants

acknowledging their profound and enduring relationship to the ‘āina (land), their traditions, and ancestral wisdom.

As a Native Hawaiian attorney and academic professional, this work is more than just legal or scholarly—it is deeply personal, spiritual, and relational. It is approached with unwavering ethical commitment: ensuring informed consent, upholding confidentiality, and giving proper credit to those who share their cultural knowledge.

I undertake this responsibility with deep gratitude—for the privilege of hearing the stories and insights of others, for the trust placed in me to carry their ‘ike (knowledge), and for the chance to help safeguard cultural practices and ancestral connections to place for future generations.

## Purpose

The purpose of this analysis is to:

- 1) Identify the scope of valued cultural, historical, or natural resources in the area, including the extent to which traditional customary native Hawaiian rights are exercised in the area; and
- 2) The extent to which those resources – including traditional and customary Native Hawaiian rights are exercised and will be affected or impacted by the proposed action such as access and gathering of limu, opihi, kupe’e, etc. and
- 3) The feasible action, if any to be taken by the agency to reasonably protect such practices if they are found to exist.

## **Identification of Cultural, Historical, and Natural Resources**

Traditional Hawaiian cultural practices are deeply rooted in the reciprocal relationship between kanaka maoli (Native Hawaiians) and the natural environment. These practices, essential for survival, were shaped by generations of careful observation, lived experience, and intimate knowledge of place. Through mālama ‘āina—the ethic of caring for the land—Hawaiian communities developed sustainable systems that ensured the responsible use and management of natural resources.

Many of these practices have been passed down through generations and are still actively maintained in communities across Hawai‘i today. This report seeks to identify and evaluate the cultural practices and resources specific to the Waipouli ahupua‘a, offering insight into the traditional knowledge systems, cultural landscapes, and natural features that define the area. This section will highlight key traditional practices and significant cultural resources associated with the Waipouli region.

Note: Excerpts from cultural informants are incorporated in sections where applicable.

### **Environmental Setting**

Waipouli ahupua‘a is located on the eastern side of Kaua‘i in the historic district (moku) of Puna. Waipouli lies between the ahupua‘a of Kapa‘a to the north and Olohena to the south. This

area covers about 2,966 acres and includes parts of the two major volcanic formations that helped create most of Kaua‘i’s land.

Alluvium, colluvium, and terrigenous sediments—produced by the erosion of the Waimea Canyon Volcanic Series and the Koloa Volcanic Series, the primary geological events that formed Kaua‘i—are the main contributors to the island’s non-mountainous landscapes. These sediments played a key role in shaping areas such as Kapa‘a, Waipouli, and Olohena (MacDonald and Abbott 1970:382–384).

Waipouli lies within the Līhu‘e Plain, a defined physiographic region (Armstrong 1973:30). During periods of higher sea levels, streams deposited terrigenous sediments farther inland due to the encroachment of the shoreline. At the same time, coral reefs expanded with the rising seas. As sea levels later receded, wave action eroded these reefs, depositing marine sediments along the shore.

According to Foote et al. (1972: Sheet 29), the soil in the project area consists primarily of Mokuleia fine sandy loam, part of the Mokuleia soil series. These are well-drained soils typical of Kaua‘i’s coastal plains, formed from recent alluvium deposited over coral sand. They are commonly found alongside Hanalei, Jaucus, and Keaau soils. Generally shallow and nearly level, these soils occur at elevations from sea level up to about 100 feet above mean sea level.

The current road corridor in Waipouli lies on a sandy coastal plain, about 1,800 to 2,600 feet from the shoreline. The natural ground here is mostly made up of coralline beach sand, although modern

construction has added inland clay soils and other materials to reshape the land surface. Local testimony is that the beach sand actually extends much farther inland (mauka) than it appears today.

## **Cultural Background**

Historical documents, maps, and photographs were researched from the Hawai‘i State Archives; the Survey Office of the Department of Accounting and General Services; the Hawai‘i State Library; the Bernice Pauahi Bishop Museum archives and library; Hamilton Library at the University of Hawai‘i Mānoa; the Mission Houses Museum Library; the State Historic Preservation Division (SHPD) library; and the library of Cultural Surveys Hawai‘i in Kailua.

Waipouli possesses a rich cultural history deeply rooted in traditional Hawaiian land management, agriculture, and oral narratives.

## **Place Names**

Place names are profoundly important in Hawaiian history and culture as they contain ancestral knowledge, genealogy, environmental observation, and spiritual connection to the land and sea.

Place names and wahi pana (“legendary place”) (Pukui and Elbert 1968:376) are an integral part of Hawaiian culture. “In Hawaiian culture, if a particular spot is given a name, it is because an event occurred there which has meaning for the people of that time” (McGuire 2000:17). The wahi pana names were then passed on

through language and the oral tradition, thus preserving the unique significance of the place. Hawaiians named all sorts of objects and places, points of interest that may have gone unnoticed by persons of other cultural backgrounds.

**Name and Meaning:** The name **Waipouli** translates to "dark water" or "water darkened by an eclipse," reflecting the area's abundant freshwater sources and possibly its spiritual significance. It is possible that an eclipse of the sun was observed here and gave its name to the stream.

This interpretation is supported by the Kauaʻi Nui Kuapapa project, which documents place names and their meanings across the island.

The following list of place names of Waipouli were compiled from traditional literature (moʻolelo, chants), historical sources, maps and Māhele records. Almost all of the ʻili names were taken from the Māhele Land Commission Awards.

**Place Names listed in Royal Patent #7373, to William C. Lunalilo, for Waipouli Ahupuaa, Puna district, Kauai**

Hinaimakamakani: ridge at Waipouli/Kapa`a boundary

Kahilimalanai: place where the boundaries of Kapa`a, Waipouli and Olohena meet

Kainamanu: small hill at Waipouli/Kapa`a boundary

Kalaiawikiwiki: dry land field at Olohena/Waipouli boundary

Kalouulu: hau clump at Waipouli/Kapa`a boundary

Kaluapalepo: hole in rocks at seashore at Waipouli/Kapa`a boundary

Kapapa: stream at Olohena/Waipouli boundary

Kapukaili: site of old house at Waipouli/Kapa`a boundary  
Kapunakaalu/Kaopunakaalu: hill of stones at Olohena/Waipouli boundary  
Kaukahoku: place at Waipouli/Kapa`a boundary  
Kaunawawaa/Kaumanawaa: canoe harbor at Olohena/Waipouli boundary  
Kawaiolana/Kawaiholana: stream at Waipouli/Kapa`a boundary  
Keahu/Heahu: marsh land at Waipouli/Kapa`a boundary  
Kolokolo/Kololoku: ‘auwai at Waipouli/Kapa`a boundary  
Kopaea: place at Olohena/Waipouli boundary  
Kulelepali: stream at Olohena/Waipouli boundary  
Kulumoa/Hulumoa: ridge at Waipouli/Kapa`a boundary  
Kumunui: hole in reef at Olohena/Waipouli boundary  
Laaawahea: place at Olohena/Waipouli boundary  
Makahaokupanihi: waterpool at Waipouli/Kapa`a boundary  
Makana/Makaua: stone at Olohena/Waipouli boundary  
Panene: site of old houses at Waipouli/Kapa`a boundary  
Paopai/Puu Opae: ridge at Olohena/Waipouli boundary  
Pohakuao: place at edge of reef at Olohena/Waipouli boundary  
Pohakuhinana: stones at Waipouli/Kapa`a boundary  
Pohohoiki/Pohopohoiki: stone at Waipouli/Kapa`a boundary  
Puakei/Puakii: place at Waipouli/Kapa`a boundary  
Puopai/Puu Opae: ridge at Olohena/Waipouli boundary  
Ulalena: large hole at Olohena/Kapa`a boundary  
Waialeale: taro patches at Olohena/Waipouli boundary

1. **Historical Memory:** Place names often commemorate significant events, people, or stories (mo`olelo). They serve as markers of history embedded in the landscape.

