



NORTH HĀLAWA VALLEY: STEWARDSHIP MANAGEMENT PLAN

**HĀLAWA-LULUKU INTERPRETIVE DEVELOPMENT PROJECT
AND NĀ KŪPUNA A ME NĀ KĀKO'O O HĀLAWA, INC.**

Prepared in fulfillment of Cooperative Agreement No. 2550.01 (2012)
and OHA Memorandum of Agreement No. 20-01 (2020)

SEPTEMBER 2021

NORTH HĀLAWA VALLEY: STEWARDSHIP MANAGEMENT PLAN

Hālawā-Lulukū Interpretive Development Project and Nā Kūpuna a me Nā Kāko‘o o Hālawā, Inc.

Prepared By

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In collaboration with

Nā Kūpuna a me Nā Kāko‘o o Hālawā, Inc.



Adapted From

Nā Wai o Lulukū: Stewardship Management Plan and Strategic Action Plan for the Lulukū Cultural Landscape. Co-Authored by ‘Āina Momona: Trisha Kehaulani Watson, JD, Ph.D, Jane Au, M.A., Julie Au, M.A., Emily Makini, M.A.; and The Hālawā-Lulukū Interpretive Development Team, Office of Hawaiian Affairs: Ardena Saarinen, M.S., and Lori Walker, D. Arch.



Mai Maka'u I Ka Hana

Do not fear the work

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The co-authors would also like to thank the many agencies that toiled over many years on this mitigation project, including but not limited to, the Federal Highway Administration – Hawai'i Division, State of Hawai'i Department of Transportation, State Historic Preservation Division, Advisory Council on Historic Preservation, and Office of Hawaiian Affairs. These agencies provided time, energy and staff who persisted over many years to reconcile the complex issues to emerge out of the H-3 construction. Additionally, it would not have been possible to complete this plan without the ongoing support of these agencies who were notably responsive in providing necessary information, and without their support, this plan would lack in accurate information on the history of this project and current developments.

The HLID team would like to specifically to recognize the mana wāhine of 'Āina Momona, a community 501(c)(3), for collaborating with us on the creation of the Luluku Stewardship Management Plan (Nā Wai O Luluku) – their kāko'o was paramount for the successful completion of the plan. In addition, Nā Wai O Luluku has further served the community as a working template in the creation of the Hālawa Stewardship Management Plan. We would also like to thank Dr. Susan Lebo, Dr. Alan Downer, Dr. Jonathan Ching, Karen Chun, and the many employees from the State Department of Transportation for their expert contributions to this plan.

EXECUTIVE SUMMARY

This document serves as both a Stewardship Management Plan and 5-Year Strategic Action Plan for the North Hālawā Valley project area covered under the Hālawā-Luluku Interpretive Development Project for the purpose of fulfilling the obligations of the Federal Highway Administration and Hawai'i Department of Transportation to mitigate some of the impacts to cultural and archaeological resources resulting from the construction of Interstate H-3.

This plan outlines the long, complex history of this project and its associated mitigation efforts. It also aggregates the previous work completed through this history into this document with the hope that this will serve as both a single source for understanding how this effort finds itself at the milestone it reaches with the completion of this document and as an outline of our collective way forward as Hālawā-Luluku Interpretive Development Project dissolves and the cultural Stewards begin their long-anticipated work in restoring the cultural landscape of North Hālawā Valley.

This plan contains six (6) distinct parts: 1) Introduction, 2) Stewardship Management Plan, 3) Strategic Action Plan, 4) Graphic Master Plan, 5) Permitting Requirements and 6) Site Maintenance Plan and Procedures. Each unique part fulfills a specific requirement as called for in the variety of governing documents for the Hālawā-Luluku Interpretive Development Project Mitigation Efforts as detailed in the Final Interpretive Development Plan and its progeny.

Section One presents an overview of the applicable guiding documents and processes as they pertain to the development of the Stewardship Management Plan and Strategic Action Plan, the Stewardship selection process, and organizational information about the selected Stewards for the North Hālawā Valley Project Area.

Section Two is the Stewardship Management Plan as called for under Cooperative Agreement between the Office of Hawaiian Affairs and State of Hawai'i Department of Transportation, Final Interpretive Development Plan, and the Memorandum of Agreement between Nā Kūpuna a me Nā Kāko'o 'o Hālawā, Inc. and Office of Hawaiian Affairs. Building off of

the content from the Final Interpretive Development Plan, this Stewardship Management Plan fulfills the requirements as set forth by Office of Hawaiian Affairs, Hawai'i Department of Transportation, and the U.S. Federal Highways Administration – Hawai'i Region as needed to complete Hālawā-Luluku Interpretive Development Project obligations to the mitigation project.

Section Three is the Strategic Action Plan of Nā Kūpuna a me Nā Kāko'o o Hālawā, Inc. This plan details future programming activities and facility needs of the Selected Steward as called for in the 2020 Memorandum of Agreement.

Section Four includes pertinent information out of the recently completed site Feasibility Study and identifies limited temporary structures and infrastructure needs to be designed and built within the property area with the remainder of the Hālawā-Luluku Interpretive Development Project mitigation funding.

Section Five presents the possible Federal, State, and City and County of Honolulu permits and approvals that may need to be obtained to complete different elements of the work envisioned for the property area.

Section Six is the Site Maintenance Plan and Procedures. It details the various site conditions necessary for Nā Kūpuna a me Nā Kāko'o o Hālawā, Inc. to operate the site safely and the conditions under which Nā Kūpuna a me Nā Kāko'o o Hālawā, Inc. shall steward the land in partnership with Hawai'i Department of Transportation.

Hālawā-Luluku Interpretive Development Project took the lead in drafting this document in close cooperation and consultation with Nā Kūpuna a me Nā Kāko'o o Hālawā, Inc. This document is very similar in format and content to the Nā Wai O Luluku: Stewardship Management Plan and Strategic Action Plan for the Luluku Cultural Landscape, co-written by 'Āina Momona, a community 501(c)(3) and the Hālawā-Luluku Interpretive Development Project team as a guide for both Steward groups served within the project.

PROPERTY INFORMATION

Stewards / Applicant: Nā Kūpuna a me Nā Kāko'o o Hālawā, Inc.

Mailing Address: PO Box 11261 Honolulu, Hawai'i 96828

Copy all correspondence to Mrs. Clara "Sweet" Matthews 625 G Kunawai Lane, Honolulu, HI 96816

Main Contact Phone: Ulla Hasager 808-330-1276

Email: ulla@hawaii.edu

Landowner: State of Hawai'i, Department of Transportation

Property Address: Not available

Tax Map Key Number: (1) 99011002

SIHP Site Number: 50-80-10-2137 and 50-80-10-2010

State Land Use District: Conservation; subzone Resource

Proposed Acreage for Stewardship Management: Approximately 3.21 acres (Site 2137) and Approximately 5.33 acres (Site 2010)


Perennial or intermittent stream courses: North Hālawā Stream meanders through the valley and passes under the Trailblazer Access Road but does not intersect the project area location

Date of Plan Completion or Revision: September 2021

SIGNATURES

Applicant Certification: I have reviewed this Stewardship Management Plan and had opportunity to ask questions as to its contents and had any questions answered to my satisfaction. I hereby certify that I concur with the recommendations, representations, and conditions contained in this plan. I hereby agree that all stewardship and resource management activities implemented on the lands described here shall be done so in a manner consistent with the practices and procedures recommended.


Prepared for: Nicolas Tanaka, President, Nā Kūpuna a me Nā Kako'o o Hālawā Inc

Applicant's Signature:  _____

Date: Mar 23, 2022

Applicant Certification: I have reviewed this Stewardship Management Plan and had opportunity to ask questions as to its contents and had any questions answered to my satisfaction. I hereby certify that I concur with the recommendations, representations, and conditions contained in this plan. I hereby agree that all stewardship and resource management activities implemented on the lands described here shall be done so in a manner consistent with the practices and procedures recommended.

Prepared for: Clara 'Sweet' Matthews, Project Manager, Nā Kūpuna a me Nā Kako'o o Hālawā Inc

Applicant's Signature:  _____



Interim Project Coordinator

Date: Mar 24, 2022

Office of Hawaiian Affairs Approval: This plan meets the criteria established in the Office of Hawaiian Affairs Memorandum of Agreement No. 20-01 & Cooperative Agreement 2550.01

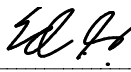
Approved by: Sylvia M. Hussey, Ed.D, Ka Pouhana, Chief Executive Officer, Office of Hawaiian Affairs

Signature: Sylvia M. Hussey

Date: Jan 18, 2022

State of Hawai'i, Department of Transportation Approval: This plan meets the criteria established in the Office of Hawaiian Affairs Cooperative Agreement 2550.01.

Approved by: Edwin Sniffen, Deputy Director, State of Hawai'i, Department of Transportation, Highway Division

Signature:  _____

Date: Mar 23, 2022

ABBREVIATIONS

ACHP =	Advisory Council on Historic Preservation	HLID =	Hālawā-Luluku Interpretive Development
AHLC =	Aloha ʻĀina Health & Learning Center	HoLIS =	Honolulu Land Information System
APE =	Area of Potential Effect	HRS =	Hawaii Revised Statutes
BPBM =	Bernice Pauahi Bishop Museum	MOA =	Memorandum of Agreement
CA =	Cooperative Agreement	NHPA =	National Historic Preservation Act
CDUP =	Cultural District Use Permit	NHO =	Native Hawaiian Organization
CIA =	Cultural Impact Assessment	NKNKHI =	Nā Kūpuna a me Nā Kakoʻo ʻo Hālawā Inc
CPE =	Community Planning & Engineering	NMFS =	National Marine Fisheries Service
CWA =	Clean Water Act	NPDES =	National Pollutant Discharge Elimination System
CWB =	Clean Water Branch	NPS =	National Park Service
CWRM =	Commission on Water Resource Management	NRHP =	National Registry of Historic Places
CZM =	Hawaiʻi Coastal Zone Management Program	OCCL =	Office of Conservation and Coastal Lands
CZMA =	Federal Coastal Zone Management Act	OHA =	Office of Hawaiian Affairs
DA =	Department of the Army	RFQ =	Request for Qualifications
DOH =	State of Hawaiʻi Department of Health	ROW =	Right-of-Way
DPP =	Department of Planning and Permitting	SAP =	Strategic Action Plan
EA =	Environmental Assessment	SHPD =	State Historic Preservation Division
EIS =	Environmental Impact Statement	SHPO =	State Historic Preservation Officer
EPA =	Environmental Protection Agency	SIHP =	State Inventory of Historic Places
ESA =	Endangered Species Act of 1973	SMP =	Stewardship Management Plan
FHWA =	Federal Highway Administration	SOQ =	Statement of Qualification
HAR =	Hawaiʻi Administrative Rules	TMK =	Tax Map Key
HDOT =	State of Hawaiʻi Department of Transportation	USACE =	U.S. Army Corps of Engineers
HECO =	Hawaiian Electric Company	USFWS =	U.S. Fish and Wildlife Service
HIOSH =	Hawaiʻi Occupational Safety and Health Law	WG =	Working Group



1. INTRODUCTION

HĀLAWA LULUKU INTERPRETIVE DEVELOPMENT PROJECT

This section presents an overview of the following guiding documents as they pertain to the development of the Stewardship Management Plan (SMP): the 1987 Memorandum of Agreement (MOA); a brief history of the Hālawā-Lulukū Interpretive Development (HLID) Project; the 1999, 2010, & 2012 Cooperative Agreements (CA); the resulting 2008 Interpretive Development Plan (IDP) and the 2019 MOA between the Office of Hawaiian Affairs (OHA) and the selected Stewards of Hālawā Valley. The selection process for the Stewards as well as their organizational information is included thereafter.

1.1 Overview of the 1987 Memorandum of Agreement

Finalized in 1987, the MOA (See Appendix A, “Memorandum of Agreement”, 1987) is an agreement to ensure compliance with Section 106 of the National Historic Preservation Act (NHPA) for the Interstate H-3 (H-3) Highway project. Signatories include the Hawaiʻi State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation (ACHP), and the Federal Highway Administration (FHWA). The State of Hawaiʻi Department of Transportation (HDOT) and OHA signed as concurring parties. Measures listed in the MOA stipulations are to be carried out in consultation with all signatories. In theory, this is meant to enable a collaborative approach to the mitigation process. Stipulation B of this MOA required HDOT, in consultation with OHA, FHWA, and SHPO, to develop an IDP.

For reference, the roles of the 1987 MOA signatories have been provided below:

HDOT: Landowners; State agency which implements FHWA projects. FHWA delegates their authority to HDOT to represent FHWA on routine decisions to move the project forward.

FHWA: Financier; Federal agency with legal and financial responsibility for Section 106, NHPA, compliance.

OHA: OHA, as a Native Hawaiian Organization (NHO) identified in the NHPA, serves as a recognized consulting party for the Section 106 process.

SHPO: As required by Section 106, advises and assists FHWA in carrying out their Section 106 responsibilities.

ACHP: Federal agency charged with historic preservation leadership within the Federal Government. Section 106 requires Federal agencies to consider the effects of their actions on historic properties and provide the ACHP an opportunity to comment on Federal projects prior to implementation.

Table 1. Roles and Responsibilities of the Parties to the 1987 MOA

Party to MOA	Role	Responsibility	Current Point of Contact
<i>Federal Highway Administration – Hawai'i Division (FHWA)</i>	Signatory. Acting agency / financier.	Federal agency with legal and financial responsibility for Section 106, NHPA, compliance.	Assistant Division Administrator
<i>State Historic Preservation Officer (SHPO)</i>	Signatory. Regulating agency.	As required by Section 106, advises and assists FHWA in carrying out their Section 106 responsibilities.	Alan Downer Susan Lebo
<i>Advisory Council on Historic Preservation (ACHP)</i>	Signatory. Regulating agency.	Federal agency charged with historic preservation leadership within the Federal Government. Section 106 requires Federal agencies to consider the effects of their actions on historic properties and provide the ACHP an opportunity to comment on Federal projects prior to implementation.	Sara Stokley
<i>Hawai'i Department of Transportation (HDOT)</i>	Concurring Party. Landowners.	State agency which implements FHWA projects. FHWA delegates their authority to HDOT to represent FHWA on routine decisions to move the project forward.	HLID Project Manager
<i>Office of Hawaiian Affairs (OHA)</i>	Concurring Party.	OHA, as a Native Hawaiian Organization (NHO) identified in the National Historic Preservation Act, serves as a recognized consulting party for the Section 106 process.	Kamakana Ferreira

1.2 Overview of HLID Creation

With the opening of the Interstate H-3 in 1997, work on the IDP could commence. HLID was established in 1999 through CA #1385 between OHA and HDOT. HLID's purpose is to develop recommendations for FHWA and HDOT to mitigate adverse impacts to select cultural resources affected by the H-3 Freeway construction. HLID has served as a liaison between the community and entities such as OHA, HDOT, and FHWA. The HLID Project officially commenced in 2000 when the first Project Coordinator was hired to begin planning for the IDP.

The healing process that HLID's completed plans enable will take root in the mitigation recommendations that HLID is proposing for implementation and is anticipated to evolve over time. The long-term implementation of the proposed mitigation actions will be carried out by Stewards who manage the project sites in perpetuity through agreements with HDOT which has delegated authority to oversee the State lands on which the project sites exist. It is HLID's directive to provide a strong foundation for the Stewards to build upon as it is they, our people, who will ultimately serve as the primary vehicle to implement this healing process in perpetuity.

This project provides a unique opportunity for a collaborative effort between the community and government agencies to take actions to better the conditions of the natural and cultural resources of public lands. In this regard, HLID's approach aims to: address multiple organizational and community-driven objectives; achieve mutual benefits for all parties involved; and comply with Federal, State, and County rules and regulations.

1.3 Overview of the 1999 Cooperative Agreement

According to the 1999 CA #1385 (Office of Hawaiian Affairs Contract #1385, 1999), HLID was to draft an IDP and implement selected elements of the IDP. Eleven (11) Million dollars (90% Federal - FHWA; 10% State - HDOT) was initially set aside for this mitigation effort. Two amendments have been made to the CA as project demands evolved over time: CA#2550 in 2010; and, CA#2550.01 in 2012. Mainly, the two amendments added the responsibility of creating a SMP to HLID and gave OHA responsibility for the procurement of design and construction firms.

The 1999 CA outlined three phases for the HLID Project:

- 1. The Planning Phase (2000-2009):** *The Planning Phase included intensive public consultation, the establishment of a Working Group (WG), and the creation of the 2008 IDP. A Plan to Plan and Strategic Plan were crafted in consultation with the WG to guide the steps necessary to create the IDP. R.M. Towill was hired by HLID to write the plans and incorporate community input. FHWA and HDOT recognize the December 2008 version as the official Final IDP document (See Appendix B).*
- 2. The Design Development Phase (2010-current):** *HLID evaluated the conceptual project suggestions as provided in the 2008 IDP and filtered down these abstract concepts into the "Project Descriptions: North Hālawā and Luluku Project Areas" document. The "Project Descriptions" document was designed to inform potential contractors during procurement solicitation about what HLID intends to build and implement in a concise, direct manner. Projects identified in the IDP were part of a grander vision for the HLID project areas. The vision in its entirety could not feasibly be done within HLID's budget; thus, mitigation elements needed to be prioritized and selected for feasibility.*
- 3. The Construction and Implementation Phase (future):** *This phase of work includes the implementation of preservation plans and construction plans from the previous phase.*

1.3.1 The 2010 Cooperative Agreement

OHA and HDOT entered into CA Contract No. 2550, dated June 29, 2010 (See Appendix C, Office of Hawaiian Affairs Contract #2550, 2010), which replaced Contract No. 1385, in which OHA was additionally tasked with the creation of an SMP. The language of the CA for this section as it relates to the SMP is as follows:

CA 2550 (6/29/2010)

3. A. (2) OHA shall also develop a Stewardship and Management plan (the "Plan") that will guide the management and stewardship of the Project after completion of the Implementation phase. The Plan shall be approved by HDOT and FHWA and shall guide the organization(s) selected to manage the project for HDOT once the Implementation phase is complete.