2. **Genealogical Connection:** Many Hawaiians trace their lineage to specific places. The land is seen as an ancestor, and knowing the name and story of a place helps maintain familial and cultural identity.
3. **Environmental Knowledge:** Hawaiian place names frequently describe physical features, resources, or natural phenomena—like currents, winds, or rainfall—offering insight into sustainable land and ocean management.
4. **Spiritual Significance:** Places may carry mana (spiritual power) and may be connected to our ancestors, rituals, and sacred practices. Names help recognize and maintain the sanctity and memory of these spaces.
5. **Language and Identity:** Preserving and perpetuating Hawaiian place names supports the vitality of the Hawaiian language which in turn strengthens cultural identity and pride.

## Summary of Traditional Settlement Patterns in Waipouli Ahupua‘a

Waipouli was traditionally known for its excellent surf and it was a popular coastal area. Historical records from the Land Commission Awards (LCAs) show that people lived not only along the shoreline but also inland. House lots were established near the beach as well as farther inland, especially around areas where taro (lo‘i) and dryland crops (kula) were cultivated.

While most land claims were for taro patches and farming land, one notable claim (LCA 8836) included a fishpond and wauke (paper mulberry, used for making kapa cloth). This area, known as Kapakio, was the site of the konohiki's (land manager's) fishpond.

Homes and farming plots were scattered around this pond, with taro likely planted along the wetter edges and the surrounding flatlands used for pasture or open fields.

King Lunalilo received Waipouli ahupua`a in the Māhele. Later, the Land Commission awarded Waipouli to Lunalilo without survey. In 1872, Charles R. Bishop and Kanaina, Lunalilo's guardians, petitioned the Boundary Commission to survey and set the boundaries for Waipouli.

Clues to the nature of the entire ahupua'a come to light in the records of the 1872-73 Boundary Commission proceedings concerning Waipouli. The guardians of William C. Lunalilo had petitioned that the "boundaries of the Ahupua'a of Waipouli situated in the district of Puna Island of Kaua'i may be defined and settled." Four witnesses, all Hawaiians apparently familiar with the ahupua'a, gave evidence from which Duncan McBryde, the Commissioner of Boundaries, made his decision on November 7, 1872. A subsequent survey by James Gay was undertaken in June 1873. McBryde's decision and Gay's survey notes - both included in the Boundary Commission record - contain an abundance, similar to that of the Foreign Testimony entries for Waipouli LCAs, of place names.

In 1879, Royal Patent #7373 was issued with the survey.

Place names are listed in the survey. Unfortunately, the survey map was not transferred as part of the record to the Archives, so I am not sure where these places are located.

We do know the survey started at the seashore at Waipouli's boundary with Kapaa, goes inland to the mountains, then returns seaward along Waipouli's boundary with Olohena, back to the seashore.



Some of these place names are especially worth noting.

There are four names located at the seashore:

Kaluapalepo: hole in rocks at seashore at Waipouli/Kapa`a boundary

Kaunawawaa/Kaumanawa`a: canoe harbor at Olohena/Waipouli boundary

Kumunui: hole in reef at Olohena/Waipouli boundary

Pohakuao: place at edge of reef at Olohena/Waipouli boundary

Along the mauka half of the northern boundary are the "site of old houses Panene" and "old houses Kapukaili." The presence of a pig pen and two old house sites suggests there were populated areas, of which these were only three, within the mauka reaches of Waipouli before the nineteenth century. Areas at similar elevations in neighboring ahupua'a are known to have been foci of agricultural endeavors. In Wailua, south of Waipouli, Folk and Ida (1981) and Hammatt (1988) recorded, in the south fork of the upper Wailua River, irrigated agricultural plots on flood plains between small tributaries and on alluvial terraces within the river gorge. Bennett's (1931) site 110, located in upper Kapa'a, is described: "In the foothills of the mountains there are many little valleys which contain taro terraces. Single rows of stone mark the divisions with some 2-foot terraces." It is not inconceivable that the mauka region of Waipouli was similarly utilized, especially as it is characterized, like Kapa'a, by many little valleys. The house sites and pig pen would have been associated with such upland agriculture. The place names, most of which are missing on modern maps of Waipouli, culled from the Native Testimony and the Boundary Commission records, and those on some nineteenth century maps, are among the last non-physical clues to the extensive native Hawaiian activities that occurred throughout the ahupua'a. When looked at collectively, they create a poignant image of what must have been a close relationship with, use of,

and feeling for the ahupua'a by the inhabitants. In the last quarter of the nineteenth century, the upper reaches of Waipouli were planted in sugar cane by the Makee Sugar Company of Kealia. Sometime after 1886 but before the turn of the century, the marshy former taro lands in the makai portion of the ahupua'a were planted in rice and the rice fields extended into Kapa'a where a rice mill was located.

Unlike some neighboring ahupua'a, settlement in Waipouli stretched from the coast all the way inland. Even the most remote land claim (LCA 8838) included a house alongside taro and farming plots. Records from the Boundary Commission describe old homesites far mauka (upland), along with areas where koa and kukui trees grew and where wild birds were hunted.

Archaeological studies along the coastal terrace have confirmed long-term use of the area. Cultural layers have been found at the sites of the Coconut Plantation Resort and Uhelekawawa (also known as Uhalekawa'a), with evidence of habitation dating back to the 15th and 16th centuries.

The strongest expression of archaeological sites (cultural layers and human burials) at Waipouli is immediately on the coast such as designated sites 1801 and 1836. Site 1836 extends as far inland as Kūhiō Highway and four burials (Site 872) have been recovered from under Kūhiō Highway. It can reasonably be assumed that other subsurface deposits and burials extend mauka of Kūhiō Highway particularly in the eastern portion of Waipouli.

## Mo‘olelo

The mo‘olelo (story, legend, tradition) of **Kuapaka‘a**, a renowned wind expert, mentions several winds in the Kapa‘a and Waipouli areas, highlighting the cultural importance of natural elements in Hawaiian storytelling and place identity.