1.3.2 The 2012 Amendment to the Cooperative Agreement

In 2012, OHA and HDOT amended the 2010 CA No. 2550 through Contract No. 2550.01, dated June 20, 2012 (See Appendix D, Office of Hawaiian Affairs Contract Amendment #2550.01, 2012). This amendment gave OHA additional responsibility for the coordination and management of design and construction firms for the construction and implementation phase. The language of the CA for this section as it relates to the SMP is as follows:

CA 2550 (6/29/2010)

3. A. (1) As Project Manager, OHA shall be responsible for coordination and management of Project design and construction activities. OHA and its subcontractor(s) shall be responsible for the day to day project activities (project direction, project related meetings with applicable government agencies, professional service providers, vendors, and community) towards project completion.

3. A. (2) OHA shall also develop a Stewardship and Management Plan (the "Plan") that will guide the management and stewardship of the Project after completion of the Implementation Phase. The Plan shall be approved by HDOT and FHWA and shall guide the organization(s) selected to manage the project for HDOT once the Implementation Phase is complete. The Plan shall be delivered by a date mutually agreed upon by OHA, HDOT and FHWA in the Project Schedule. The Project Schedule, in the form of a living document, will inform HDOT and FHWA of OHA's project deliverables, milestones and estimated completion.

Additionally, in the 2012 Amendment, OHA proposed a new budget which was accepted by HDOT and FHWA. This new proposed budget, which was approved by HDOT, made significant changes to the monies appropriated to each of the phases of the mitigation efforts identified under both the 1987 MOA and CA No. 1385. The initial planning of the IDP was estimated to cost \$500,000. By 2012, approximately \$2.6 million had been spent on this line item (See Tables 2 and 3) as additional consultation was needed and additional follow up studies were requested by the WG, HLID, HDOT, and FHWA.

Table 2. HLID Operating Budget

"Original Budget" - August 10, 1999			Proposed Budget from OHA - March 2012		
Item	Budget	Percent	Item	Budget	Percent
A. Preliminary Design of IDP	500,000.000	4.5%	Phase I - Planning	2,648,150.38	24.1%
B. Final Design of IDP	500,000.00	4.5%	Phase II - Design & Devel.	3,862,023.77	35.1%
C. Implementation of IDP	9,500,000.00	86.4%	Phase III - Implementation	3,077,038.48	28.0%
Other Reimbuseable Cost	500,000.00	4.5%	Project Contingencies	1,412,787.37	12.8%
Total	11,000,000.00	100.0%	Total	11,000,000.00	100.0%
Expenditures from "Original Budget" - May 31, 2011			Expenditures as of February 29, 2012		
Item	Budget	Percent	Item	Budget	Percent
A. Preliminary Budget of IDP	1,321,568.99	12.0%	Phase I - Planning	2,648,150.38	24.1%
B. Final Design of IDP	691,664.04	6.3%	Phase II - Design & Devel.	672,775.56	6.1%
C. Implementation of IDP	605,380.59	5.5%	Phase III - Implementation	--	0.0%
Other Reimbursable Cost	469,809.92	4.3%	Project Contingencies	--	0.0%
Total	3,088,423.54	28.1%	Total	3,320,925.94	30.2%

- a. Phase 1 - Planning - \$2,648,150.38; and
b. Phase 2 - Design and Development - \$3,862,023.77; and
c. Phase 3 - Implementation - \$3,077,038.48; and
d. Contingencies - \$1,412,787.37.

Table 3. 2012 Modifications to Mitigation Funding

Original Item	Modified Item	Original Budget	Modified Budget	Difference
Preliminary Design of IDP	Phase I - Planning	500,000 (4.5%)	2,648,150.38 (24.1%)	+2,148,150.38 (+19.6%)
Final Design of IDP	Phase II - Design and Development	500,000 (4.5%)	3,862,023.77 (35.1%)	+3,362,023.77 (+30.6%)
Implementation of IDP	Phase III - Implementation	9,500,000 (86.4%)	3,077,038.48 (28.0%)	-6,422,961.52 (-58.4%)
Reimbursable costs to OHA (administrative costs and other expenses incurred on the project)	Project Contingencies	500,000 (4.5%)	1,412,787.37 (12.8%)	+912,787.37 (+8.3%)
		11,000,000 (100%)	11,000,000 (100%)	

1.4 The 2020 Memorandum of Agreement between OHA and Stewards

The IDP (Hālawā-Luluku Interpretive Development Project, 2008), identified sites 50-80-10-2137 and 50-80-10-2010 of North Hālawā Valley as part of the HLID project, with the understanding that a non-profit organization stewardship group (hereinafter “Stewards”), consisting of cultural practitioners and caretakers of Hālawā, would need to be formed to ensure the operations, maintenance, and program administration for any activities and built structures at the North Hālawā Valley sites after completion of the HLID project. The need for an SMP that required community commitment thus became apparent.

On November 1, 2015, OHA posted a solicitation, Request for Qualifications (RFQ) No. HLID-2015-01, for stewardship of the “North Hālawā Valley project area” designated as the “under the viaduct” location, specifically the HDOT parcels 4 (Rev1) and 5, and the “up valley” location, which is confined to the boundaries of archaeological sites 50-80-10-2137 and 50-80-10-2010, as described in “Project Descriptions: North Hālawā Valley and Luluku Project Areas,” dated July 28, 2014. Nā Kūpuna a me Nā Kāko’o o Hālawā, Inc. (NKNKHI) was the sole qualified applicant to respond to the solicitation. OHA recommended the appointment of NKNKHI as the selected Steward for the HLID North Hālawā Valley project area to fulfill the role of the Steward as identified in the December 12, 2008 IDP, and NKNKHI accepted said appointment on March 26, 2016.

On August 30th, 2020 NKNKHI executed a MOA to set forth the understanding of the roles and responsibilities of NKNKHI and OHA as pertaining to the stewardship of the HLID North Hālawā Valley Project Area. The process for selecting the Hālawā Stewards and developing the MOA is detailed below. address multiple organizational and community-driven objectives; achieve mutual benefits for all parties involved; and comply with Federal, State, and County rules and regulations.

1.5 Stewardship Selection Process

1.5.1 OHA’S Request for Qualifications

The RFQ was issued to ensure a fair process and that all applicants (Submitters) were evaluated equally and objectively. Selection of the Stewards followed a two-step process which resulted in the Stewards being selected for North Hālawā Valley. One of the objectives of the RFQ was to make the Statement of Qualifications (SOQ) review process easy and efficient, while giving Submitters ample opportunity to highlight their qualifications. The SOQ was considered a complete set of qualifications necessary to satisfy the qualification requirements described in OHA RFQ No. HLID-2015-01.

1.5.2 Statement of Qualifications Review Committee

A review committee was designated by OHA to perform all evaluation requirements. The committee was composed of individuals with experience in, knowledge of, and program responsibility for the requirements identified in RFQ No. HLID 2015-01.

1.5.3 Evaluation Steps

OHA implemented a neutral evaluation process through its procurement regulations to select the Stewards. These steps are explained below.

Step 1 – Written Statement of Qualifications

SOQ responsiveness was based upon a point system and evaluated in accordance with the “SOQ Evaluation Criteria Scoring Form” in Section 4.4 of the RFQ for Hālawa. The purpose of this Step was to determine whether a Submitter was sufficiently responsible and responsive to RFQ qualification requirements to permit a complete evaluation. The top three (3) Submitters in this step for Hālawa would be recommended to proceed to the discussion portion of the evaluation process. A minimum score of 70% was required to be considered for stewardship.

Step 2 – Discussions

The Discussion portion allowed the evaluation team to meet the Submitter and engage in a conversation regarding the stewardship of the Project Area. The Discussion was scored based on five equally weighted twenty (20) point categories for a total of 100 points.

1.5.4 Recommendation for Stewardship

The average written score from Step 1 and the average discussion score from Step 2 were combined to produce a final score. The submitter with the highest final score for Hālawa would be recommended as the Stewards by the review committee.

1.6 Selected Stewards: Nā Kūpuna a me Nā Kāko’o o Hālawa, Inc. (NKNKHI)

In 1992 a group of Hawaiian practitioners went into Hālawa to protest the H-3 and to protect the cultural assets. This group consisted of 5 women and 1 man from Lā’ie, Alewa, and Kunawai. One of these individuals, Clara “Sweets” Matthews, continues to be a presence in the valley to this very day. She and her late husband, Robert “Boots” Matthews, have been bringing in groups to protect, preserve and perpetuate the Hawaiian culture in the valley. People have visited from many places like Australia, Japan, Sāmoa, Yap, Sweden, Germany, Denmark, and throughout continental U.S. The people in these groups also come from many different walks of life, such as at-risk youth, elderly, inmates, and from schools such as Kamehameha Kapālama, Hawai’i Baptist Academy, ‘Iolani School, and the University of Hawai’i at Mānoa.

To continue her vision, Sweets formed a non-profit organization called Nā Kūpuna a me Nā Kāko’o o Hālawa Inc. (NKNKHI). NKNKHI’s mission is to promote the preservation, cultural stewardship, and education in Hālawa Valley. The board of directors for this organization are as follows: Nicholas Tanaka - President, Healani Matthews - Vice President, Ulla Hasager - Secretary, and Jan Becket - General Board Member. Clara Matthews serves as the Project Manager and oversees the operation of the organization. With her extensive knowledge as not only a practitioner but a Kupuna (elder or grandparent), Sweets has enabled NKNKHI to effectively and efficiently operate with a Hawaiian way of thinking at its core.

Native Hawaiians are in need of ways to heal beyond the western concepts and practices of healing today. Native Hawaiians have the highest rates of incarceration, heart disease, cancer, and diabetes. A cultural learning center in Hālawa has a great number of possibilities to help alleviate the many issues that Native Hawaiians face today. NKNKHI believes that HLID is taking the first small steps in order to ensure a prosperous future for all Hawaiian and non-Hawaiians alike through the stewardship process and believes that we are the most qualified group for this role.

1.6.1 NKNKHI Organizational Structure and Contacts

Table 4. Contact List for Nā Kūpuna a me Nā Kāko’o o Hālawa

Sweet Matthews	Core Team – Project Manager	808-536-6810 hm	808-216-3870 cell
Nicholas Tanaka	Core Team – President/Chair	808-344-0218	tanakan@hawaii.edu
Healani Matthews	Core Team - VP	808-382-1343	hea808625@gmail.com
Ulla Hasager	Core Team - Secretary	808-330-1276	ulla@hawaii.edu
Jan Becket	Core Team – General Member	808-265-3727	janbecket.net@gmail.com
Daven Chang	Core Team – General Member	808-232-5819	djchang@hawaii.edu



2. STEWARDSHIP MANAGEMENT PLAN

2.1 Introduction to the Stewardship Management Plan

This SMP speaks to the various programs and activities that NKNKHI will develop and implement to support the fulfillment of select mitigation and maintenance obligations required under the 1987 MOA and its progeny of agreements. As responsibility for 1987 MOA obligations primarily lies with FHWA, any of their kuleana that the Stewards take up will need to be agreed upon in writing.

The goal of this document is to develop a plan to perform stewardship work for the HLID Hālawā Project Area. Work will be done in accordance with this plan and the 5-Year Strategic Action Plan (SAP) to move towards implementing as much of the IDP vision as funding remains available from the HLID funds. The SAP, Graphic Master Plan, and Site Maintenance Plan and Procedures outline the starting point for NKNKHI to begin implementing their programs.

As recommended by HLID, this plan should be viewed as a “living document” that can be revised, adapted, and changed upon agreement between the Stewards and HDOT. Updates to this plan are to be expected on an as-needed basis as that it provides guidelines for longterm management to mitigate the adverse impacts of H-3 on the Hālawā project site and its cultural resources.

2.1.1 North Hālawā Valley Mitigation Objectives

The purpose of the mitigation objectives is to guide the development of the SMP for project sites in North Hālawā Valley. Paired with the landowner’s (HDOT) requirements, the mitigation objectives will serve as the guideline’s stewards will utilize to address the adverse impacts identified in the 2008 IDP and consequent work conducted by Stewards within the specified project areas.

The Mitigation Objectives are:

1. “Healing of the ‘āina “ – Implement actions to:
 - a. Preserve cultural and historic sites through site stabilization;
 - b. Implement preservation and restoration plans to protect existing resources by designating kapu areas
 - c. Communicate the significance of the cultural landscape and features through an interpretive program; and
 - d. Heal the ‘āina and its people
2. Sustainability
 - a. Establish and utilize sustainable practices within the valley that demonstrate how the host Hawaiian culture cares for the land
3. Access
 - a. Develop facilities and implement programs and strategies that provide access into the valley to individuals’ (and groups’) pursuit of traditional Hawaiian cultural practices.

4. Natural/Ecological Resources

a. Implement actions that promote ecological balance of the environment and perpetuate both the knowledge and practice of Native Hawaiian culture. Restore native vegetation and control hoofed and other feral animals in a culturally and environmentally appropriate manner, minimizing excess cruelty and safety hazards.

5. Educational Program

a. Develop educational programs, materials, and facilities to interpret the historic and cultural resources of the project area to a wider audience by reconnecting the people with the 'āina. The documentation and sharing of modern-day efforts to protect the 'āina from destruction are a major component

6. Recreational Programs

a. Identify and develop culturally sensitive outdoor recreational pursuits which promote sharing the 'āina and complements Hawaiian history, culture and the traditions of these lands and people. Work with organizations involved with these activities in ensuring culturally and environmentally appropriate access.

2.2 North Hālawā Valley Project Area

The purpose of the mitigation objectives is to guide the development of the SMP for project sites in North Hālawā Valley. Paired with the landowner's (HDOT) requirements, the mitigation objectives will serve as the guideline's stewards will utilize to address the adverse impacts identified in the 2008 IDP and consequent work conducted by Stewards within the specified project areas.

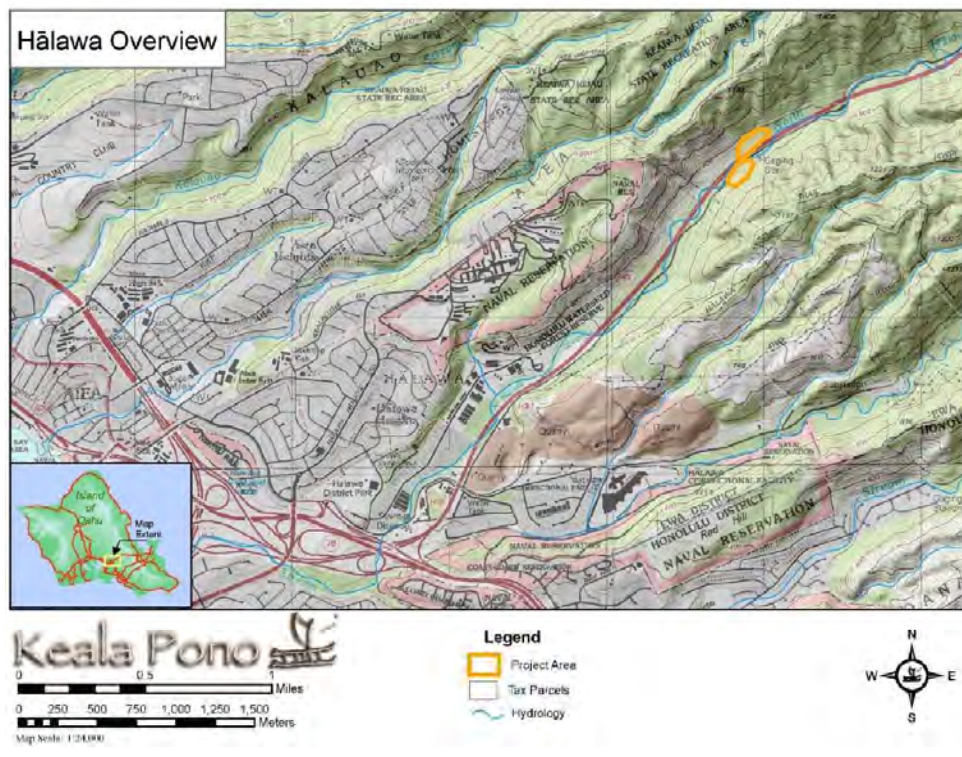


Figure 1. Hālawā Project Area (Keala Pono Archaeological Consulting, LLC; Hālawā-Lulu-ku Interpretive Development Project, 2016)

2.2.1 Project Area Boundaries

The traditional lands of Hālawā ahupua'a are located on the leeward side of the Kō'olau Mountain Range in the 'Ewa district on the island of O'ahu, extending from the Kō'olau Mountain Range to Pearl Harbor. The ahupua'a is further divided into two sections - North Hālawā and South Hālawā Valleys. The project area is currently limited to the upper portions of the North Hālawā Valley, an area of approximately 3.48 square miles. Aiea Ridge borders the Valley to the north, and the North Hālawā Ridge to the south. The headwall at the back of the valley is part of the Kō'olau Range, which separates North Hālawā Valley from Ha'ikū Valley. Kamananui Stream (aka North Hālawā Stream) travels the length of the valley from the headwaters at the Kō'olau Summit to Pearl Harbor. The North Hālawā Valley project area is inclusive of two separate project sites.

The first project site, referred to as "Under the Viaduct," is a 2.5-acre paved area under the viaduct and sheltered by the H-3. The area is adjacent to Hawaiian Cement from Hālawā Valley Road. This site is part of Tax Map Key (TMK): (1)9-9-010: 010 and (1)9-9-073: 028. The limits of this site include the eight (8) bays underneath the H-3 separated by the viaduct support pillars and within the H-3 right-of-way. The project site has been previously disturbed, with a majority of the surface area being impervious with asphalt pavement. The current zoning designation of TMK (1)9-9-010:010 is general agriculture district (AG-2) and TMK (1)9-9-073: 028 is intensive industrial district (I-2). Currently this area is rented out by HDOT from various tenants and used as commercial office space, materials storage and base yards (Community Planning and Engineering, Inc., 2019). In the future, if Stewards submit plans that are approved and funding allows, the area has potential to support a plant nursery, a storage area, parking, and a dumpster. Any future structures would strictly be used to support steward functions as detailed in an updated SMP unless other arrangements are made with HDOT in a Use & Occupancy Agreement.