In the mo‘olelo of **Kuapaka‘a**, a renowned wind expert, Waipouli is mentioned in relation to specific winds:

- **Kehau:** A gentle wind associated with Kapa‘a.
- **Ho‘olua:** A wind linked to Makaiwa.
- **Inuwai:** A wind specific to Waipouli.

These named winds underscore the cultural importance of natural elements in Hawaiian storytelling and place identity.

---

### Kawelo's Conquest of Kaua‘i

The mo‘olelo of **Kawelo**, a chief from O‘ahu, narrates his journey to Kaua‘i to reclaim his rightful position. His adventures include battles and interactions with various regions, including Waipouli. This story emphasizes themes of bravery, leadership, and the significance of familial ties. In the account shared by Green and Pukui, Kawelo’s brother, Kamalama, distributes land within the plain between Waipouli and Wailua—a region Kamalama had chosen as a favorable site for settlement.

---

### The Tale of Ka`ililauokekoa

In the legend of **Ka`ililauokekoa**, Waipouli serves as a backdrop for parts of the narrative. This mo‘olelo delves into themes of

love, transformation, and the interplay between humans and the divine.

**Nā keiki o Waipouli me Honoma`ele.** Children of Waipouli and Honoma`ele. A humorous reference to very dark people. A play on pouli (dark) and `ele (black). (Pukui 2237)

## Archaeology of Waipouli

Interestingly neither Thomas Thrum (1907) nor Wendell Bennett (1931) mention Waipouli in their works on heiau and the sites of Kaua'i. Waipouli appears to first be the subject of archaeological inventory survey in 1991 when Folk et al. (Hammatt 1991) located a rich cultural layer on the makai side of Kuhio Highway and on the north side of Waipouli Stream (Site 1836). This site was originally a dry island surrounded by low marsh lands on three sides (Ida and Hammatt). "At the shore, details known about the Golding property from this century were provided by Mr. Ed B. Crabbe, President of Niupia Farms, Ltd. Mr. Crabbe's grandfather bought the shoreward lands of Waipouli sometime in the first quarter of the century. A coconut grove was planted at the present site of the present Coconut Plantation to produce copra and animal feed. Mr. Crabbe's father moved his family from Maui to Kaua'i sometime in the 1940s. They occupied the former Golding house with Mr. Crabbe living in the former office. Mr. Crabbe recalled that there was indeed a surf break off Waipouli called Makaiwa. Another coastal feature of Waipouli was a "double reef" formation that somehow dissipated the force of such inundations as the 1946 tidal wave that swept over the Hawaiian Islands. Mr. Crabbe recalls that his shoreline property was used only for horse pasturage and rodeo practice. The north

side of the property, formerly the bank of the northernmost watercourse exiting from the marsh lands, was filled in when the Waipouli Drainage Canal was constructed”. A portion of this canal mauka of the Kuhio Highway runs parallel to the shore; a branch exiting to the sea follows the natural drainage of the former Waipouli (or Konohiki) Stream. The canal was built in 1960 for flood control, a Department of Accounting and General Services project (information provided by Mr. Tom Kam of the Department of Land and Natural Resources). Mr. Crabbe's locating of the Makaiwa surf break off Waipouli brings this account full circle to its beginning in the legend of Ka`ililaukekoa whose "greatest desire was to ride the curving surf at Makaiwa." Legend told of the surf break, nineteenth century documentation mentioned a location suitable for a "canoe harbour", and a present-day informant has told of a "double reef" capable of diminishing the force of tidal waves and seasonal high surf. These features would have heightened the appeal of the makai portion of Waipouli for settlement by the Hawaiians. That this area may have been, in fact, well-populated in former times has been suggested by the profusion of villages, lo'i, and water course features named in nineteenth century documents. These documents further suggest that a significant population was dispersed throughout the ahupua'a.

## **Marine Resources at the Kahakai (Seashore)**

The ocean has long been a vital source of sustenance and cultural practice for the Waipouli community, home to many skilled traditional fishermen. Fish of various kinds have historically been a key component of the Hawaiian diet, offering an essential source of protein. In addition to fishing, the gathering of limu

(seaweed) has remained an important cultural activity—both historically and in the present day—valued by practitioners for its role in diet, medicine, and as a resource connected to fishing traditions.

The extensive reef along the Waipouli coastline continues to support the gathering of i‘a (fish), limu, and he‘e (octopus). Traditional and contemporary practices in the area include spear fishing, torch fishing, throw netting, pole fishing, diving, use of lay nets, and shoreline gathering. These methods reflect a deep connection to place, and intimate knowledge of the ocean passed down through generations.

It is essential that access to the entire coastal area remains open and unrestricted for cultural practitioners and subsistence gatherers who rely on the ocean's resources. Every individual interviewed for this assessment identified active gathering practices occurring mā kai of the project area.

## **Overview of Shoreline Change and Erosion in Hawai‘i**

On the island of Kauai, the east coast is the most affected by erosion. The shoreline here is shaped by bays, reefs, and strong trade winds, and rivers sometimes cause flooding. In the Kapa`a area, natural bays were filled in over time, creating a straighter coastline. Today, erosion is especially severe in areas like Nukoli`i, north of Waipouli, and parts of Kapa`a, where entire beaches have disappeared. All parts of East Kaua`i are losing shoreline, with over 60% of the area showing signs of erosion—the highest rate on the island.

Because coastal property is so valuable, many landowners build seawalls, use sandbags, and other barriers to protect their land. While these structures may shield property, they often worsen beach erosion nearby by blocking the natural flow of sand and reflecting wave energy. This leads to beach loss and pushes erosion onto neighboring areas. The State of Hawai‘i and local communities are well aware of this and working toward better coastal management solutions.

Other efforts, like adding sand to beaches (known as beach nourishment), can temporarily make the shoreline appear stable or even growing. However, this is not a natural or lasting solution. Frequent nourishment can give a false impression that the beach is healthy, when it would be eroding without human intervention.

Beach erosion is a long-term issue in Hawaii as well as along much of the U.S. coastline. As more people move to coastal areas and build homes and businesses, understanding how shorelines change over time has become more important. The U.S. Geological Survey is studying these changes to track erosion consistently across the country and help communities respond.

### **Coastal Features Nearby**

- **Waipouli Beach:** This tranquil stretch of coastline offers picturesque sunrises and is a favored resting spot for Hawaiian monk seals. While the beach is scenic, swimming conditions can be challenging due to rocky bottoms and strong currents, making it more suitable for beachcombing and relaxation.



- **Waipouli Beach Park (Fuji Beach or Baby Beach):** Located just north of Waipouli Beach, this family-friendly spot features a natural breakwater that creates calm, shallow tide pools, ideal for young children. The park is equipped with amenities like restrooms, parking, and picnic areas.
- **Freshwater Resources:** Historically, Waipouli was known for its abundant freshwater sources, including natural springs and streams, which supported traditional agriculture, particularly lo‘i kalo (taro terraces).

## Description of Traditional and Customary Practices

The identification of traditional and customary Native Hawaiian practices within the project area is a critical component of this report. This section draws upon oral histories, community consultations, archival research, and ethnographic sources to determine whether cultural practices tied to specific places, resources, or seasonal patterns continue to be exercised.

Particular attention is given to practices protected under Article XII, Section 7 of the Hawai‘i State Constitution, which safeguards the rights of Native Hawaiians to engage in traditional customs and subsistence activities. Informed by interviews with long-term residents and cultural practitioners familiar with the ahupua‘a, this assessment seeks to understand the historical and ongoing relationship between kānaka maoli and ‘āina in the project area,

and to identify any potential impacts that may arise from future land use.

### **A. Gathering Practices**

Nearshore fishing and diving for heʻe is a favorite pastime. Many fishers still use throw nets and pole fishing for various species however not specifically in the project area.

Limu gathering - Harvesting of edible seaweed (limu kohu, limu manaua) during certain tides but not in the project area.

Native plant gathering - Still conducted but not in the project area.

Consultation with Native Hawaiian culturalists in the neighborhood confirmed that marine resources remain deeply intertwined with both subsistence and cultural identity. For many families, nearshore fishing grounds are not only a primary source of food, but also vital spaces for the transmission of ancestral knowledge, practices of kilo (environmental observation), and the perpetuation of values such as mālama i ka ‘āina (care for the land and sea). There are traditional methods that have been passed down through generations, and specific locations—such as beyond the first “breakers” or reef are associated with customary gathering practices and seasonal cycles.

### **B. Religious or Ceremonial Use**

Religious or ceremonial practices are recognized as protected traditional and customary rights under state and federal law. During community consultations, cultural informants stated that while there are no known historic sites or fixed ceremonial

features within the immediate project area, the ocean itself is regarded as a sacred space. They emphasized that the practice of Native Hawaiian religion does not always require a physical structure or marked site; rather, the ocean is a living spiritual entity and an integral part of their belief system.

Participants described their families still engage in spiritual practices such as pule (prayer), hi`uwai (ritual cleansing) and offerings to ancestral and others in various locations along the coast. These ceremonies are closely tied to cultural identity, environmental stewardship, and the intergenerational transmission of values. As such, even in the absence of documented historic sites, the ocean adjacent to the project area holds cultural and religious significance and should be treated with care and respect in planning and decision-making.

### **C. Access and Stewardship Practices**

Based on community input and site observations, the project area is not commonly used for traditional fishing or gathering because it is not easily accessible. Physical access to the shoreline is significantly limited by two existing sea walls located at either end of the area, which effectively restrict entry from adjacent public spaces. As a result, the area has not been a regular site for cultural practices. In addition, community members noted that more accessible and culturally valued shoreline areas exist on the north side of the district, where beaches are broader, safer, and more suitable for traditional use.

#### **D. Burials – Nā Iwi Kūpuna**

The practice of burying, caring for, and protecting **iwi kūpuna** (ancestral bones) is a deeply sacred and culturally significant responsibility in Hawaiian tradition. Iwi kūpuna are not just bones; they are the physical remains of our ancestors and are considered sacred. They carry **mana** (spiritual power) and represent the ongoing presence of our kūpuna among us.

The protection of iwi kūpuna is a kuleana—a sacred obligation that binds us to our heritage, our ‘āina, and future generations. Disturbing burial sites or mishandling iwi is an offense to both our ancestors and our values.

On December 9, 2021, unidentified human skeletal remains were inadvertently discovered in the project area (950 Niulani Road) during ground disturbing work. Several human bone fragments were exposed during installation of a temporary sandbag reining wall by Silliman Construction Inc. A letter of determination was issued by the State Historic Preservation Division on January 4, 2022 to relocate (burial sites three and four and to preserve in place (burial sites one, two, five, six and seven).

The legal framework for iwi protection in Hawaii consists of the state constitution, the historic preservation chapter or Chapter 6-E of the Hawaii Revised Statutes; section 13-300 of the Hawaii Administrative Rules and other rules implementing Chapter 6E and court decisions that interpret and enforce those provisions.

To ensure that kanaka maoli are given the opportunity to be involved in decision making to properly care for iwi kupuna, the state legislature granted explicit roles for lineal and cultural

descendants, who may make recommendations for the disposition of iwi kupuna.

There is a presumption in the law to preserve burials in place whenever possible. When iwi kūpuna are returned, reinterred, or properly cared for, it is a form of setting things right. It brings spiritual balance, healing, and restores respect and dignity to the ancestors.

### **Burial Treatment Plan**

The discoveries of nā iwi kūpuna in the project area prompts careful consideration during the development phase and construction project.

A Burial Treatment Plan (BTP) should be developed in consultation with the State Historic Preservation Division (SHPD), the Island Burial Council, and recognized Native Hawaiian descendants affiliated with the area. This plan should outline protocols for the identification, documentation, consultation, and appropriate treatment of the human remains that were encountered during construction in 2021.

The implementation of these measures aligns with the intent of Hawai‘i Revised Statutes (HRS) Chapter 6E and demonstrates respect for the cultural and spiritual significance of iwi kūpuna.

### **Coordination with Lineal and Cultural descendants**

Recognized lineal descendant Milton Ching has come forward to provide guidance and assume cultural responsibility for the care of iwi kūpuna associated with the project area. He is recognized

by the Kaua‘i Ni‘ihau Island Burial Council and the State Historic Preservation Division.

The involvement of descendants is critical to ensuring that all burial-related decisions reflect traditional Hawaiian cultural values, familial responsibilities, and proper protocol. This consultation should be integrated into both the development of the Burial Treatment Plan (i.e. Burial Site Component of a Preservation Plan and an Archaeological Data Recovery Plan per HAR-13-300-40) and any monitoring or reinterment efforts that may follow. Such coordination will help maintain cultural integrity and foster respectful stewardship of the site.

Decisions regarding the treatment, preservation, or relocation of human burials should be made in consultation with lineal and cultural descendants, culturally affiliated communities, and other relevant stakeholders. Such consultation is essential to ensure that the treatment of human remains is guided by respect, cultural sensitivity, and ethical responsibility. This process should prioritize the values, beliefs, and wishes of descendant communities and comply with applicable local, state and customary laws, including the protection of cultural heritage and Indigenous rights.

### **Cultural Sensitivity and Preservation**

The Burial Council district representative was present during the site visit in 2021 when the burials were discovered. In a recent interview for this report, she expressed serious concern that removal of the sandbags will result in the exposure of nā iwi

kūpuna that were left in place. She emphasized that opening the area could allow seawater intrusion due to wave action, leading to sand displacement, further endangering the burials. To safeguard the integrity and sanctity of the site, the area should remain covered and protected to prevent erosion or disturbance until an appropriate, culturally sensitive solution is approved and implemented.

If the burials are to be relocated even temporarily, environmental shelters should be erected or shade structures to avoid exposure to sun, wind, and rain.