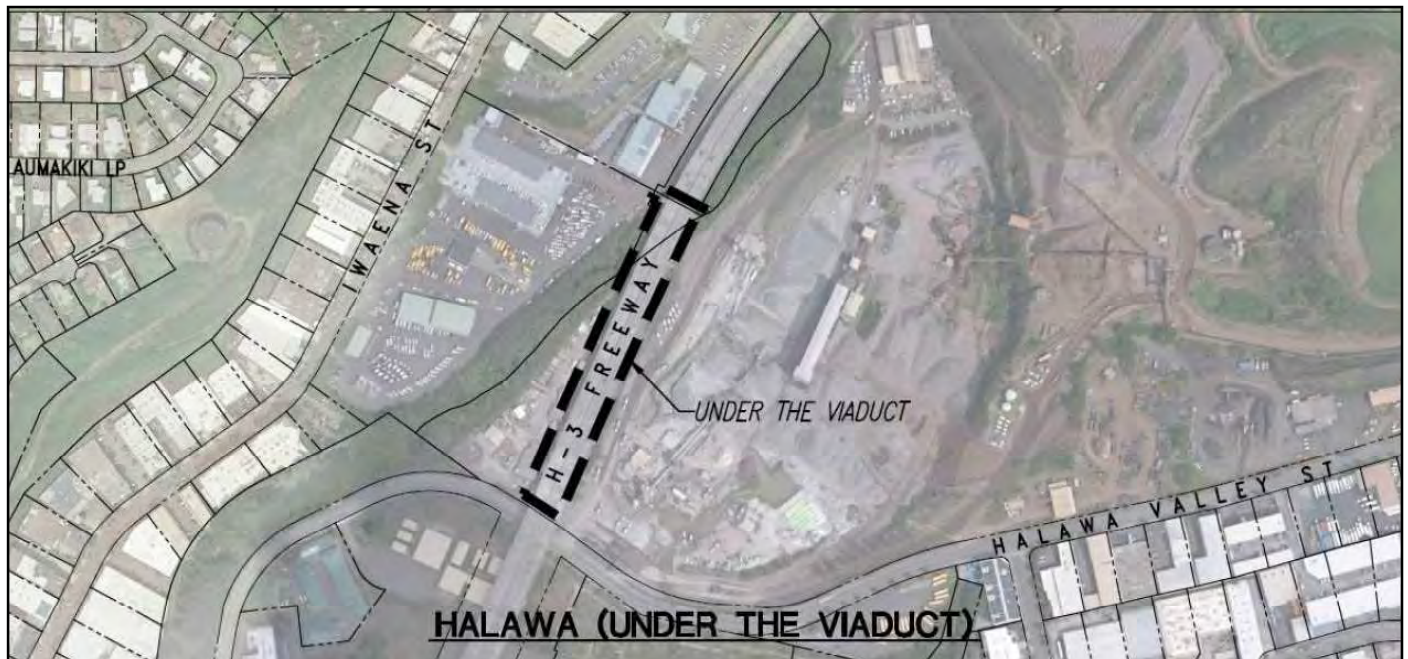


Figure 2. Under the Viaduct Location (Community Planning and Engineering, Inc., 2019)

The second project site includes State Inventory of Historic Places (SIHP) numbers 50-80-10-2137 and -2010, which are located mauka (inland) of the first project site along the Trailblazer Access Road. This site is part of TMK: (1)9-9-011: 002 and is confined to the boundaries of archaeological site 2137 known as Hale O Papa, and archaeological site 2010 known as the Luakini Heiau. The current zoning designation of TMK (1)9-9-011: 002 is restricted preservation district (P-1). According to the State of Hawai'i Department of Land and Natural Resources (DLNR), the project site is within the resource subzone of the conservation district (Community Planning and Engineering, Inc., 2019). Currently, these areas are regularly monitored and cared for by NKNKHI.



Figure 3. Physical Boundaries of Site 2010 & Site 2137, adapted from Draft Hälawa Preservation Plan (Keala Pono Archaeological Consulting, LLC; Hälawa-Luluku Interpretive Development Project, 2016)

2.2.1.1 Site 2010

Site 2010 covers a large portion of the valley slope in the lower portion of the project area. It consists primarily of a series of agricultural terraces, clearing mounds and associated activity areas. There are two linear mounds, possibly representing boundary markers that divide the site into three sections. Each section has a minimum of one rectangular enclosure that probably represents a habitation locale, agricultural terraces, and activity areas. A fourth enclosure may represent a religious structure of an earlier period. Other indications that some areas of Site 2010 were used for religious purposes related to smaller shrine activities include several upright stones at the upstream and downstream ends of the site, a feature complex at the uppermost part of the site that has terraces, a platform, and more upright stones, and perhaps even the zoomorphic bowl found on the surface of one terrace (Hartzell, et. al. 2003).

2.2.1.2 Site 2137

Site 2137, located near North Hālawā Stream, has two main components; a traditional native Hawaiian portion representing a habitation and agricultural complex, as well as a twentieth century residence related to the Honolulu Plantation Company. The traditional Hawaiian component is interpreted as a permanent habitation, probably a kauhale (household) composed of different roofed structures and distinct activity areas. The archaeological findings suggest that these activities included cooking, construction of structure support by posts, and the manufacture and use of stone tools. Distinct sleeping and storage areas, as well as a possible family shrine, are also present. Occupation of this site began as early as the fourteenth century (Hartzell, et. al. 2003).

2.2.2 Archaeological Site Locations

SIHP sites 50-80-10-2137 and -2010 are just two of over 70 sites that were identified in the data recovery reports done for the construction of H-3 in North Hālawā Valley. All sites fall (at least partially) within the Highway Right-of-Way (ROW). According to HDOT, this area was eligible for mitigation per the 1987 MOA. At the time of H-3 construction, no “area of potential effect” was defined. Now, the area defined as the Highway ROW is being used to define the areas eligible for mitigation. The only reason why the two sites in Hālawā are an exception to this rule is because HDOT owns the valley from ridge to ridge and the areas hosting mitigation have already undergone archaeological investigation. Sites 2137 and 2010 were recommended for “interpretive preservation” by archaeologists (Hartzell, Lebo, Lennstrom, McPherron, & Olszewski, 1999).

Through discussions with community members, it was decided that sites 2137 and 2010 were satisfactory to serve as the focus for mitigation work in North Hālawā Valley. Both sites are located “Up Valley” in TMK (1) 9-9-011:002 along the Trailblazer Access Road. Travelling mauka along the Trailblazer Access Road the archaeological sites are situated near Gate 3. Site -2137 is located to the right (east) of the road while Site -2010 is located to the left (northwest).

Although UTM coordinates and area has been included in the Bernice Pauahi Bishop Museum (BPBM) archaeology reports for each site (See Table 5), the exact perimeter was only recently staked by a contractor working together with Keala Pono to demarcate a 5m buffer zone from the features closest to the perimeter of each site (Keala Pono Archaeological Consulting, LLC; Hālawā-Lulukū Interpretive Development Project, 2016). Only approximate acreage cover and locations are provided in this plan. More detailed and accurate maps/data will be provided in the forthcoming Preservation Plan.

Table 5. North Hālawā Valley Project Area archaeological sites, UTM coordinates and area

Site # (State)	Bishop Museum #	Area (m ²)	Area (Acres)	Archaeological Recommendation	UTM Coordinates Zone 3- (E/N)
50-80-10-2137	50-Oa-B01-75	14,000	3.21	Interpretive	614534 / 2366138
-2010	B01-85	21,600	5.33	Interpretive	614646 / 2366337

2.2.2.1 Condition Assessment

Because a considerable amount of time has passed since the completion of the original archaeological work completed by BPBM, the preservation plan itself is to be preceded by a “condition assessment” plan which will invite SHPD review. To ensure compliance, the Contractor’s team and HLID will need to collaborate with SHPD as appropriate throughout the planning and construction phases associated with rehabilitation and preservation.

HLID has procured a condition assessment for North Hālawā Valley sites 2137 and 2010 that are located within the HLID project area. In addition to the impacts of the BPBM excavation work, there are also impacts from increased flooding and erosion caused by a large boulder moved in Hālawā Stream during the H-3 construction, and a general lack of consistent HDOT maintenance in the area.

2.2.2.2 Preservation Plan

The 1987 MOA requires the development of a preservation plan to facilitate the appropriate preservation actions for areas eligible for mitigation in the North Hālawā Valley project area. HLID has planned that the SMP, SAP, Graphic Master Plan, and Site Maintenance Plan and Procedures will be prepared concurrently with the development of the preservation plan.

None of the immediate and regular NKNKHI program activities are planned for site 2010, except for occasional removal of invasive grasses when there are enough NKNKHI members and volunteers available to assist. Select support facilities are currently being planned for Under the Viaduct and Site 2137 beginning near the Trailblazer Access Road that runs adjacent to the site. Currently, and for the immediate future, program activities are taking place on Site 2137.

Although not specifically mentioned in the work for Hālawā in the 2008 IDP, Site 2010 was to be included with Site 2137 because they are viewed as a pair. The Stewards may advocate for a new preservation plan for Site 2010 once they have established capacity to support and maintain preservation plan recommendations currently being written by a contracted archaeologist for Site 2137. This plan is in-progress and pending final approval from SHPD.

Therefore, the activities under the SMP, SAP, Graphic Master Plan, can proceed concurrent to the preparation of the condition assessment and preservation plan, and it is critical that they do so, as this project has already experienced too many delays.

The contracted archaeologist will develop an updated condition assessment and preservation plan for the North Hālawā Valley Project Area that will conform to all applicable NHPA requirements and relevant Hawai‘i Administrative Rules (HAR) when developing the preservation plan. The preservation plan will detail instructions for preservation (protection and stabilization) and rehabilitation (repair, replacement, or alteration). Long-term maintenance actions may need to be updated in the SMP when the forthcoming preservation plan has received final approval from HDOT and SHPD. The recommended treatment actions will be justified by archaeological interpretation and community input. The preservation plan will abide by the National Park Service (NPS) treatment methodologies. Preservation/Rehabilitative work beyond Construction Phase I is to be carried out by the Stewards per the SMP.

NKNKHI and HLID will work with the contracted archaeologist to complete the preservation plan and agrees to cooperate fully with the directives of the preservation plan as approved by SHPD.

2.2.3 IDP Vision for North Hālawā Valley

North Hālawā Valley serves as a healing and learning center through the preservation of traditional cultural practices. North Hālawā Valley is observed as a healing place for the mind and body, a place for learning and a place of worship. Practitioners, students, and visitors are immersed into an environment that is experiencing healing through the efforts of volunteers working on restoring native vegetation, and the stabilization and restoration of cultural sites. Knowledge and education are promoted through the teaching of traditional and contemporary practices on the land.

Discussions with the WG revealed that while 70+ sites have been identified, many more sites remain unknown and could have been adversely impacted by the construction of the H-3. Based on Bishop Museum's recommendations, it was determined that only two (2) of the sites, 2010 and 2137 were prioritized for interpretation and mitigation. North Hālawā Valley projects within the IDP have thus developed around the WG's recommendation to include sites 2010 and 2137.

While the physical path of H-3 and the Trailblazer Access Road are clearly recognizable, other scars are discernible from a Native Hawaiian perspective. The 'eha or pain exists on a deeper spiritual, cultural, and familial level. This wahi pana (storied place) can provide a unique learning environment by sharing the contrast between the built and spiritual environment, serving as a reminder that while the H-3 relieves commuter traffic, it came at a heavy cost to 'āina, our most precious resource (Hālawā-Lulukū Interpretive Development Project, 2008).

2.3 Identified Impacts and Recommendations from IDP

The impacts found within the IDP and suggested mitigation measures are provided below. These IDP mitigation recommendations were instrumental in determining the current course of action for the North Hālawā Project Area.

2.3.1 Impacts

- Destruction of cultural (habitation, agriculture) and worship sites
- Destruction of pre- and post- Contact era built structures
- Obstruction and disruption of active cultural practice
- Changes to the landform; increased slope instability of portion of the valley
- Reduction of access into the valley and cultural sites
- Increase in hazards (landslides)
- Impact to flora and fauna and the introduction of non-native species
- Runoff from eroded areas and pollution from erosion-control measures
- Altered stream alignment and stream flow
- Disturbance of burials
- Exposures of sacred and natural resource area to abuse (such as artifact and plant theft)
- Impact of trash, light, and noise
- Obstruction of views into the valley, views of the Ko'olau summit, and night sky

2.3.2 Recommendations

- Limit motorized traffic to HDOT service vehicles and program vehicles
- Provide access through implementation and enforcement of visitation rules to these sites
- Install stream flow warning system to advise of flash floods
- Use bicycles and valley shuttle. Allow walking-hiking (no private vehicles beyond visitor center)
- Install tool shed and compost toilet or Sanitoid in North Hālawā Valley. Construct small maintenance building in North Hālawā Valley (under viaduct near Hale o Papa)
- Preserve (stabilize, restore, reconstruct) and interpret sites
- Construct parking in Hālawā at entry to the valley at Hālawā Valley Road (30 parking stalls) for visitors
- Establish nursery to propagate native plant seedlings for out-planting in the valley
- Restore native species in North Hālawā Valley; establish program for the reforestation of native plants in North Hālawā Valley
- Construct support utilities in Hālawā to support interpretive programs
- Establish camping area, with composting toilets, for spiritual, religious, and cultural practice
- Prepare educational displays on freeway pillars telling real story of the destruction brought about by H-3. Interactive displays – audio visual
- Construct education Center in North Hālawā Valley at Bridge 17, program facility to accommodate 50-60 persons in classroom environment utilizing Hālawā (classroom) type structures with electricity (solar)

2.4 Brief Description of Vision for Stewardship Work

In 1997, members of NKNKHI began clearing dense-weeds and brush from Native Hawaiian cultural and sacred sites, clearing the land to build Hawaiian gardens, and advocating for the protection of these sites. Today, North Hālawā Valley serves as a healing and learning center through the preservation of traditional cultural practices. This valley is observed as a healing place for the mind and body, a place for learning and a place of worship. Practitioners, students, and visitors are immersed into an environment that is healing itself through the efforts of volunteers working on restoring native vegetation, stabilization, and restoration of cultural sites. Knowledge and education are promoted through the teaching of traditional and contemporary practices on the land.

Modest facilities will be designed and built to support the work being performed. Most of the facilities identified in the original IDP are not being pursued as limited funds remain from HLID to pursue those efforts. However, HLID does have some funds available for limited improvements that could support stewarding activities as they build capacity for programmatic expansion. HLID will work with the Stewards to optimize how best to utilize these funds for improvements.

2.5 Archaeological Features Treatment Assessment

NKNKHI will work with HDOT to prioritize actions to repair, restore, and maintain the historic sites in the project area. HLID has provided the following treatment recommendations for site 50-80-10-2137 which has been included in the draft preservation plan and condition assessment prepared by HLID's contracted archaeologist and is currently under final review by SHPD. The following treatment assessment has been reviewed and revised to reflect the comments on preservation treatment expressed by the community and Stewards for site 2137.

An additional Treatment Assessment for site 50-80-10-2010 may be completed in collaboration with the site Stewards in the future should their capacity expand to properly preserve and/or rehabilitate features within this area. The process undertaken for public consultation on this HLID project began in 2002. The following Treatment Assessment has been reviewed and revised to reflect the comments on preservation treatment expressed by the community and Stewards for site 2137 and meets the requirements of Hawaii Administrative Rules (HAR) §13-277-3 (1).

The following Treatment Assessment subsections were written by HLID and have been directly borrowed from the draft preservation plan currently in-progress (Keala Pono Archaeological Consulting, LLC; Hālawā-Lulukū Interpretive Development Project, 2016). Details outlined here are subject to change pending HDOT and SHPD final approval of the document.

2.5.1 Treatment Assessment Definitions

The following definitions utilized in the Treatment Assessment are useful in understanding the preservation treatments proposed. They are based on the treatment standards of the National Park Service's Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, & Reconstructing Historic Buildings (National Park Service, 2017). These Standards are not exclusive to historic buildings as they may also apply to sites, structures, objects, and districts as long as they are eligible to be listed in the National Register of Historic Places.

Preservation

The act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. (National Park Service, 2017).

For the HLID project, preservation recommendations will include vegetation clearing, trail maintenance, and litter control. This method of preservation is in-line with the definition of "passive preservation" detailed in the 1987 MOA which calls for vegetation clearing and erosion control where needed to preserve features in their current condition. Additionally, Preservation is recommended for any feature requiring stabilization. Stabilization was previously considered a treatment guideline but was determined to be an integral part of the Preservation treatment. Furthermore, stabilization, defined as applying measures to reestablish the structural stability of a deteriorated property while maintaining the essential form as it exists today, is equally applicable to other treatments if circumstances warrant (National Park Service, 2017).

Rehabilitation

The act or process of making possible a compatible use for a property through repair, alteration, and additions while preserving those portions or features which convey its historical, cultural, or architectural values. (National Park Service, 2017).

This method of preservation is in-line with the definition of "active preservation" detailed in the 1987 MOA, which calls for the repair of damaged features, extensive vegetation clearing, and the creation of interpretive displays for educational purposes. Rehabilitation was primarily selected for certain features because it involves minimal repair work to allow for active re-use of the site features for education and cultural purposes.

From HLID's understanding, the Working Group desired to actively re-use the site for cultural purposes and education with minimal alterations and repairs as well.

Restoration

The act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period (National Park Service, 2017).

HLID will not be recommending Restoration as a treatment for any features in this assessment.

Reconstruction

The act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location (National Park Service, 2017).

HLID will not be recommending Reconstruction as a treatment for any features in this assessment.

2.5.2 Treatment Assessment Summary for Site 50-80-10-2137

The Treatment Assessment is presented for each selected feature in Tables 6–11 and is organized by site areas 1-6. These tables indicate which form of mitigation (treatment) is proposed for each feature, the level of intervention suggested, and notes on the surrounding vegetation. A brief text follows of the general area description and hazards, and notes on the justification for treatment recommendations. A summary of treatment actions and a map of each area indicating features slated for Rehabilitation is included for reference.

Some features in each area were not selected for treatment by the community and have been excluded from this assessment. Plant names referred to in the assessment are listed in Table 12. A map of the walking trail is provided in Figure 16 and the GPS trail coordinates are provided on Table 13.

Additionally, an expert in Uhau Humu Pōhaku (Hawaiian Drystack Masonry) was separately contracted by HLID to provide a Mason Treatment Recommendations report (2019) in consultation with the Stewards, which is provided in the Appendix. The report also includes a Botanical Resource Management Survey and Assessment for the site which was intended to identify and make recommendations on plant species removal around each feature recommended for treatment. It should be noted that these reports were done independently from the archaeology assessment and any discrepancies are noted in the “Mason Treatment Recommendations” for each area.

As HLID notes in the 2019 Mason Treatment Recommendations Report (Appendix F), Fields Masonry interpreted the features and made treatment recommendations based on the expertise and perspective of a Hawaiian cultural master mason which will naturally differ from how an archaeologist interprets and thereby designates a feature. Regardless of the specific designation or interpretation assigned by archaeologists or other professionals, the method of “treating” a Hawaiian rock wall will incorporate components of *preservation* and *rehabilitation* as part of the process. Any work that required stabilization or less was designated as *preservation*. If more work and material were recommended, it was designated *rehabilitation*.

For the purposes of this section, and in alignment with native Hawaiian ecological knowledge systems, this treatment assessment uses the following definitions throughout. Additional Hawaiian terms are used and defined within the text as-needed. Further discussion, and a complete glossary of native Hawaiian terms used by experts in Uhau Humu Pōhaku can be found in the Mason’s report.

Hakahaka Technique of wall construction, freestanding.

Hakahaka (fill) Rocks, 6" x 6" in size or smaller; used for fill of dry masonry wall.

Hakahaka ('ili'ili) Rocks, 2" x 2" or smaller in size and used on the cap of a wall.

'ili'ili Small stones 2" x 2" used to top a wall.

Kīpapa Technique of wall construction used in terracing where only one side of the wall is finished. The other side is usually built into an earthen embankment.

Niho Foundation stone at base of hakahaka and kīpapa wall.

One-man rock Approximately 12" x 12" in size. One man can comfortably carry with no help.

Pōhaku Rock, stone.

To conclude the Treatment Assessment section, a Long Term Preservation Maintenance discussion is provided along with:

1. General Guidelines for Rehabilitation Work;
2. Dry-Stack Repair Work Guidelines;
3. Archaeological Monitoring Guidelines;
4. Vegetation Clearing Guidelines; and
5. Disposal of Greenwaste Guidelines. These subsections describe what tools will be used, how, and when. They also describe general processes for handling of pōhaku, and disposing of greenwaste.

2.5.2.1 – Site 2137, Area 1

Table 6. Site 2137, Area 1 Treatment Assessment
 Site #: **50-80-10-2137** Bishop Museum #: 50-Oa-B01-75

Feature	Description	Possible Function	Estimated Age	Treatment	Level of Intervention	Vegetation/Notes
50	Terrace	Habitation	*1649—1823AD (taken from Feature 50.07, fill layer TU J32)	Preservation	Clear invasive veg and clear rocks from trail	Large guava growing out of wall and crossing site path. Palm and basket grass around wall. Small kukui saplings in the area. Large rubber tree growing near corner of the wall.
51	Terrace	Habitation	Modern (nearby test unit; likely mixed/disturbed soil)	Preservation	Clear invasive veg and clear rocks from trail	Palm and basket grass around wall. Smallkukui saplings in the area.
52	Terrace	Habitation	*1288—1396 AD (Feature 52.01, nearby imu, TU J14)	Preservation	Clear invasive veg and clear rocks from trail	Basket grass prevalent in area. Nearby hala trees could be impacting the walls.
53	Enclosure	Habitation	Undetermined	Rehabilitation	Re-erect and re-align rocks	Wall surrounded in short basket grass. Some lauau growing around portions of the wall. Rubber, guava, and avocado trees in the cleared area close to the wall. One allspice tree nearby.
54	Terrace	Habitation	Modern	Preservation	Clear invasive veg and clear rocks from trail	Many opiuma and ti trees growing out of and around wall. Basket and palm grass around features. A broken tall guava tree nearby. A banyan tree and guava trees are growing out of portions of the wall.
55	Rock Concentration	Shelter	Modern	Preservation	Remove Vegetation	Hala trees nearby could be impacting mound. Maiden ferns prevalent in area. Some lauau present.
56	Depression (imu)	Fire feature	Modern	Preservation	Remove Vegetation	Many guava trees covered with vines growing out of depression.

Note: *Radiocarbon date

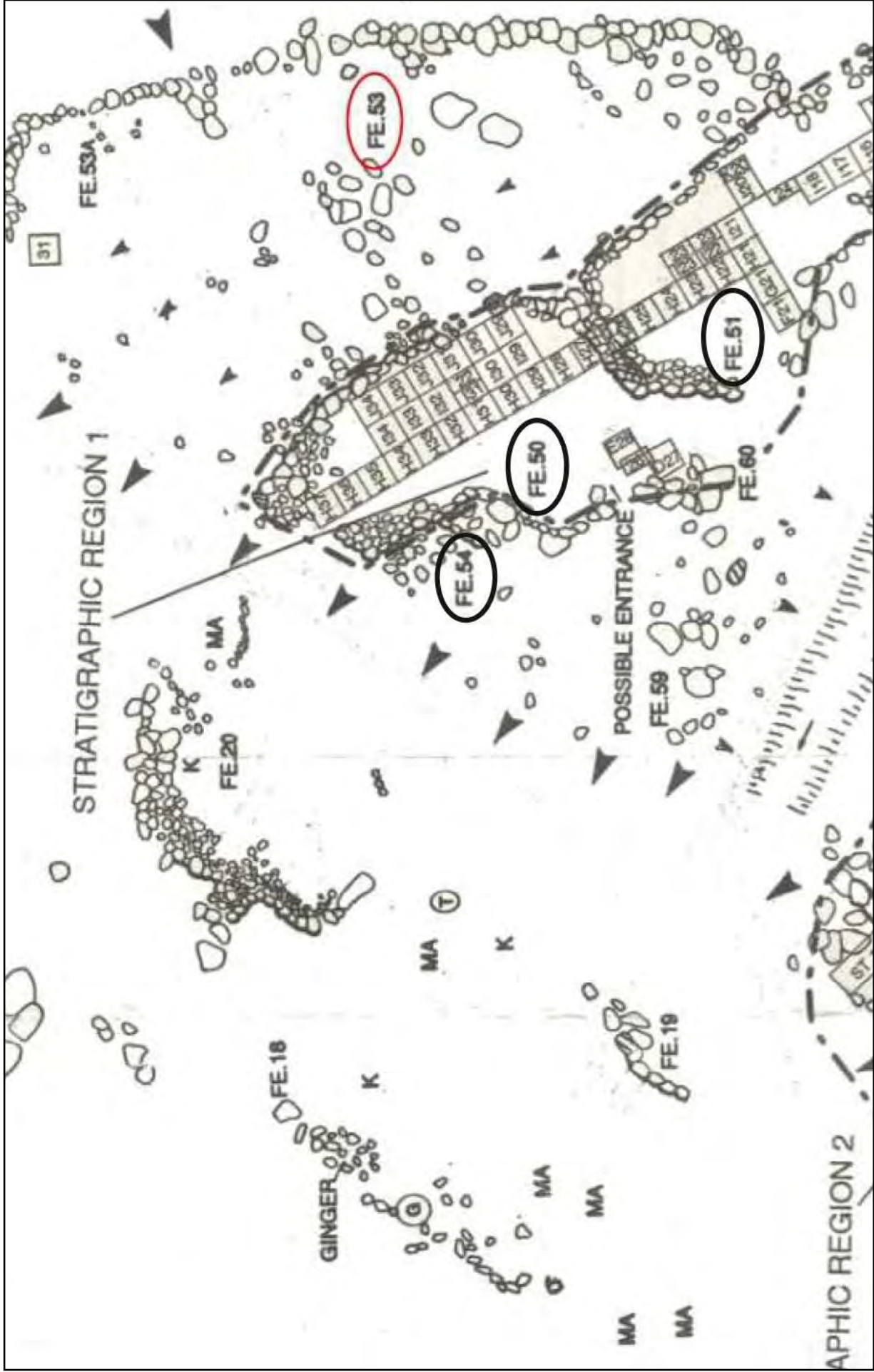


Figure 4. Site 2137 Portion of Area 1. The labels of features slated for rehabilitation are circled in red; features slated for preservation only are circled in black (Original Map: Hartzell et al. 2003:Volume 2c Site 2137: Figure 2)

Area 1 - Description and Hazards

The area is on a slight incline with some noticeable erosion in the areas closest to the mountain slope. The area is under the cover of a tree canopy which provides significant shade inhibiting the growth of the more aggressive invasive grasses (i.e., guinea grass) that are prevalent in other areas of the site. This also creates a potential hazard as trees or branches tend to fall on archaeological features. The Working Group views this area as quite special, and Stewards do not take all visitors to Area 1.

Most of the time, the area around Feature 53 is easy to traverse; however, it can be difficult during or after heavy rain. Typically, site tours and visitors do not travel past Feature 53. At one time prior to the construction of the Interstate, the area around Feature 53 provided a good visual vantage point of Site 2010 across the stream. It is believed that a trail to Site 2010 leading from Feature 53 existed prior to the erosion of Area 6. Some members of the community attribute the erosion to alterations in the natural stream flow caused by a large fallen boulder and the introduction of the Interstate and access road.

The terrain past Feature 53 is steeper and littered with many loose rocks that have eroded down from the mountain slope. These loose rocks make it hard to find good footing when walking over the area. Features 57 and 58 could not be relocated and were thus not part of the Treatment Assessment. It is likely that increased erosion over the years washed the features away or buried them in rocks and mud. The area past Feature 53 could benefit from some type of long-term erosion control program.

Area 1 - Notes on Construction and Rationale for Intervention Recommendations

Features 50, 51, 52, 54, and 56 are recommended for preservation only. Feature 53 is the only feature recommended for rehabilitation in this area (Figure 4). This walled enclosure clearly marks the boundary of where the site trail ends and where visitors should not venture further. In this sense, rehabilitating the wall provides a clear boundary demarcation and promotes safety for site visitors. The wall is in good shape and only requires minor rock realignment, re-erecting, and some filling.

Wall construction appears to be made of a single line of large erected basalt stones (pōhaku). A few smaller stones (hakahaka) were used to fill in the gaps of these large stones. The large stones do not appear to have been stacked, but simply moved in place, erected, and leveled for evenness. The height of the wall does not appear to exceed more than 3 feet. Hawaiian dry-stack construction techniques that utilize foundation (niho) or cap (pōhaku pāpale) stones appear to be absent. Fallen stones in the area should provide an abundant source for wall repair. Although a large Banyan tree is growing out of a portion of Feature 53, the community does not want trees in this area removed because of the shade they provide. Dead branches around the area should be removed when needed to allow for better visibility of features. All of Area 1 would benefit from dead branch removal and tree maintenance (i.e., trimming branches).

Loose rocks on the trail should be moved to the side or put in designated piles to make walking in the area safer for site visitors. Many of the features are covered with leaf debris, vines, moss, and soft grasses. The removal of invasive plants in the area is recommended. Although there are some non-native trees in the area (i.e., guava, palm), the community likes the amount of shade they provide. They worry that removal of these tall shady trees will cause invasive grasses to grow faster and at a rate that may be difficult to manage. The features recommended for vegetation clearing should be regularly cleared of invasive plants, leaf debris, and managed as part of long-term maintenance of the site.

The area around Feature 56 should be flagged so that people do not accidentally fall in this depression. Site Stewards should be aware of the depression and warn people that are visiting and/or touring the site. The feature would benefit from careful vegetation maintenance. Although the feature is listed as a possible imu (underground oven), re-use of the feature as an imu is currently unlikely as site use restrictions by the landowner, HDOT, do not allow on-site fires.

Summary of Preservation Actions for Area 1

- Invasive vegetation clearing for preservation features
- Tree monitoring and maintenance (trimming, removal of fallen trees)
- Remove loose rocks from trail and monitor trail regularly
- Realign rocks and re-erect rocks for rehabilitation Feature 53
- Clear dead branches and unwanted vegetation around Feature 53 periodically
- Place flags around Feature 56 for safety

Mason Treatment Recommendations

The Mason's Report recommends rehabilitation of Features 50, 51, 53, & 53a, however, Feature 53a was not included in this preservation plan table. Refer to Appendix B of this report to review details of Mason's recommendations for Area 1, including the suggested removal of all invasive species and specific trees near features identified in the Botanical Resource Management Survey & Assessment (Appendix F - Mason's Report Appendix B)

2.5.2.2 – Site 2137, Area 2

Table 7. Site 2137, Area 2 Treatment Assessment
 Site #: **50-80-10-2137** Bishop Museum #: 50-Oa-B01-75

Feature	Description	Possible Function	Estimated Age	Treatment	Level of Intervention	Vegetation/Notes
27	Enclosure	Ritual	Nineteenth Century	Preservation	Tree removal	A large fallen banyan tree lies on top of a majority of the feature. The surrounding area also has some gun powder trees and dead tree branches that could threaten the stability of the wall.
28	Enclosure	Food Preparation	Pre-Contact	Rehabilitation	Restack/re-erect/realign rocks and tree removal	A large common guava tree is growing out of a portion of the wall. Many mountain apple trees are nearby; some could be growing out of the wall. A couple of kukui trees are growing out of the wall. Dead tree trunks are on rocks. Gun powder trees are close to the wall. Palm grass is prevalent within the enclosure. Various non-native vines are on rocks.
31	Terrace	Agriculture	Pre-Contact	Preservation	Tree removal	Many gun powder trees and dead tree branches in the area.
36	Enclosure	Habitation	Pre-Contact	Rehabilitation	Erect large fallen stones	Several avocado and kukui trees growing out of the wall. Tall ti leaf trees nearby. Some maiden ferns, palm grass, and various vines around rocks
46	Alignment	Trail Border	Pre-Contact	Rehabilitation	Restack/re-erect/realign rocks and tree removal	Area covered mostly with palm grass. Two large gun powder trees growing out of wall.
47	Mound	Fe 36 Wall Fall	Pre-Contact	Rehabilitation	Add to complete Fe 36 wall	Rocks covered with palm grass and various vines.
48	Terrace	Habitation/ Agriculture	Historic	Preservation	Tree Removal	Rubber trees growing out of the walls. One palm tree in close proximity to the wall.
49	Terrace	Soil Retention	Historic	Preservation	Tree removal	Many gun powder trees and dead tree branches in the area.
63	Petroglyphs		Pre-Contact	Preservation	None	Several tall ti plants around stone.

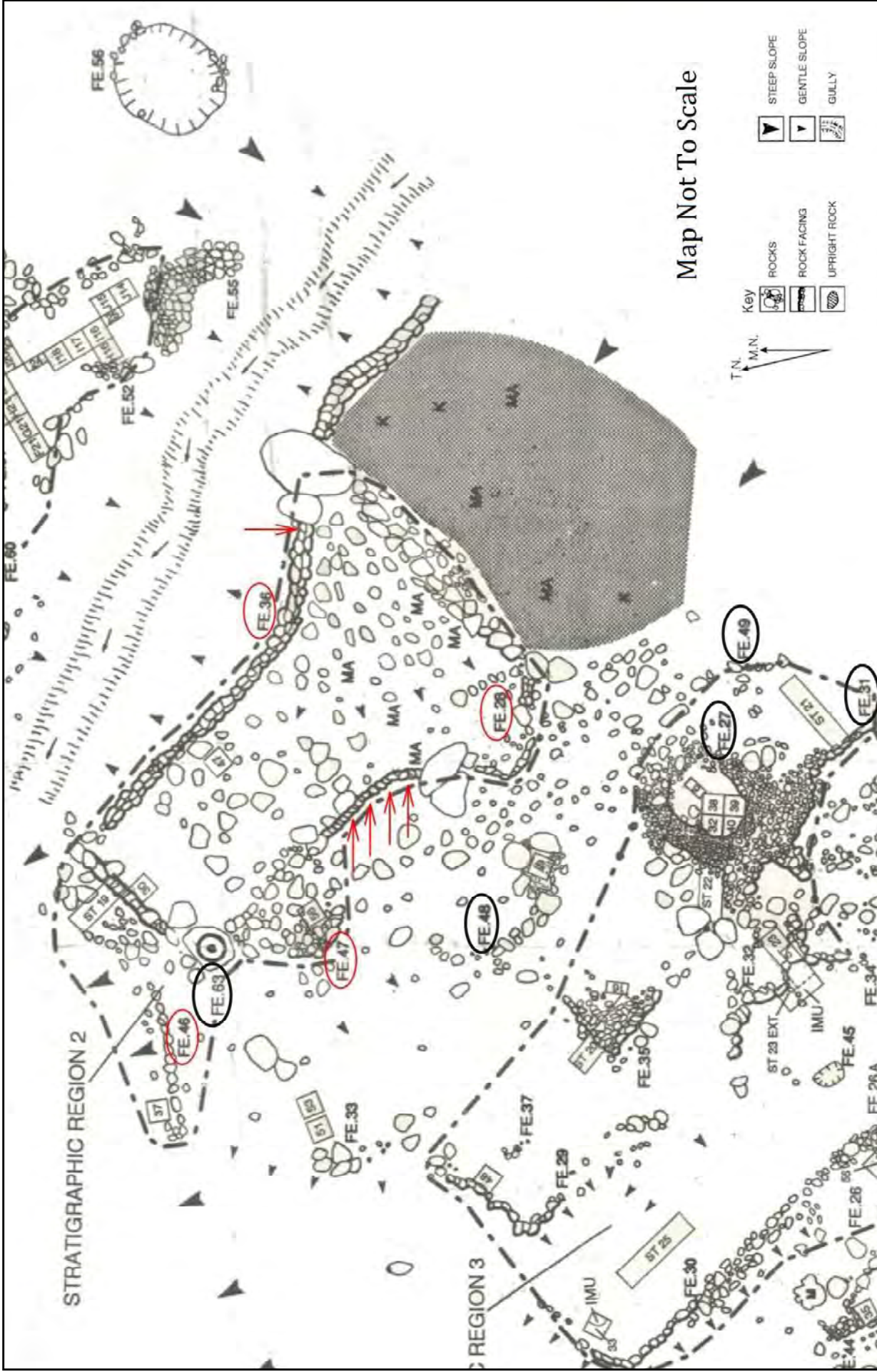


Figure 5. Site 2137 Portion of Area 2. The labels of features slated for rehabilitation are circled in red; features slated for preservation only are circled in black. Red arrows indicate where only a specific portion of a feature is to be rehabilitated (Original Map: Hartzell et al. 2003:Volume 2c Site 2137: Figure 2)

Area 2 - Description and Hazards

This area is on top of a hill that is slightly raised above the rest of the site. The slope gradient is gradual, so the ascent can be done with little effort though many scattered stones make traversing some parts of the area difficult. There is also a gully on the northernmost portion of the area that is littered with many loose rocks. Sometimes erosion and slope wash after a heavy rain clutter the site walking trail in the gully with loose rocks.