### Ethical and Legal Considerations

- Always consult with lineal/cultural descendants since Native Hawaiian remains are involved.
- Avoid disturbance unless absolutely necessary—in situ preservation is preferred if the burials can be protected.

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## Cultural Community Consultation

Native Hawaiian cultural consultation is critically important for the **Ka Pa‘akai o ka `Āina** analysis because it is the primary method to meet the legal standards. It ensures that decisions about land use respect and integrate Native Hawaiian cultural values, practices, and traditional knowledge.

Consultation helps identify and protect cultural practices. Long-term residents often carry oral histories and localized knowledge passed down through generations. This can include information

about land use, cultural practices, significant events, and changes to the landscape. Understanding the values, priorities, and concerns of those who have deep ties to a place ensures that projects are more responsive to community needs and less likely to cause harm or conflict.

Native Hawaiian cultural practitioners possess generational knowledge about the land (‘āina), including its spiritual, historical, and ecological significance. This knowledge is vital for understanding the full impact of a proposed project.

Many places in Hawai‘i hold deep cultural, religious, or ancestral significance. Without consultation, these sites may be overlooked or mischaracterized, leading to irreversible damage. There were no sacred and historic sites identified in the area.

Genuine consultation builds trust and ensures that community voices are heard, respected, and considered in the planning process. It fosters more equitable, inclusive, and sustainable decision-making.

As part of the analysis, Hawaiian organizations, government agencies, and community members were contacted to: (1) identify potentially knowledgeable individuals with cultural expertise and knowledge of the project area and the surrounding vicinity, and (2) identify cultural concerns and potential impacts within the project area.

## Approach

1. Cultural Sensitivity is the key to successful consultation. It requires that you do your homework of learning about the community's history and customs before reaching out. Respectful and culturally appropriate language must be used and open-ended questions allowed the conversation to flow naturally. Most importantly, you must be humble, after all you are the one that is seeking their knowledge, and their time and stories are valuable.
2. Build Trust and Relationships. Ideally you start with a personal connection. I was very fortunate to get introduced through a mutual contact who was also a respected community member. Explaining my purpose in meeting with them clearly was important as transparency matters and they want to know who I am, who my family is, what I was doing and how their input would be used. Consent was obtained to share their stories although I was prepared to respect their wishes if they declined.
3. Knowledge of the culturalists that shared information is greatly valued and their contributions should be acknowledged if they desire. A mahalo gift is always provided as a respectful (and not transactional) gesture.

## Cultural Informants with ancestral connections or kuleana to the ahupua‘a

| Name                       | Ahupua‘a affiliation | Years Residing in Area | Relationship to area                              | Cultural Practices Shared                                         |
|----------------------------|----------------------|------------------------|---------------------------------------------------|-------------------------------------------------------------------|
| Milton Ching and Family    | Waipouli             | 65 +                   | Lineal Descendants (recognized by KNIBC)          | Burials                                                           |
| Carol Lovell               | Kawaihau district    | 70+                    | KNIBC member representing Waiohuli                | Burials                                                           |
| Ian Costa                  | Waipouli             | 60+                    | Generations of family lived in Waipouli           | Ocean related                                                     |
| Kaina Ludington            | Waipouli             | 84                     | Generations of family lived in Waipouli           | Ocean related, seasonal knowledge                                 |
| Mei Lin Poai Kanakaole     | Kapa‘a               | 50+                    | Generations of family lived in Kapaa and vicinity | Ocean worship, prayer at ocean, limu gathering, family ceremonies |
| Nancy McMahon              | Kaua‘i island        |                        | Kaua‘i archaeologist                              | General                                                           |
| Lemana Damate              | Statewide            |                        | Aha Moku, E.D                                     | General                                                           |
| Rocky Kaluhiwa             | O‘ahu                |                        | Aha Moku Representative                           | General                                                           |
| Office of Hawaiian Affairs | Statewide            |                        | Native Hawaiian advocacy                          | General                                                           |

## Identification of Cultural Informants

Invitations to consult were sent to the cultural informants and native Hawaiian organizations above. Interviews were conducted with kupuna individuals and families with cultural or historical knowledge and to the extent possible, a genealogical relationship to the area. Cultural informants were contacted to: (1) identify potential knowledgeable individuals with cultural expertise and knowledge of the project area and surrounding vicinity, and (2) identify cultural concerns and potential impacts relative to the project. An effort was made to locate informants who either grew up in the project area or who, in the past, used the area for cultural purposes.

Letters were sent to the Office of Hawaiian Affairs, and Kaua`i Ni`ihau Island Burial Council Rep. Carol Lovell who I interviewed for this report. A telephone interview was held with Aha Moku E.D Leimana Damate and Aha Moku Rep. Rocky Kaluhiwa. Kanaka maoli long time residents such as Kaina Ludington and Ian Costa were interviewed and letters were sent to residents Ken Nakazawa and Grace Tokioka. Emails and phone calls were exchanged with Nancy McMahon, long-time Kaua`i archaeologist, owner EA Associates, and lineal/cultural descendant and former DOCARE officer Milton Ching.

Once participants were identified, she/he was contacted and interviewed. The analytical framework relies on kama`aina

testimony to establish the existence of traditional and customary rights and the exercise of such rights in the project area.

Excerpts from the interview are used throughout this report, wherever applicable.

## **Results of Community Consultation**

Community consultation research conducted yielded the following results:

1. According to Mr. Costa whose family has lived here for many generations, the neighborhood has changed greatly over the years. The experiences he shared offered a nuanced understanding of the area’s ecological, cultural, and social changes over time, insights that are critical for accurate assessments and responsible planning. He mentioned that the homes adjacent to and mauka of the Project area are now occupied mostly by non-Hawaiian immigrants and most are vacation rental properties.

2. All participants agreed that the reef adjacent to the Project area has changed with less fish and seaweed over time. Fish like kūmū (white saddle goatfish), ‘āweoweo (bigeye), kala (unicorn fish), manini (convict tang), uhu (parrotfish), weke ula (red goatfish), menpachi, and tako (squid or octopus) were reported by all participants to have been once abundant. Limu kohu (seaweed) and limu kala (seaweed that kala fish feed on) were also reported by Mr. Kaina Ludington to have been abundant.

3. All participants attributed the depletion of ocean resources near the Project area to the following factors: predators like the Hawaiian monk seal, sharks, and turtles; windsurfing activities; and the introduction of invasive species like ta‘ape (blue stripe snapper) and roi (peacock grouper) claimed that the fish and seaweed have become less abundant because of the Hawaiian monk seal, sharks, and turtles.
4. One of the primary concerns that all participants shared confirmed the numerous burials that exist on the beach, in the water and certainly within or near the Project area. They indicated there is a high likelihood of finding iwi in the sand of the Project area and to notify and engage the descendants of the area for guidance.
5. Regarding burials, Kaina Ludington remembers finding iwi and skulls while out diving. When he went home, his grandmother told him to take it back to where it was found and rebury it in the sand.
6. Ian Costa shared concerns regarding protecting against project-related contamination of the nearby marine resource system since the resources are considered culturally valuable to Native Hawaiians.
7. For the Po‘ai, Costa, Ching and Ludington family their roots go back through many generations and their connection to land and sea transcends emotion, ownership or residency. It is a living relationship grounded in ancestral memory, cultural knowledge,

and spiritual responsibility. The shoreline is not merely a boundary, but a familiar relative—known, named, and loved.