In order to reach Area 1, the gully in Area 2 must be crossed. A strong effort should be made to clear loose rocks from the trail. Large kukui trees, tall palms, and some mountain apple trees are also in the gully. These trees should be monitored. The palm trees sometimes rain dead leaves and branches on nearby features in Area 1. A noticeable tree canopy begins near Feature 28 and continues on over the gully and Area 1. This effectively limits the amount of sunlight in the area and reduces the growth of invasive grass.

The most noticeable hazard in Area 2 is a large fallen banyan tree on top of Feature 27 (Figures 6-7). The feature is closer to the mountain slope and in an area with many loose rocks. The rocks were likely deposited from erosion of the mountain slope over time. Some of the loose rocks are difficult to see and hidden by vegetation. These loose rocks make it hard to find a good footing when walking over the area. These rocks should be removed from the trail and placed in designated piles or areas.

Feature 27 also seems to help effectively block the lower portion of the area from erosion deposition. The remaining banyan tree trunk should be cut into pieces and hauled out of the site. All tall trees in the area should be monitored. Sometimes, these tall trees do fall and block portions of the trail. Protocols should be in place to remove these hazards as needed.

Area 2 - Notes on Construction and Rationale for Intervention Recommendations

Features 27, 31, 48, 49, and 63 are recommended for preservation only. Features 28, 36, 46, and 47 are slated for rehabilitation (Figure 5). The function of Feature 36 enclosure is listed as either habitation or religious. The bottom wall portion of Feature 47 near the petroglyph rock (Feature 63) should be left alone since the community views it as a sensitive area. Trees that are growing out of the Feature 28 wall should be removed to prevent further deterioration of the feature.

Corners of the Feature 36 enclosure are anchored with large kihi (corner) stones. These large kihi stones do not appear to have been moved or placed. The enclosure walls were then built in a straight line around these larger in situ kihi stones in a dry-stack (non-mortar) fashion. Hawaiian Mason's refer to these types of walls as a pā (a wall that is straight and without turns and angles).

For these types of walls, usually pōhaku niho are set in the ground as a footing for the bottom row of a wall. The niho stones would be placed at a slight inward tilt so that the stones built over the niho stones would slant inward, thus allowing gravity to keep the structure together (Hui Ho'oniho 2012). Although it is difficult to see the niho stones, it looks like these base stones are present.

Feature 36, is only recommended for the re-erection of some of the large stones in the Northeast corner that have fallen near the corner kihi stone. An archaeological test unit nearby may have contributed to the fall of these stones in the corner. Feature 36 appears to have more stacked stones as opposed to the many larger erected stones of Feature 28. Like Feature 28, base type niho stones appear to be visible at the base of the wall. The Working Group views the area around Feature 36 as sensitive and only wishes for the large stones of the feature near the kihi to be re-erected to help stabilize the current condition of the wall and improve safety.

The wall of Feature 28 was then constructed of a single line of large erected stones over the niho stones. Gaps appear to be filled with hakahaka of various sizes. This is quite different than the enclosure wall Feature 36, which appears to be double-stacked. Hawaiian Mason's use the term double-stacked to describe a wall with hakahaka in the center, with kūkulu on the outside. For Feature 28, there is no internal hakahaka for double stacking as in Feature 36.

All walls of the enclosure in Area 2 are no more than 4 feet in height. For Feature 28, vertical stacking appears to have been only necessary in areas where smaller erected stones needed more height to level the wall. Modern Mason's today may use batter boards and strings to aid in maintaining horizontal and vertical levels for wall evenness. Hawaiian Mason's will usually finish the tops of these types of walls with pōhaku pāpale or cap stones. It is difficult to say if these types of stones were present because a lot of the erected stones have been tilted. The pōhaku pāpale may have fallen off and become part of the rubble now at the base of the walls.

Basalt rocks for these features were probably readily available and collected from the alluvial and colluvial rocks that litter much of the area, including the streambed. Fallen stones in the area should provide an abundant source of basalt rock for wall repair. The structure is on an elevated hill; thus, the restacking, re-erecting, and re-alignment of rocks should be done in a way that eliminates possible rock fall or sliding.

Arguably, the construction of Feature 28 is the simplest wall of the enclosure. Repair of this feature would help restore some of the enclosure's visual prominence, improve safety, and preserve the feature from further deterioration.

Knowledge of basic masonry and Hawaiian construction techniques should be a requisite for those attempting to repair the wall. The rehabilitation process should also encourage education about Hawaiian dry-stack techniques and the overall understanding of a multi-component type site (religious, habitation, farming).

Feature 47 is listed as a mound. The mound is no more than 3 feet high. The opening to the enclosure would be much more pronounced if the eroded rocks were stacked on the mound neatly or used to create a pavement. Or, the stones could be used to construct an ahu (altar) or mock wall as a form of training in Hawaiian dry-stack masonry techniques. Alternatively, the mound could be left alone.

Feature 46, an alignment of stones close to a cliff that possibly functioned as a trail border, should be repaired to serve as a visual boundary marker that warns visitors away from the cliff. Missing stones from the alignment may have slid down the cliff. For this reason, the part of the alignment facing the cliff may need to be bolstered and monitored regularly. The low height (not more than 2 feet high) alignment is made up of a single line of large erected stones. This construction is very similar to Feature 53 in Area 1. Repair would consist of re-erecting the stones, adding stones where needed, and filling the gaps with smaller hakahaka type stones. The tall grass near this feature should be cut and the gunpowder tree removed.

There are many large trees (dead and alive) in the southern portion of the area impacting the five features slated for preservation only, Features 27, 31, 48,49, and 63. These trees should be removed to stabilize their current condition and reduce hazards to site visitors.

Summary of Preservation Actions for Area 2

- Remove trees around Features 27, 31, 48, and 49
- Remove large fallen banyan tree on Feature 27
- Tree monitoring and maintenance (trimming, removal of fallen trees) in Area 2
- Remove loose rocks from trail and monitor regularly
- Re-erect large stones, restack missing rocks, and re-align rocks for rehabilitation Features 28 and 46
- Tree removal for Features 26 and 46
- Re-erect large fallen stone near Feature 36
- Create pavement from Feature 47 stones; or remove stones from enclosure entrance and create pile
- Clear invasive grass around Feature 46 (maintain regularly)

Mason Treatment Recommendations

The Mason's Report recommends rehabilitation of features 27, 28, 31, 36, 46, 47, & 49. Feature 48 is recommended for preservation. Refer to Appendix B of this report to review details of Mason's recommendations for Area 2, including the suggested removal of all invasive species and specific trees near features identified in the Botanical Resource Management Survey & Assessment (Appendix F - Mason's Report Appendix B).



Figure 6. Large fallen banyan tree on Feature 27.



Figure 7. Fallen banyan tree on Feature 27 (with scale bar).

2.5.2.3 – Site 2137, Area 3

Table 8. Site 2137, Area 3 Treatment Assessment

Site #: **50-80-10-2137** Bishop Museum #: 50-Oa-B01-75

Feature	Description	Possible Function	Estimated Age	Treatment	Level of Intervention	Vegetation/Notes
15	Terrace	Agriculture	*1638—1934 AD (Fe 15.01)	Rehabilitation	Restack missing rocks, rocks may need to be removed temporarily for tree removal	A kukui nut tree is growing out of a portion of the wall. Many coconuts from a nearby tree are accumulated at the base of the wall. Most of the wall is covered with various vines.
16	Terrace	Agriculture	Historic (1800s to 1900s)	Rehabilitation	Restack missing rocks, rocks may need to be removed temporarily for tree removal	Coconuts from a nearby tree accumulate at the base of the wall. African tulip growing out of a portion of the wall. Some of the wall is covered with guinea grass and small vines.
29	Terrace		*1465—1685 AD (TU 48, Layer VII)	Rehabilitation	Restack missing rocks, repair gaps	Guinea grass, papaya tree, and some African tulip trees present around feature.
30	Terrace	Habitation	AD 1700 to early 1900s	Rehabilitation	Restack missing rocks, repair gaps	Three gun powder trees, one mango tree, an African tulip tree, and mountain apple trees around feature. Abundance of ferns and paka.
32	Terrace	Agriculture	Historic/Pre-Contact	Preservation	Vegetation removal only	Hala, gun powder, olena, and noni trees present.
33	Terrace		Pre-Contact (2 periods of occupation)	Preservation	Veg clearance and tree removal	Gun powder and thimbleberry trees present.
34	Terrace	Agriculture	Historic/Modern	Preservation	Veg clear and tree removal	Many banana trees and some 'ulu trees present.
35	Terrace		1700 AD to early 1900s	Rehabilitation	Restack missing rocks, repair gaps	Rubber trees, noni, and 'ulu trees present.
37	Pit	Campfire	Historic/Modern	Preservation	Vegetation Clearing Only	Covered in Guinea Grass (hard to see)

Note: *Radiocarbon date

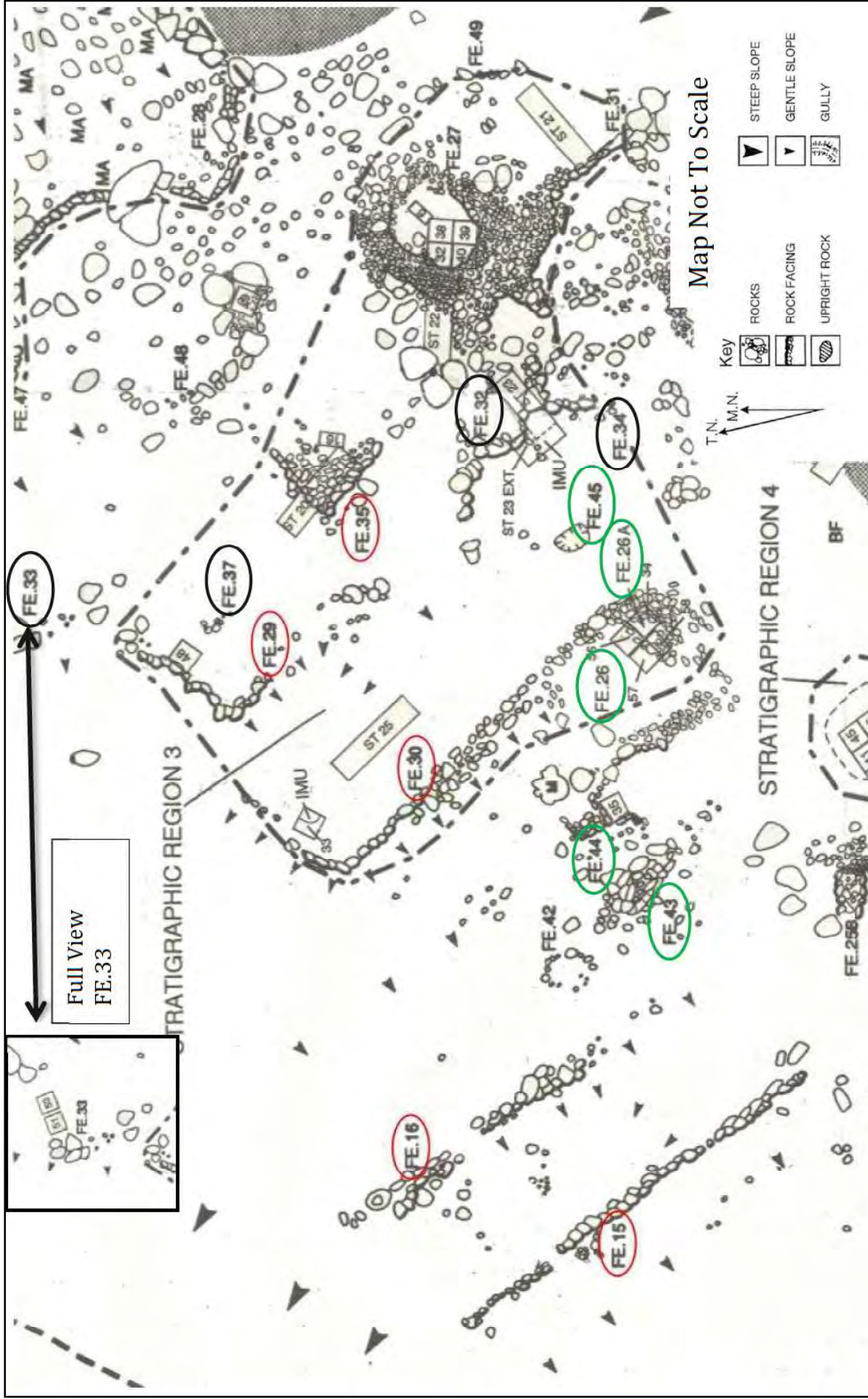


Figure 8 Site 2137 Portion of Area 4. The labels of features slated for rehabilitation are circled in red; features slated for preservation only are circled in black. Features 26, 26A, 43, 44, and 45 (preservation only) circled in green are in Area 4 (Original Map:Hartzell et al. 2003:Volume 2c Site 2137: Figure 2)

Area 3 - Descriptions and Hazards

The intersection of Area 4 and Area 3 marks the beginning of the site Walking Trail. Typically, visitors are led by Stewards around the site via this trail. Most of the Walking Trail in Area 3 is well-manicured low cut grass. The area is mostly flat, but does ascend gradually as one approaches Area 2 of the site. As one ascends to Area 2, three terrace walls are passed (Features 15, 16, and 30) that some community members refer to as the “3 levels of the Hale o Papa.”

The trail navigates around the stone archaeological features or through physical breaks in the stone walls/terraces. Although the walls may have been continuous at one time, the community believes the gaps allow for better access throughout the area. Many portions of terrace walls (Features 15, 16, 29, and 30) are clearly visible from the trail. However, portions of these walls are covered in tall guinea grass or vines.

Features 32, 33, 34, 35, and 37 are completely engulfed in tall guinea grass and hidden from view. Tall trees around Feature 34 should be removed for safety and protection of the feature. The tall grass also hides a couple of small copper pipes sticking out of the ground near Features 15 and 16. Community members suggest that the pipes may have been used for tents in the past. These pipes should be removed for safety.

Portions of Features 15 and 16 are usually cluttered with fallen coconuts that fall from the coconut tree that sits between these two features. The coconuts should be regularly harvested from the tree to minimize fall damage to the walls and possible injury to visitors. There is also an old trail that leads to the back of Area 4 that starts near Feature 30 of Area 3. However, most of it is covered in invasive grasses. The community would like to see this old trail opened so that it may be reused in the future.

As one progresses through Area 3, it is easy to notice many types of fruit trees and native plants. Some of these fruit trees include: banana, mango, guava, 'ulu (breadfruit), and noni. These fruits are harvested by Stewards and site visitors. Although many of the fruit trees are currently not directly affecting the archaeological features, the areas near the features should be regularly inspected for new saplings as part of some kind of periodic condition assessment of the site. Saplings that pose a risk could be removed and planted elsewhere on the site.

Stewards and visitors will also occasionally plant native plants or medicinal plants mostly within Area 3. The site as a whole is viewed by the community as a place of healing; thus, it is not surprising to see the replanting of native and medicinal plants in the area. The healing aspect is also part of the vision established for the area in the 2008 Interpretive Development Plan. However, the plantings are usually not recorded. In the future, it may be beneficial to record the introduction and location of plants in some kind of planting log book. The Working Group does not wish to install plant placards or signs. A log book will also be valuable to vegetation removal efforts so that these plants are not inadvertently removed.

On the archaeological maps, Area 3 is also noted to extend up the mountain slope to a cave. However, visitors typically do not access the area beyond Feature 34. Community members showed HLID staff a trail that leads to the cave and upper areas that is covered by tall invasive grasses. This trail also connects to the “old trail” near Feature 30. The community wishes to have this grass cut and maintained to make the trail visible to those who want to access the upper areas.

The area near the mountain slope is also cluttered with many loose rocks that have eroded down from the mountainside over time. These rocks should be removed from the trail. A large natural outcropping and gully at the base of the mountain slope effectively serves as an erosion barrier that prevents Areas 3, 4, and 6 from being impacted by erosion.

Area 3 - Notes on Construction and Rationale for Intervention Recommendations

Features 32, 33, 34, and 37 are recommended for preservation only. Features 15, 16, 29, 30, and 35 are recommended for rehabilitation (Figure 8). Features 15, 16, and 30 are the highest priority rehabilitation features of the site since the community feels the walls define the “3 levels of the Hale o Papa.” Feature 35 is also held in high regard as the community believes that the area one time hosted an encampment during the Interstate H-3 protest.

However, out of all the terraces, Features 35, 30, and 29 are in need of the most work as it appears that most of their rocks are jumbled together in a pile. The piles are almost not recognizable as a terrace. Perhaps the rocks were concentrated in this pile from gradual erosion. However, unrecorded human modifications may also be a contributing factor to these poorly preserved features. These three terraces appear to be L-shaped on archaeological plan view maps while Features 15 and 16 are straight lines. Missing rocks for these terrace features should be restacked and gaps in the wall should be repaired.

In the archaeology reports, most of these walls are listed as terraces with an agricultural function. Feature 30 and, within it, Features 29 and 35 is listed as a habitation terrace. This probably explains why their construction is quite different from the habitation type enclosure walls of Areas 1 and 2. These walls in Area 3 were more designed to retain raised dryland terraces. This creates a natural sense of rising to another “level” as described by the community.

Construction of the walls appears to be low height dry-stack (non-mortar) retaining walls. The walls range between 2.5 to 3.5 feet in height. Hawaiian Mason’s today refer to these types of walls as kīpapa style. Typically, hakahaka are built up around the raised soil terrace. Niho are placed flat in the ground and buttressed against the bottom of the raised soil terrace. Smoother or flat type stones known as pōhaku alo will be placed over the niho stones and over the hakahaka stones at an angle to form the outer part of the wall and provide a nice facing.

Typically, the pōhaku alo are angled at 22°. However, the terraces in Hālawā appear to be square, 90°, angles. Pōhaku alo are usually medium to large type stones that have much more mass than the hakahaka. It appears that most of the pōhaku alo from the Area 3 features have fallen away, leaving the hakahaka exposed or spilling out. The hakahaka should be gathered and reinstalled. The pōhaku alo should then be placed over these rocks.

McElroy and Eminger (2011) note that flat and wide cap stones are sometimes placed on the tops of these terrace walls. Although these cap stones were not observed on the terrace features, they could have toppled over or been removed at some time in the past.

Typically, Mason’s will fit the stones together and angle them in a manner that locks the stones in place. The ends of rocks are overlapped and not simply stacked on top of each other. Hawaiian Mason’s refer to these stone locking techniques as ho’opi-ha. Modern Mason’s today may use batter boards and strings to aid in maintaining horizontal and vertical level to make the pōhaku alo even. Knowledge of these techniques are essential to the proper rehabilitation of these features.

Fallen stones in the area and the outcroppings should provide an abundant source for wall repair. The nearby gunpowder and African tulip trees should be monitored or cut to minimize possible future impacts to these features. Feature 16 may have to be partially deconstructed to allow for the removal of the African tulip tree growing out of a portion of the wall. Feature 15 may have to be partially deconstructed to allow for the removal of the small kukui tree growing out of a portion of the wall.

Although the coconut tree near Features 15 and 16 does not appear to impact the integrity of the walls, the coconut fruits should be regularly harvested and monitored to minimize fall damage to the walls (Figure 10). All of Area 3 would likely benefit from tree monitoring and periodic dead branch removal. All other area features (32, 33, 34, and 35) should be cleared of vegetation regularly and managed as part of long-term maintenance of the site. Removing the vegetation would allow features to be more visible. Native or medicinal plants that pose a risk to the stability of any feature could be transplanted elsewhere. Large trees noted around Feature 34 should be removed for protection of the feature and general safety in the area.

The rehabilitation process should also encourage education about Hawaiian drystack techniques and the overall understanding of a multi-component type site (religious, habitation, farming). Rehabilitating these terrace features may also enable active farming in the area.

Summary of Preservation Actions for Area 3

- Vegetation clearing and tree removal around Features 32, 33, and 34
- Vegetation clearing for Feature 37
- Tree monitoring and maintenance (trimming, removal of fallen trees) in Area 3
- Restack missing rocks (kīpapa style) for rehabilitation Features 15, 16, 29, 30, and 35
- Remove pipes in ground near Features 15 and 16
- Regularly monitor coconuts in tree near Feature 15 and harvest as necessary
- Remove loose rocks from trail and monitor regularly
- Create a planting log

Mason Treatment Recommendations

The Mason's Report recommends rehabilitation of Features 15, 16, 29, & 30. Features 33, 34, & 35 are recommended for preservation. Refer to Appendix B of this report to review details of Mason's recommendations for Area 3, including the suggested removal of all invasive species and specific trees near features identified in the Botanical Resource Management Survey & Assessment (Appendix F - Mason's Report Appendix B).



Figure 9. Fallen coconuts around Feature 15.

2.5.2.4 – Site 2137, Area 4

Table 9. Site 2137, Area 4 Treatment Assessment

Site #: **50-80-10-2137** Bishop Museum #: 50-Oa-B01-75

Feature	Description	Possible Function	Estimated Age	Treatment	Level of Intervention	Vegetation/Notes
1	Rock Concentration	Refuse Deposit	Historic Use (no excavations done)	Preservation	Vegetation removal only	Some tall guinea grass and wauke in the area.
3	Circular Enclosure	Chicken Coop	Modern (1900s) (no excavations done)	Preservation	Vegetation removal only	Some clusters of red ti leaf trees and 'a'ilii'. One 'awapuhi and uki plant. Small amounts of tall guinea grass around the feature.
13	Cobble/Mortar/ Brick Structure	Portuguese Oven	Modern (1900s)	Preservation	Veg removal; construct replica nearby	Small saplings of wauke and some ferns growing in center of oven. Some moss coverage over the top half of oven. African tulips and opiuma saplings around the oven.
14	Terrace	Habitation	Modern	Rehab and Preservation	Restack a portion of the wall near trail; vegetation clearance for remainder of the wall	One African tulip, noni tree, some wauke, and one palm tree should be monitored for potential impact to the wall. Small amount of maiden ferns. Various vines on rocks should be removed. Some of the grass could use trimming. One large williwi tree near wall (roots do not appear to be harming the wall).
25	Terrace	Habitation	Modern	Preservation	Veg clear and crop small loose rocks	Area covered with croton, guava, ardisia and banana trees. Guava tree growing through a portion of the wall. Large ardisia in close proximity to the wall.
25b	Pavement	Walkway	Modern	Preservation	Veg clear and crop small loose rocks	Gun powder, palm, croton, guava, ardisia, and rubber trees present around the feature. Saplings of African tulip and opiuma trees also present around feature.
26	Terrace	Habitation	Historic/Pre-Contact	Preservation	Veg clear and tree removal	Hō'io ferns prevalent in the area. One ardisia tree and papaya tree (near Feature 43 as well).
26a	Enclosure	Burial	1700 AD to early 1900s	Preservation	Veg clear and tree removal	Olena, noni tree (variegated), owi plant present.

2.5.2.4 – Site 2137, Area 4

Table 9. (Continued)

Feature	Description	Possible Function	Estimated Age	Treatment	Level of Intervention	Vegetation/Notes
40	Terrace	Soil Retention	Not Provided	Rehabilitation And Preservation	Restack a portion of the rocks (front facing only); clear vegetation	Rubber tree (1 ft. diameter) and African tulip saplings. Large kukui tree and four small banyan trees in the area should be monitored for safety. Rocks covered in palm grass, sweet potato, and honohono near Area 5.
41	Terrace	Habitation	Modern (1900s)	Preservation	Veg clear and crop small loose rocks	Area covered with banana trees and one royal palm.
43	Mound	Agricultural Clearing	Not Provided	Preservation	Veg clear and tree removal	A couple of large African tulips are impacting the stability of the wall. Large loulou in close proximity to the wall.
44	Rock/Mortar Platform	Walkway	Modern (1900s) / Pre-Contact	Preservation	Veg clear and tree removal	Hōio ferns prevalent in the area. One ardisia tree and papaya tree.
45	Depression	Not Determined	Modern (1900s)	Preservation	Veg clear and tree removal	A couple of guava trees in the area.

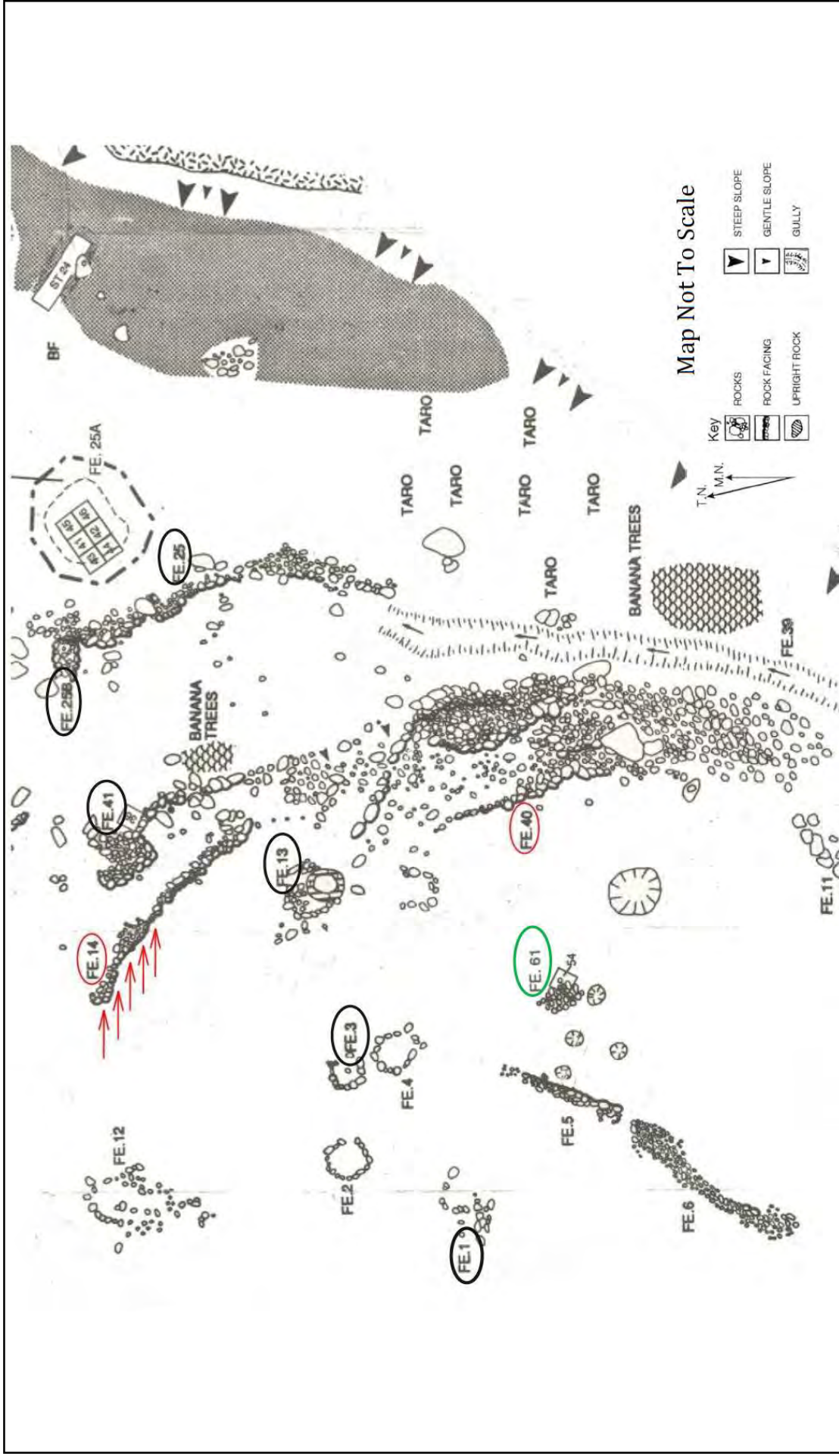


Figure 10 Site 2137 Portion of Area 4. The labels of features slated for rehabilitation are circled in red; features slated for preservation only are circled in black; feature 61 circled in green is part of Area 5. Red arrows indicate where only a specific portion of a feature is to be rehabilitated. The missing features 26, 26A, 43, 44, and 45 (preservation) are circled in Green in Figure 8. (Original Map: Hartzell et al. 2003:Volume 2c Site 2137: Figure 2)

Area 4 - Description and Hazards

An entry way to the site exists where Area 4 meets the Access Road. The opening is usually gated with an unlocked chain and a wooden sign. Once past the entry way, a dirt trail lined with stones leads to the interior of the site. Several circular stone planters exist in the area where Features 2, 4, and 12 should have been. It is possible that the circular stone planters (post 1992) and entryway border could have been made from rocks that were taken from these missing features.

The planting of native plants, fruit trees, and medicinal plants appear to be popular with the current Stewards. They see Site 2137 as a place of healing; thus, planting these healing and nutritious plants in the area works toward perpetuating this vision. Most of the area is well manicured with small patches of tall guinea grass in some spots. The guinea grass is more pronounced at the borders of the site and near the fence line.

There are also many banana and guava trees in the area. The terrain is mostly flat and safe to traverse. However, the back side of the area near Features 40, 25, 43, and 26, has various tall trees that sometimes pose a safety hazard. From time to time, the trees fall and block access or damage walls. Stewards have set up a temporary tent and benches around Feature 13 (the "Portuguese Oven"), a frequent gathering area.

Area 4 - Notes on Construction and Rationale for Intervention Recommendations

Features 1, 3, 13, 25, 25b, 26, 26a, 41, 43, 44, and 45 are recommended for preservation only. Portions of Features 14 and 40 are slated for rehabilitation (Figure 10). A portion of Feature 14 is recommended for restacking since the wall is highly visible when on the site Walking Trail. The community would like the portion of the wall closest to the wiliwili tree rehabilitated, while leaving the rest of the wall alone. The wall is listed as a terrace. Similar to the terraces of Area 3, Feature 14 is a kīpapa style wall. As mentioned prior, hakahaka are built up around the raised soil terrace. Pōhaku alo or kūkulu will be placed over the hakahaka to form the outer part of the wall and provide a nice facing.

Although pōhaku alo are usually placed at a 22° angle for terraces, it appears that the Hālawā terraces are made at 90° (square) angles. Pōhaku alo are usually medium to large type stones that have much more mass than the hakahaka. It appears that most of the pōhaku alo from Feature 14 have fallen away, leaving the hakahaka exposed or spilling out. The hakahaka should be gathered and reinstalled. The pōhaku alo should then be placed over these rocks. Typically, Mason's will fit these stones together and angle them in a manner that locks the stones in place. The ends of rocks are overlapped and not simply stacked on top of each other. Hawaiian Mason's refer to these stone locking techniques as ho'opiha.

Basalt rocks for these features were probably readily available from the natural rock outcroppings in the valley. Fallen stones in the area and the outcroppings should provide an abundant source for wall repair. Frequent vegetation clearing of invasive grass around the feature should be done to maintain feature visibility.

The community believes that at one time Feature 40 was more pronounced. However, erosion and fallen trees have damaged its condition over time. All the rocks (hakahaka and pōhaku alo) appear to be there, but fallen over and spread out on the ground. It is difficult to assess the construction style and architecture of the entire feature because most of the rocks have fallen over in a large pile. It is almost as if two walls were present at one time – a front wall and a back wall. The front of the feature appears more like a well-defined soil retention wall than the back of the feature, which looks like a large rubble pile or outcropping. The feature is listed as a soil retention terrace (retaining wall) in the archaeological reports.

The other terrace features of the area that are more intact (i.e., Features 14, 15, 16) utilize a kīpapa style type of construction that is also effective for retaining type walls. These features could be used as a model for the rehabilitation of the front of Feature 40. The part of Feature 40 closest to Area 5 is covered in palm grass, honohono, and sweet potato. This part of the feature should be cleared of vegetation to allow for visibility of the feature. The rehabilitation process should also encourage education about Hawaiian dry-stack techniques and the overall understanding of a multi-component type site (religious, habitation, agriculture).

Features 14 and 41, both habitation terraces, are close to the “old trail” that allowed access to the Feature 30 habitation terrace of Area 3. This old trail also connects to another trail that runs on the backside of Feature 40. This trail allows access to the upper portion of the site with the cave. The trail to the cave was not mapped. The Working Group has prescribed vegetation clearing around Features 14, 41, and 40 so that the old trail is better defined.

The trees growing near Features 43, 26, 45, and 26a should be removed to prevent future damage caused by the root systems and to improve safety conditions. This mainly includes the large African tulip trees close to Feature 43.

Feature 13 is recommended for vegetation removal only. If funds allow, the community would like to see a working replica of the oven nearby. There is ample room for a nearby replica that would not impact any other archaeological features. Feature 13 is a circular type brick and mortar oven. The Working Group prefers a replica as opposed to the repair of the existing oven.

The Working Group suggests vegetation clearing and cropping loose rocks near Feature 25. Feature 25 appears to have haka-haka in its core with larger rocks (pōhaku alo) on the outside perimeter. The community noticed that many of the small rocks from this feature sometimes fall out. They feel it would be effective to place these small rocks back in the wall rather than full rehabilitation. This type of maintenance could be done at prescribed intervals or as part of some kind of longterm maintenance plan.

Frequent vegetation clearing and management will be necessary for the long-term preservation of all other features in the area. The entire area would benefit from regular tree monitoring/maintenance and the removal of dead branches. Native or medicinal plants that pose a risk to the stability of the feature could be transplanted elsewhere. The vegetation clearing will allow visitors to see the features and minimize inadvertent damage by increasing feature visibility.