## Assessment of Potential Impacts

As part of the Ka Pa‘akai o ka `Āina framework established by the Hawai‘i Supreme Court, this section evaluates the potential physical, cultural, and environmental impacts of the proposed project. The analysis is grounded in the State’s constitutional obligation to preserve and protect Native Hawaiian traditional and customary practices. It considers whether the project may result in significant physical changes to the landscape, disrupt access to cultural sites, or adversely affect the continued exercise of cultural practices in the area. The following questions guide this impact assessment:

1. Will the proposed project result in a significant physical change to the geographical landscape of the area?
2. Will it alter or limit access to sites used for traditional practices such as fishing, gathering, or religious observance?
3. Could the project impact known or potential cultural resources, including burials or wahi pana (storied places)?
4. How might changes to the natural environment affect the continued exercise of cultural rights and responsibilities?

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**Will the proposed project result in a significant physical change to the geographical landscape of the area?**

Yes, but in a managed way. The proposed project will alter the shape and structure of the shoreline by adding sand and installing groins. These changes are designed to improve the beach’s stability and resilience. While the beach will look different from its current eroded state, the changes aim to mimic a more natural shoreline that likely existed in the past, before the construction of nearby sea walls.

While sandbags currently serve as effective protective measures, the removal of the sandbags and the construction of three sea groins may possibly modify coastal processes. Such changes may pose a heightened risk to cultural sites, possibly including subsurface cultural materials due to shifting sands and destabilized terrain. Careful consideration and mitigation may be necessary to safeguard these sensitive resources.

Of course, the entire intent and design of these sea groin structures and the huge amount of new sand which will be brought in for the required beach restoration/replenishment goal is meant to closely mimic and restore natural sediment transport as was previously the case. As we know, the two concrete seawalls (at the north and south ends of the five-lot project) that have been grandfathered in by DLNR, and required removal of all the recently installed sandbags, necessitate the installation of the groins to stem further erosion. Monitoring and mitigation are recommended.

**Will it alter or limit access to sites used for traditional practices such as fishing, gathering, or religious observance?**

Not likely. The project area fronts only five properties and is situated near a larger, more accessible beach area commonly used by cultural practitioners and gatherers. While access to this broader coastal zone remains available, informants expressed concern that construction activities or alterations to shoreline access—whether temporary or permanent—could disrupt customary practices such as the limu beds, fishing, or engaging in quiet reflection at wahi pana (storied or sacred places). Should access be restricted during or after construction, it may impede the exercise of constitutionally protected traditional and customary rights. It is therefore essential to ensure continued, unobstructed access for cultural practitioners throughout the duration of the project and beyond.

**Could the project impact known or potential cultural resources, including burials or wahi pana?**

Yes. The presence of previously identified iwi kūpuna in the project area underscores the likelihood of additional cultural resources being present. Again, ongoing monitoring is recommended. The cultural landscape of Waipouli is a place well known for many native burials according to the long-time families of this area including lineal descendants and cultural practitioners. I understand that except for the removal of the sandbags and installation of the groins, excavation will be quite minimal, as the major focus of the project is beach replenishment and restoration by bringing in a massive amount of sand.

## **How might changes to the natural environment affect the continued exercise of cultural rights and responsibilities?**

Changes such as altered shoreline dynamics, water quality degradation, or vegetation loss could have cascading effects on traditional resource gathering and spiritual practices. For example, disruption to limu beds, fishing grounds, or coastal trails may reduce access to or the health of these resources, thereby impacting intergenerational knowledge transmission and cultural continuity. Maintaining environmental integrity is therefore essential to preserving cultural integrity.

## **Recommended Mitigation Strategies ~ Cultural Informants**

The following mitigation measures and recommendations reflect the mana‘o (perspectives) and concerns expressed by kūpuna, cultural practitioners, recognized descendants and the Burial Council representative as an important component of the Ka Pa‘akai analysis.

They are intended to ensure that cultural practices are respected and protected, iwi kūpuna are treated with the utmost care and dignity, and that any adverse effects of the proposed project are appropriately avoided, minimized, or offset to the extent feasible.

### **Protecting Burials and Cultural Sites**

- Coordinate with the Kaua‘i/Ni‘ihau Island Burial Council, SHPD, and lineal/cultural descendants before any ground disturbance begins.

- Maintain or enhance physical protections (e.g., keep sandbags or install culturally appropriate barriers) around known iwi kūpuna to prevent exposure due to shifting sands or wave action.
- Develop and implement a Burial Treatment Plan for the burials discovered in 2021, in consultation with the Burial Council and Native Hawaiian descendants.
- Maintain sandbag protection over iwi kūpuna to prevent exposure and disturbance from shifting sands and seawater.
- To safeguard the integrity and sanctity of the site, the area should remain covered and protected to prevent erosion or disturbance until an appropriate, culturally sensitive solution is approved and implemented.
- If the burials are to be relocated even temporarily, environmental shelters should be erected or shade structures to avoid exposure to sun, wind, and rain.

## **Preserving Access to Cultural Resources and Practices**

- Ensure that access to shoreline areas for traditional practices (fishing, limu and he‘e gathering, spiritual observances) remains open and unobstructed during and after construction.

### **Ongoing Cultural and Archaeological Monitoring**

- Require qualified archaeological and cultural monitors (preferably Native Hawaiian with ties to the area) to be present during all phases of earth-disturbing activity. Their presence will ensure that any inadvertent discoveries are handled respectfully and in accordance with cultural protocols, and community expectations.
- If previously unknown cultural resources are encountered, establish a clear stop-work protocol and notify appropriate authorities and cultural representatives immediately pursuant to state law.

### **Minimizing Environmental Impacts**

Mitigate all Project-Related Disturbance: Ground disturbing activities associated with the current project consists of careful tree removal, grubbing vegetation from the shoulder of the road along the sea wall and trenching for the concrete rubble masonry (CRM) wall. All these actions must be carefully mitigated.

- Associated with the current project consists of Design project elements to avoid unnecessary disturbance to

natural features like sand dunes, limu beds, or water sources connected to cultural use.

- Use erosion control measures that are compatible with the coastal ecosystem to prevent further environmental degradation
- Ian Costa shared concerns regarding protecting against project-related contamination of the nearby marine resource system. He recommends mitigation measures be in place prior to and during the construction to ensure that contamination does not enter the ocean.

This assessment reflects both community concerns and professional observations and is intended to support informed decision-making and appropriate mitigation strategies.