Summary of Preservation Actions for Area 3

- Vegetation clearing and tree removal around Features 1, 3, 13, 25, 25b, 26, 26a, 41, 43, 44, and 45
- Tree monitoring and maintenance (trimming, removal of fallen trees) in Area 4
- Restack missing rocks (kīpapa style) for rehabilitation of a portion of Feature 14
- Restack rocks for a portion of Feature 40 (kīpapa style; clear vegetation where needed to facilitate restacking)
- Construct replica of oven (Feature 13) near actual feature
- Remove loose rocks from trail near Feature 25 and place them back in the feature. Monitor regularly for erosion.

Mason Treatment Recommendations

The Mason’s Report recommends rehabilitation of features 14, 40 & 41. Features 26, 26a, 43, 44, & 45 are recommended for preservation. Refer to Appendix B of this report to review details of Mason’s recommendations for Area 4, including the suggested removal of all invasive species and specific trees near features identified in the Botanical Resource Management Survey & Assessment (Appendix F - Mason’s Report Appendix B).

2.5.2.5 – Site 2137, Area 5

Table 10. Site 2137, Area 5 Treatment Assessment

Site #: **50-80-10-2137** Bishop Museum #: 50-Oa-B01-75

Feature	Description	Possible Function	Estimated Age	Treatment	Level of Intervention	Vegetation/Notes
7	Wall	Boundary Marker	Historic materials on surface (no excavation)	Preservation	Tree removal	Large stump (2 ft. diameter) growing in the wall should be removed. An African tulip is also growing from this stump. There is a palm tree (18 in. diameter) and citrus close to the wall that should be removed to complete rehabilitation work.
8	Terrace	Agriculture	Historic materials on surface (no excavation)	Preservation	Vegetation removal only	There is an 'ulu tree growing out of a portion of the wall. Tall guinea grass should be cut regularly and managed to allow for visibility of the feature. Small ornamental ti leaf and African tulip saplings growing out of a portion of the wall.
9	Wall	Agriculture	Historic materials on surface (no excavation)	Preservation	Vegetation removal only	Some ti (lau nui) trees, 'ōlena (turmeric), and tall guinea grass present. Ti trees do not appear to cause a threat to the stability of the wall, but should be monitored.
10	Terrace	Agriculture	Pre-Contact / Historic	Preservation	Vegetation removal only	Hala trees in very close proximity to the wall may need to be removed to prevent damage. Noni tree root system appear to be disturbing wall stability in some places. Lā'ama (gourd) tree close to the wall. Trees should be monitored for impact.
38	Mound	Clearing, Possibly Agriculture	Historic materials on surface (no excavation)	Rehabilitation or Reuse	Restack rocks	Tall guinea grass around feature. One uki uki tree growing at corner of the wall. Some kawa noted in area.
39	Channel	Irrigation	Historic materials on surface (no excavation)	Preservation	None	
61	Mound	Clearing, Possibly Agriculture	Historic materials on surface (no excavation)	Preservation	Vegetation removal only	Wauke and ti leaf trees growing within mound. Palm and coconut tree just outside feature. Coconut fall should be monitored.

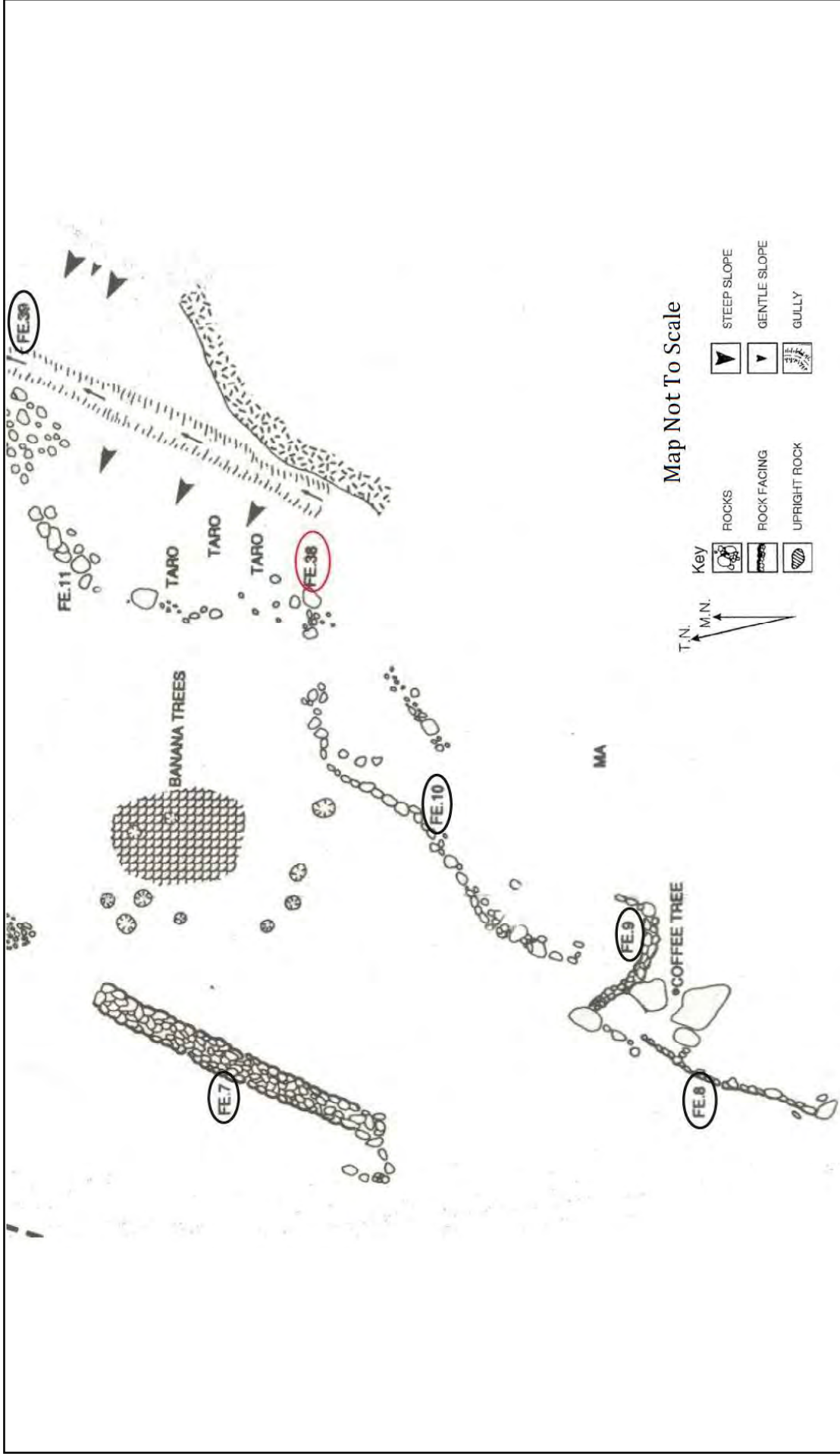


Figure 11. Figure Site 2137 Portion of Area 5. The labels of features slated for rehabilitation are circled in red; features slated for preservation only are circled in black. Missing feature 61 (rehabilitation) is circled in green in Figure 10. (Original Map: Volume 2c Site 2137: Figure 2)

Area 5 - Description and Hazards

The access road crosses a portion of Area 5 and therefore, this area experiences the highest visitor volume. The areas immediately adjacent to the Access Road were built up from the dirt scraped away to make way for the Access Road. These portions are elevated at a slightly higher grade than the rest of the area. This further supports the idea that some features (17, 21, 22, 23, 24) close to the road were buried or destroyed when the access road was installed. Visitors usually park their cars under the interstate where Features 21 and 22 should be. From the many years of vehicle impact, it is possible that these features were displaced. Parking could continue in this location or perhaps be relocated to a designated area that clearly avoids features.

A large storage container and portable toilet sit on the elevated area close to a steel-post and wire fence. The fence was installed in the early 1990s as an interim means to protect portions of the site from construction impact. The fence is now damaged in several places and has become a visible eyesore (Figure 12). Several areas of the wire fence have holes created by visitors attempting to create more direct access to the road.

No features appear to be impacted by the placement of the fence, container, or portable toilet. Feature 24 may be under a greenwaste pile near the access road deposited when vegetation maintenance occurs. In the future, Stewards may consider moving the greenwaste pile to locate Feature 24.

Two walls have been previously restacked to some extent at Features 7 and 10. The community attributes this work to Uncle Luis Hangca, Jr. He aided in the upkeep of the area and trained individuals in dry-stack masonry. A large old tree stump with an African Tulip growing out of it is located in the wall of Feature 7 and should be removed to complete successful rehabilitation. This will require a small portion of the wall to be deconstructed temporarily. A citrus and palm tree near the feature should also be removed if the rehabilitation of the rest of Feature 7 is desired.

Most of the area near Features 7, 9, 10, and 34 is well manicured with low-cut grass. The terrain is flat and easy to traverse and many visitors gather here before going to the rest of the site. Some areas around Features 8, 9, and 38 do have pockets of tall guinea grass that should be maintained and cut regularly as part of long-term site maintenance.

Area 5 - Notes on Construction and Rationale for Intervention Recommendations

Features 7, 8, 9, 10, 39, and 61 are recommended for preservation only. The community only recommends the rehabilitation of Feature 38 (Figure 11) because of its proximity to an unmapped trail leading up to the cave. In the "Previous Archaeology" section of this report, Feature 38 is listed as a mound. The Archaeological Condition Assessment notes that additional rocks had accumulated on top of the mound. Rocks may also have eroded from the nearby slope on to the mound. Some community members recall that the feature was part of a larger back wall that connected to Feature 11 which could not be found during the archaeological Condition Assessment. The repair work for Features 7 and 10 appears to use a hakahaka style of construction. It is possible that rocks from Feature 11 and the slope were utilized for these efforts. It is suggested that the rocks that comprise the Feature 38 mound be used to partially recreate the Feature 11 wall in the same fashion as Features 7 and 10 to maintain consistency in Area 5. This would enable the community to reconstruct the wall as they remember it and facilitate education about Hawaiian mason techniques.

If the hakahaka style is used for the construction of a wall, larger niho stones would be placed at the base of the wall to form the perimeter of the wall's shape. Hakahaka are then used to fill the interior of the wall. Pōhaku alo or kūkulu stones are overlapped on top of each other and stacked over the niho stones. The process of filling hakahaka and adding kūkulu stones occurs gradually as the wall's height is increased. The kūkulu stones are stacked over the niho stones in a position that slants inward, thus allowing gravity to keep the structure together (Hui Ho'oniho 2012). From afar, these types of dry-stack walls appear to have a slight trapezoidal taper to them. When the desired height is reached, cap stones (pohaku papale) are added to provide a nice finish. The rehabilitation process should also encourage education about Hawaiian dry-stack techniques and the overall understanding of a multi-component type site (religious, habitation, farming). Alternatively, the mound could be left as is or at the very least rehabilitated by removing eroded stones and organizing the mound better.

The community would like to see Feature 7 stabilized by having the tree stump growing out of the wall removed. Partial wall deconstruction will be necessary for the removal of the tree. Reconstruction could then commence again in the hakahaka style.

The Features slated for Preservation only are 7, 8, 9, 10, 39, and 61. Preservation of these features should consist of regular vegetation clearing. The entire area would benefit from tree monitoring and maintenance and the removal of dead branches. Native or medicinal plants that pose a risk to the stability of the feature could be transplanted elsewhere. The hala tree near Feature 10 should be monitored for possible future impact. If necessary, the tree could be removed.

Summary Preservation Actions for Area 5

- Tree removal at Feature 7 (reconstruct portion of the wall using hakahaka style)
- Tree monitoring and maintenance (trimming, removal of fallen trees) in Area 5
- Vegetation clearing around Features 8, 9, 10, and 61
- Re-stack rocks (hakahaka style) for rehabilitation Feature 38
- Remove loose rocks from trail and monitor regularly
- Repair fence or install new fence or create landscape barrier

Mason Treatment Recommendations

The Mason's Report recommends rehabilitation of Feature 7. Feature 38 is recommended for preservation. Refer to Appendix B of this report to review details of Mason's recommendations for Area 5, including the suggested removal of all invasive species and specific trees near features identified in the Botanical Resource Management Survey & Assessment (Appendix F - Mason's Report Appendix B).



Figure 12. Site 2137 dilapidated steel and wire fence.

2.5.2.6 – Site 2137, Area 6

Table 11. Site 2137, Area 6 Treatment Assessment
 Site #: **50-80-10-2137** Bishop Museum #: 50-Oa-B01-75

Feature	Description	Possible Function	Estimated Age	Treatment	Level of Intervention	Vegetation/Notes
18	Linear Mound		Undetermined (no excavation)	N/A	None	Destroyed, eroded, or buried.
19	Terrace	Water Control	Historic	N/A	None	Destroyed, eroded, or buried.
20	Terrace	Probably Agriculture	Mixed (Historic and Pre-Contact)	N/A	None	Destroyed, eroded, or buried.
62	Rock Concentration	Undefined	Historic (diagnostic material dating to ca. 1850-1885)	N/A	None	Destroyed, eroded, or buried.



Figure 13 Figure 10 Plan view of Site 2137 Portion of Area 6. These features could not be re-located and are labeled in red (Original Map: Hartzell et al. 2003: Volume 2c Site 2137: Figure 2)

Area 6 - Description and Hazards

Area 6 sits just above the Hālawā Stream. The area is usually not frequented by visitors because it is difficult to reach. A steep slope clearly separates Area 6 and Area 2. Area 6 is heavily eroded and usually quite muddy from slope downwash. The area closest to the stream has been badly eroded (Figure 14). The erosion will likely continue due to a large boulder in the stream that has forced the stream water to wash up directly against Area 6 (Figure 15).

Community members reported that the boulder had fallen into the stream during construction of the road. As a result of the erosion and slope downwash, the features in this area are either buried or destroyed from erosion. The community also feels that the diverted water is pushing debris against the bridge. HDOT should inspect the situation if the access roads and bridges are to be retained.

Area 6 - Rationale for Intervention Recommendations

Although no rehabilitation is recommended, the area as a whole should be stabilized and protected. Some type of mitigation for the stream erosion should be in place to prevent further erosion of the area. Either a retaining wall could be built against the stream or the boulder diverting the stream water should be removed. Plans for such a retaining wall could be included as a supplement to this Preservation Plan in the future if it is to be carried out.

Summary of Preservation Actions for Area 6

- Remove large boulder from stream (to be done by HDOT) or build retaining wall at base of Area 6

Mason Treatment Recommendations

The Mason's Report does not include any recommendations for Area 6 as the features were not located at the time of assessment.



Figure 14 . Edge of Area 6 eroding away from stream wash.



Figure 15. Large boulder diverting stream flow towards Area 6.

Table 12. Hawaiian or Common Plant Names with their Respective Scientific Names

Hawaiian Common Name	Scientific Name	Hawaiian Common Name	Scientific Name
'A'ali'i	<i>Dodonaea viscosa</i>	Laua'e	<i>Phymatosorus grossus</i>
African tulip	<i>Spathodea campanulata</i>	Loulu	<i>Pritchardia martii</i>
Allspice	<i>Pimenta dioica</i>	Mamake	<i>Pipturus albidus</i>
Ardisia	<i>Ardisia crenata</i>	Mango	<i>Mangifera indica</i>
Avocado	<i>Persea americana</i>	Mountain Apple Tree	<i>Engenia malaccensis</i>
'Awapuhi	<i>Zingiber zerumbet</i>	Noni	<i>Morinda citrifolia</i>
Banana	<i>Musa spp.</i>	'Olena (turmeric)	<i>Curcuma longa</i>
Banyan	<i>Ficus benghalensis</i>	Octopus Tree	<i>Schefflera actinophylla</i>
Basket Grass	<i>Oplismenus hirtellus</i>	Opiuma	<i>Pithecellobium dulce</i>
Coconut Tree	<i>Cocos nucifera</i>	Ōwī	<i>Stachytarpheta dichotoma</i>
Croton	<i>Codiaeum variegatum</i>	Palm Grass	<i>Setaria Palmifolia</i>
Gun Powder	<i>Trema orientalis</i>	Palm Tree	<i>Pritchardia hillebrandii</i>
Guava	<i>Psidium guajava</i>	Ti	<i>Cordyline fruticosa</i>
Guinea Grass	<i>Megathyrsus maximus</i>	Uki Uki	<i>Dianella sandwicensis</i>
Hala	<i>Pandanus tectorius</i>	'Ulu (breadfruit)	<i>Artocarpus altilis</i>
Hō'io	<i>Diplazium sandwichianum</i>	Wauke	<i>Broussonetia papyrifera</i>
Kukui	<i>Aleurites moluccanus</i>	Wiliwili	<i>Erythrina sandwicensis</i>
La'amia (gourd)	<i>Lagenaria siceraria</i>		