## **Long-Term Benefits to the Property Owners**

While the proposed project seeks to mitigate the loss of a portion of the property due to shoreline erosion and necessary preservation measures, there are also meaningful long-term benefits for the landowner. Long term benefits include restoration of the beach area and improvement of the natural shoreline processes. By engaging in culturally sensitive planning, complying with legal and regulatory protections for iwi kūpuna and other cultural resources, and implementing appropriate

mitigation strategies, the property owners demonstrate responsible stewardship of the land. Among the Hui members is Mrs. Ota who has been in her home for over 7 decades. Her family and other Hui members are very sensitive to these issues and intend to comply with the letter and spirit of these recommendations.

This approach not only minimizes potential legal and community conflicts but also strengthens relationships with Native Hawaiian stakeholders and the broader community. In the long term, preserving cultural integrity and contributing to sustainable shoreline management can enhance the property's value in terms of legacy, environmental stability, and alignment with broader public trust and conservation goals.

## **What’s at Stake Without Project Mitigation**

The project clearly incorporates cultural and community input with respect, protection, and long-term sustainability

If the project proceeds without necessary modifications or cultural safeguards, there are serious and far-reaching consequences. Culturally, the disturbance or exposure of iwi kūpuna (ancestral remains) represents a profound violation of Native Hawaiian values, disrupting sacred relationships to the ‘āina and inflicting harm on descendant communities. Legally, failure to protect traditional and customary rights, burial sites, and historic resources could result in noncompliance with state laws, potentially halting the project or leading to costly legal challenges. Environmentally, the unmitigated alteration of the

coastline could increase erosion and destabilize both the physical and ecological landscape. Most importantly, proceeding without appropriate consideration to identified cultural concerns would erode public trust, damage relationships with cultural practitioners, and undermine the landowner's standing as a responsible steward of the land. Modifying the project to incorporate cultural and community input is essential to balance development with respect, protection, and long-term sustainability.

## Conclusion

This Ka Paʻakai o ka `Āina impact assessment report reaffirms the cultural significance of the project area and its surrounding landscape to Native Hawaiian descendants and practitioners. While no ceremonial sites or historic structures were identified within the immediate footprint of the project, the adjacent marine environment holds deep spiritual and subsistence value. Long-term residents and lineal descendants emphasized the ongoing importance of traditional practices such as fishing, ocean-based ceremony, and cultural stewardship, which continue to be exercised in the broader ahupuaʻa.

The presence of iwi kūpuna within the project area underscores the need for continued cultural sensitivity and responsible planning. In response, the project team commits to working collaboratively with lineal descendants, cultural practitioners, and appropriate agencies to ensure that traditional and customary practices are respected, protected, and upheld throughout the life of the project.

This report fulfills the requirements of the **Ka Pa‘akai o ka ‘Āina** framework by:

- **Identifying** traditional and customary practices historically and currently exercised in the area;
- **Determining the extent** to which these practices may be affected by the proposed action; and
- **Recommending feasible mitigation** measures that ensure protection of constitutionally protected Native Hawaiian rights.

This commitment is grounded not only in compliance with **Article XII, Section 7** of the Hawai‘i State Constitution and **HRS Chapter 6E**, but in a broader kuleana (responsibility) to respect and honor the relationship between kānaka maoli and ‘āina (land and sea). The project team affirms its ongoing dedication to supporting cultural continuity and safeguarding the integrity of Native Hawaiian practices now and for future generations.

Mitigation efforts should reflect not only regulatory compliance, but also a genuine commitment to cultural sensitivity, community engagement, and long-term stewardship of place.

Mahalo!

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## Ka Paʻakai o ka `Āina

Burial sites located at 950 Niulani Road, Kapaa, Kauai Island, Hawaii.

Burial 1: N 2440013/ E 467179

Burial 2: N 2440010/ E 467178

Burial 3&4: N 2440020/ E 467179

Burial 5: N 2440011/ E 467179

Burial 6: N 2440004/ E 467176

Burial 7: N 2440017/ E 467181



Figure 1. Site map of the project area and the location of the burials.

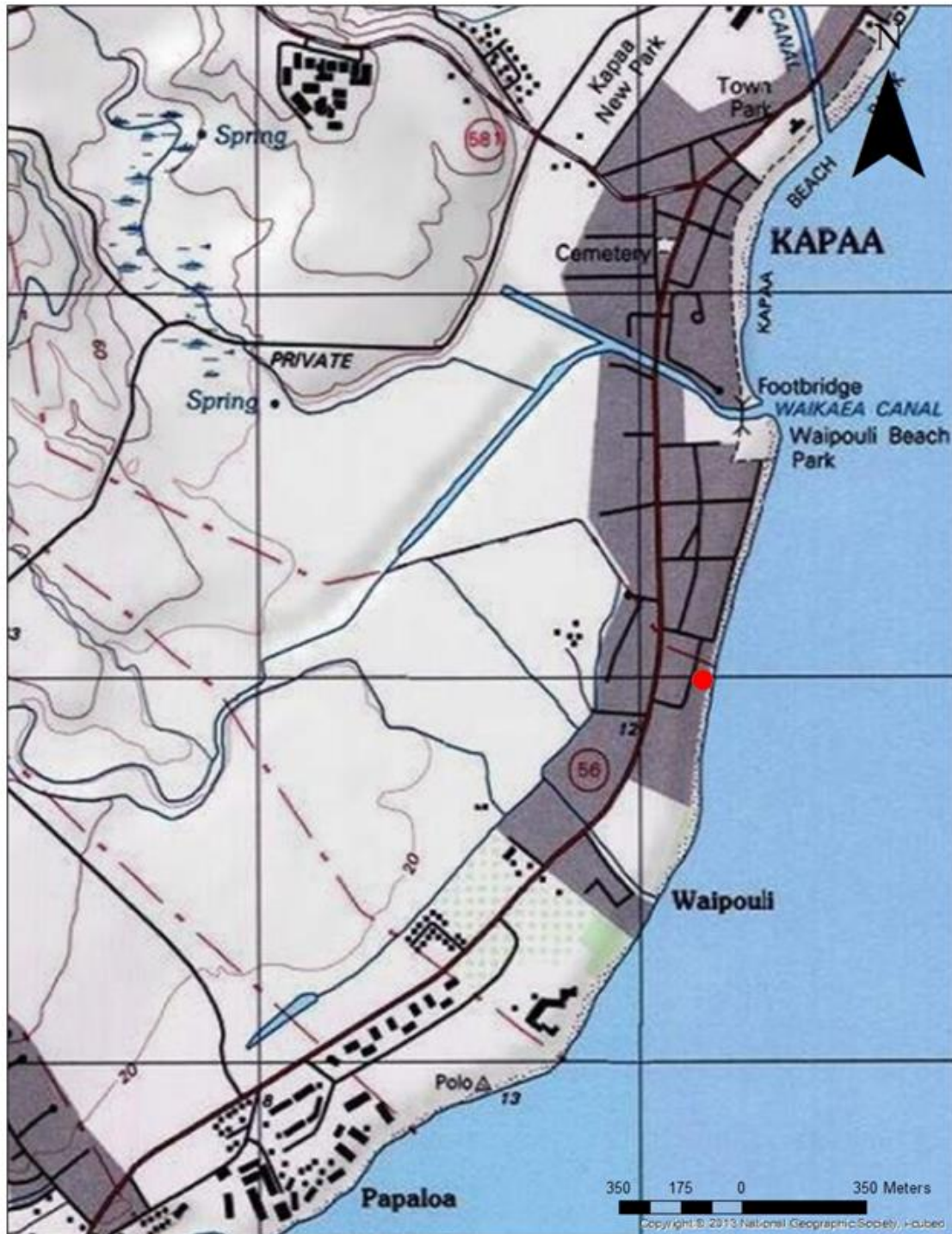


Figure 2: USGS Kapa'a Quad Location of the property



Figure 3: Sand pile by the ramp where Burials 3 and 4 are located



Figure 4: Sandbag wall being constructed and location of the burials are under the black cloth

DAVID Y. IGE  
GOVERNOR OF  
HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
STATE HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING  
601 KAMOKILA BLVD, STE 555  
KAPOLEI, HAWAII 96707

SUZANNE D. CASE  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA  
FIRST DEPUTY

M. KALEO MANUEL  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

January 4, 2022

Don and Cheryl Dale  
29462 Kensington Dr.  
Laguna Niguel, CA 92677

LOG NO: 2022PR01646  
DOC NO: 2201.KH01

Aloha Mr. & Mrs. Dale,

**Subject: Determination of Inadvertent Discovery of Human Skeletal Remains SIHP # 50-30-08-02419 encountered at 950 Niulani Road, Kapaa Ahupua'a, Puna District Kauai Island, TMK: (4) 4-3-009:028.**

**Discovery**

On December 9, 2021, unidentified human skeletal remains were inadvertently discovered at 950 Niulani Road during ground disturbing work. Several human bone fragments were exposed during installation of a temporary sandbag retaining wall by Silliman Construction Inc., Dean Silliman. All work in the area halted upon discovery. Notification was made to State Historic Preservation Division (SHPD) Burial Sites Specialist, Kauanoe Hoomanawanui, David Buckley, Kauai Lead Archaeologists, and Kauai Niihau Island Burial Council (KNIBC) Kawaihau Geographic Representative Carol Lovell. A site visit was conducted and David Buckley of SHPD confirmed the exposed bone remains of a partially insitu burial site. He identified the burial as human and was preserved in place. KNIBC Kawaihau Geographic Representative, Carol Lovell agreed. Following further investigation of the area it was evident coastal erosion had exposed additional scattered human skeletal remains. SHPD instructed an archaeologist be contracted and the surrounding sand be screened along with archaeological monitoring of all further work in the project area.

On December 9, 2021, Exploration Associates LLC, Nancy McMahon was contracted as the archaeological firm to remain compliant during this process. On December 21, McMahon notified SHPD of additional burial sites that were located in an eroded area along the shoreline. The second burial site was identified as insitu and preserved in place. Burial sites three and four were found highly disturbed and located on the shoreline. SHPD recommended retrieval of the fragments and temporary curation on site securely. In further inspection, burial sites five, six and seven were found exposed insitu along the eroded slump area and preserved in place. SHPD suggested interment of burial sites three and four fragments while burial site seven was

exposed.

### **Jurisdiction**

SHPD assumes jurisdiction over the disposition of the burial as the find is human and in existence for more than fifty years.

### **Ethnicity/Age**

Ethnicity of the first burial is presumed Native Hawaiian based on other known Native Hawaiian burials and cultural layer features in the area and the age is of adult. The second burial is probable Native Hawaiian based on the flex position and other known Native Hawaiian burials and cultural layer features in the area and the age is of adult. The third and fourth burials were presumed Native Hawaiian based on other known Native Hawaiian burials and the ages were undetermined. Ethnicity of the fifth burial is probable Native Hawaiian based on the flex position and other known Native Hawaiian burials and the age is of adult. The sixth burial is presumed Native Hawaiian based on the flex position and other known Native Hawaiian burials and the age is of adult. Ethnicity of the seventh burial site is presumed Native Hawaiian based on the flex position and other known Native Hawaiian burials and the age is of adult.

### **Determination**

SHPD makes the determination for relocation of burial sites three and four based on the following:

- Landowner agrees to relocate on site.
- KNIBC Kawaihau Geographic Representative recommends relocate on site.
- Possible harm from coastal erosion if left in place.

SHPD makes the determination to preserve in place burial sites one, two, five, six and seven based on the following:

- Landowner agrees to preserve in place.
- KNIBC Kawaihau Geographic Representative recommends preserve in place.

We look forward to receiving a Burial Site Component of a Preservation Plan and Archaeological Data Recovery Plan per HAR 13-300-40. Should you have any questions or concerns, please contact Ms. Kauanoe Hoomanawanui, Burial Sites Specialist at [Kauanoe.m.hoomanwanui@hawaii.gov](mailto:Kauanoe.m.hoomanwanui@hawaii.gov) or (808) 896-0475.

Sincerely,

*Hinano Rodrigues*

Mr. Hinano Rodrigues

Ka Pa‘akai o ka `Āina



History & Culture Branch Chief  
State Historic Preservation Division

Ccd:

Kauai Lead Archaeologist, [David.Buckley@hawaii.gov](mailto:David.Buckley@hawaii.gov)

Exploration Associates LTD, Nancy McMahon [explorationassociates@outlook.com](mailto:explorationassociates@outlook.com)

Figure 5: Letter of Determination State Historic Preservation  
Division for Inadvertently Discovered Burials at Niulani Road

Mei 5, 2025

Aloha mai,

I am, Milton K.C. Ching ana ma Kapaa, District of Kawaihau, County of Kauai. I am a resident of Kapaa since 1957, my parents also resided in Kapaa since the 1940's as well as my grand parents since the early 1920's. I am part Hawaiian, retired since 2012, I am currently an Archaeologist Monitor, employed by a Archaeologist Company.

My children and wife, are recognized Descendants from the ahupuaa of Waipouli by State Historic Preservation Division(SHPD), under the Department of Land and Natural Resources(DLNR). There ancestors are connected to Land Commission Award 3624 KAUMIUMI(k), Land Commission Award 8838 KAHUKUMA(k) and Land Commission Award 9013 KAWAIMAKANUI(k). Census records for 1900, lists 4th Great grandfather J. Kauhoe(k), for 1910 census, lists 3rd great grandmother, E. Pipili(w), for 1930 census, lists great grandfather Willie Hepa(k).

Our Native Hawaiian ancestors continued their daily lives, catching marine life, growing taro and other fruits and plants for subsistence as part of their Traditional Gathering Rights.

During my employment as a Archaeologist Monitor, I encountered "Inadvertant" multiple Burials at a residence on Niulani road, south of Keaka Road in Waipouli. Those Burials have been recorded with SHPD.

Sincerely,

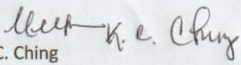
  
Milton K.C. Ching

Figure 6: Email from Milton Ching, recognized descendant