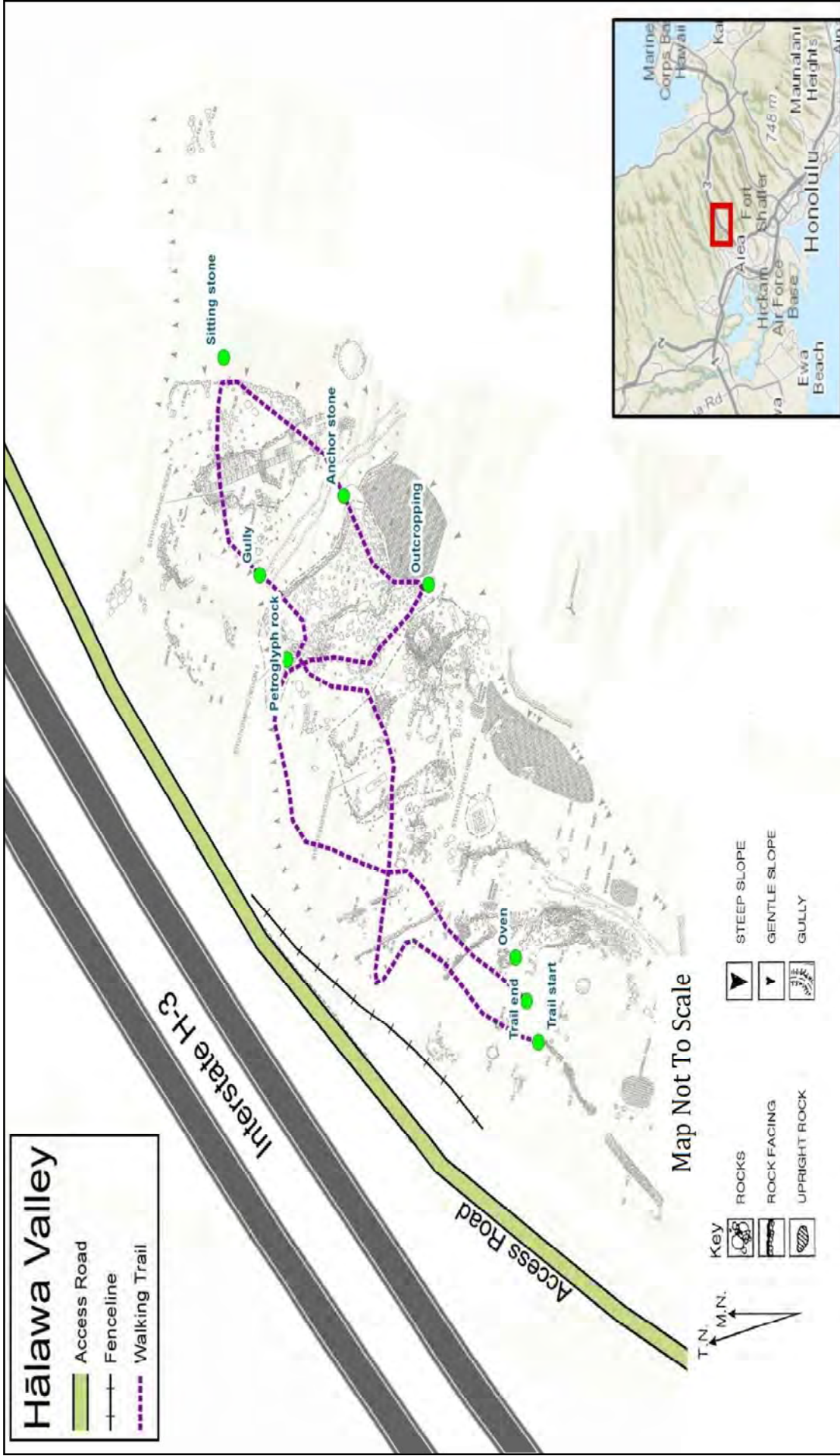


Figure 16 . Site 50-80-10-2137 Walking Trail Map (Overlays Original Map: Hartzell et al. 2003:Volume 2c Site 2137: Figure 2)

Table 13. Site 50-80-10-2137 Walking Trail – Latitude and Longitude

Walking Trail Point	Latitude	Longitude
Trail start point	21.39177	-157.892487
Petroglyph rock	21.3922	-157.891986
Gully	21.39224	-157.891875
Sitting stone	21.39231	-157.89159
Anchor stone	21.3921	-157.891771
Outcropping	21.39196	-157.891888
Oven	21.39181	-157.892376
Trail end	21.39179	-157.892434

2.6 Long-Term Preservation Maintenance

Proposed rehabilitation actions and tree removal for Site 50-80-10-2137 detailed in the Treatment Assessment should be carried out by the HLID project in the next two to three years if funding is available; and, permitting and HDOT (land owner) approval allows. In terms of priority, the rehabilitation and tree removal are to be done in the following order: 1) Area 3; 2) Area 4; 3) Area 2; 4) Area 5; and 5) Area 1. The prioritization was based on input from the Working Group and community members who participated in the Treatment Assessment process.

HLID procured an experienced (Hawaiian dry-stack) mason to create a design proposal and a certified arborist to assess and inventory the trees in areas identified for tree removal in the Treatment Assessment. Guidelines for mason work and repair, which are modeled after the Secretary of the Interior’s Standards for Preservation and Rehabilitation, will be followed (see Guidelines for Rehabilitation Work below). Arborist work will be done in a way that minimizes impact to the archaeological features (see Vegetation Clearing Outline, item III below). All preservation treatment work is to be monitored by a qualified archaeologist in accordance with guidelines detailed below. Archaeological monitoring guidelines can be further established and detailed in an Archaeological Monitoring Plan. An annual field inspection report is recommended to continue to monitor the condition of Sites 2010 and 2137.

All approved work should be done in collaboration with the community members and selected site Stewards. The selected site Stewards can finish and phase the proposed rehabilitation and tree removal work should HLID not be able to finish all proposed actions in the next two to three years. All completed rehabilitation and tree removal work is to be photographed. HLID recommends that knowledge of and expertise in Hawaiian dry-stack masonry be a necessary requisite for continuing rehabilitation recommendations. The rehabilitation work could be worked into an educational program about Hawaiian dry-stack masonry and the different kinds of architecture associated with a multi-component type archaeological site. HLID further recommends that continued tree removal be done by a certified arborist (e.g., International Society of Arboriculture [ISA]).

Nā Kūpuna a me Nā Kāko’o ‘o Hālawā Inc. (NKNKHI) has been selected as the Hālawā Steward. A Request for Qualifications (RFQ No. HLID-2015-01) went out on the OHA website and Honolulu Star Advertiser on November 1, 2015. As detailed in the 2008 IDP (page 21), “OHA shall select an organization or organizations to manage the day-to-day activities within [Hālawā] valley... operations, maintenance and program administration will be assigned to a Hālawā nonprofit organization (H-NPO).” RFQ scoring criteria were based on: knowledge of Hawaiian culture; educational teaching experience; fiscal acumen and ability; knowledge of the site and place; organizational structure and management; and community outreach experience. NKNKHI will be tasked with creating a Stewardship Management Plan (SMP) and Business Plan; and obtaining liability insurance.

Preservation treatment recommendations made in this Preservation Plan will be incorporated into the SMP as part of the long-term care of the site. The SMP will allow the Stewards to carry out preservation measures at a pace and scope that is right for their group. It also allows preservation to be more fluid and practical rather than strictly sticking to preservation measures and recommendations that may or may not be feasible in the future. HLID will collaboratively work with the Stewards to create this SMP to help build their capacity and ability to preserve the sites. Although an SMP is not governed by any Hawaii Administrative Rules (HARs), SHPD could be asked to review the SMP for compliance with recommendations made in the Preservation Plan. While a Preservation Plan is useful for detailing preservation treatments and general protection measures, it lacks requirements for the management required of preservation work that make preservation measures meaningful and practical. In an ideal situation, a Preservation Plan and SMP should be synthesized into a single document as the HARs do not limit the inclusion of management recommendations. In reality, it is not always easy to procure Stewards for the long-term care of a site. In this sense, HLID felt it better to address the HAR requirements associated with a Preservation Plan first in order to allow a greater degree of freedom in the crafting of a SMP.

It is HLID’s recommendation that a Condition Assessment of site features be carried out by the site Stewards every two years. Doing a Condition Assessment every two years allows for better site monitoring, preservation, and general education about the site. Maintaining a Condition Assessment log should aid in any future rehabilitation plans or preservation revisions Stewards may develop later.

Although the idea of interpretive signage was proposed, the Working Group and community members who participated in the Treatment Assessment process do not wish for the installation of any interpretive signage at Site 50-80-10-2137 at this time. If signage is desired in the future, HAR 13-277-7 should be followed.

HLID understands that many of the preservation actions recommended for Site 50-80-10- 2137 constitute a long-term commitment. Proposed preservation actions (i.e., vegetation clearing, litter control, trail maintenance) from this Treatment Assessment should be phased out and completed by the selected site Stewards. Although it is desired to have monthly vegetation clearings, litter clean-ups, and trail maintenance, work execution may be dependent on Stewards volunteer turn out and capacity. Minimum vegetation clearing guidelines are detailed below along with the guidelines for rehabilitation and dry-stack work. Guidelines for rehabilitation work and repair are modeled after the Secretary of the Interior’s Standards for Preservation and Rehabilitation.

2.6.1 General Guidelines for Rehabilitation Work

- I. Repair by conserving existing materials; no building materials will be introduced from outside the immediate project area.
- II. Retain the historic character of the properties (sites) by avoiding replacement and alterations.
- III. Repair damaged portions of the structures so they are physically and visually compatible with the original portions of the structure.
- IV. Preserve distinctive materials, features, finishes, and construction techniques.

- V. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration require replacement, the new feature will match the old in design, color, texture, and where possible, materials.
- VI. No chemical or physical treatments are permitted.
- VII. Protect and preserve in-place archaeological resources, and if such resources are disturbed, undertake mitigation measures.
- VIII. New additions will not destroy historic materials, features, and spatial relationships that characterize the property. New additions shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

2.6.2 Dry-Stack Repair Work Guidelines

- I. If necessary, identify features where temporary ladders/external stabilization devices are needed, procure materials needed for such devices and construct such devices.
- II. Remove rubble overburden from wall bases to expose foundation stones.
- III. Disassemble wall upper courses and/or intact wall adjacent to damaged segments and reassemble if necessary to repair damaged sections.
- IV. Re-set damaged wall sections using drylaid (mortarless) style of masonry.
- V. Excavate soils under or around wall foundation stones if necessary under the supervision of an archaeologist.
- VI. If ground deformation, erosion, or soil creep has warped the ground position of the niho, or foundation stones, of these walls, the foundation stones may not be moved unless repositioning of a foundation stone is essential to reestablishing the structural integrity of the wall. Moving foundation stones and any trenching will be done in the presence of an archaeological monitor.

2.6.3 Archaeological Monitoring Guidelines

(to be detailed in greater depth in Archaeological Monitoring Plan)

- I. Conduct a pre-repair briefing on site with stone Mason's, the mason crew, and any volunteers or trainees explaining the historic preservation commitments made and any other information needed to ensure effective execution of repair work.
- II. Photograph walls to be repaired prior to work commencement.
- III. Update written feature descriptions if existing description is determined to be inaccurate or incomplete.
- IV. Map the archaeological features to be repaired prior to commencing rubble removal at a scale sufficient to depict the position of intact foundation stones.
- V. Photograph archaeological features following rubble removal and prior to commencement of repairs.
- VI. Photograph archaeological features following repairs.
- VII. Provide a description of repaired structures and summary of repair actions taken.

2.6.4 Vegetation Clearing Guidelines

- I. 5 Foot Buffer Zones
 - a. Mark buffer zone around archaeological features on maps.
 - b. Identify how buffer zone will be marked on the ground. Clearing the buffer zone first will need to take place before all other clearing activities.
 - c. Activities in the buffer zone: Hand-clearing of grass and low vegetation (with small hand tools) will take place in the buffer zone to avoid possible impact to archaeological features. Machinery or large tools (e.g., weed-whacker, chainsaw, machete) to cut grass and low vegetation will be allowed outside the buffer zone

- d. Instructions for clippings and removal: vegetation should be cut to pieces less than 3 feet to allow for easy-transport. Vegetation should be carried and not dragged to avoid displacing rocks. Clippings will be placed in specific piles near the work area that will need to be periodically cleared throughout the day. A wheelbarrow may be used for this purpose.

II. Temporary Access Trail

- a. Since work will take place in close proximity to archaeological features, a specific “greenwaste” path will be delineated on a map. Archaeological plan view maps will be used as they are the most detailed in regards to archaeological features.
- b. Wooden ramps may need to be set up to traverse over walls to minimize impact to archaeological features. These ramps will also allow for efficient transport of greenwaste in wheelbarrows.

III. Temporary Access Trail

- a. All work for large trees to be carried out by an ISA certified arborist.
- b. Herbiciding: An herbicide may be injected into a tree’s circulatory system to reduce tree strength and kill the root system. In areas where the root system has become intertwined with a wall, herbiciding effectively aids in removal.
- c. Trees or branches are to be roped so that sections can be cut and lowered to the ground gradually. This will minimize any impact to archaeological features, the ground, and reduce risk to personnel.

IV. Disposal of Greenwaste Guidelines

- a. Designate an area(s) where all greenwaste from vegetation clearance can be deposited. This area should be far from the site and close enough to a road to allow for easy pick up.
- b. Chipper: Vegetation clippings can be further reduced in size by having a chipper at designated disposal areas. Chippings and compost may be disposed of or saved for future use on trails at the site.
- c. Identify greenwaste facility: Hawaiian Earth Products (HEP) is a recognized greenwaste facility by the Department of Environmental Services. Leeward and windward HEP locations will provide for convenient disposal from either project area. Disposal fees are set at \$41 per ton of greenwaste.



3. NKNKHI STRATEGIC ACTION PLAN

In lieu of a Business Management Plan, NKNKHI has developed a 5-Year Strategic Action Plan (SAP), which includes a financial plan that will detail a reasonable means of sustaining actions and staffing needs of the SMP, including the maintenance and management of the HLID North Hālawā Valley project area.

3.1 Vision

To protect and advocate for Native cultural and sacred sites in North Hālawā Valley on O‘ahu and to facilitate cultural and community based education programs for its protection into perpetuity.

3.2 Goals

- Ensure obligations under the NHPA as set forth in the 1987 MOA are fulfilled
- Advance 2008 IDP actions and vision
- Fulfill obligations of HLID and HDOT as set forth in the CA
- Fulfill obligations of NKNKHI and HLID as set forth in the 2020 MOA

3.3 Purpose and Objectives

The purpose of the SMP and SAP is to create an understanding of the relationship, responsibilities, limitations, and processes to follow between the stewards and HDOT during the implementation of mitigation objectives related to the project site. Ultimately, the SMP will serve to facilitate the terms set forth in HDOT’s Revocable Permit which is required for continued long-term access and will meet the IDP vision alignment and IDP mitigation objectives for Hālawā. The logic model for this project is as follows in Figure 17.

HĀLAWA-LULUKU INTERPRETIVE DEVELOPMENT (HLID) PROJECT LOGIC MODEL

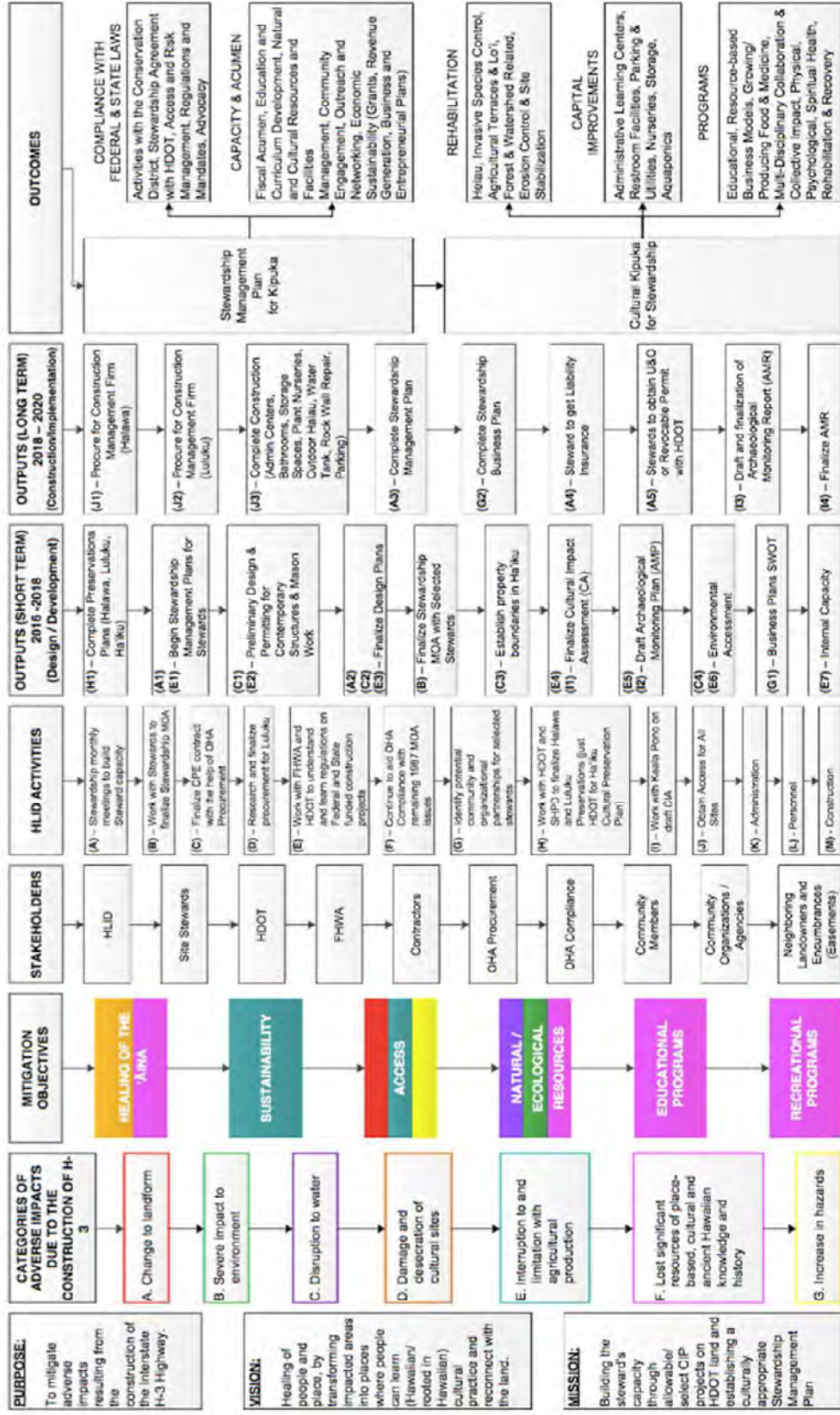


Figure 17: HLID Project Logic Model

3.4 NKNKHI Hālawā Program Area Boundaries and General Provisions

3.4.1 Program Area Boundaries

Current program area boundaries incorporate all areas within the boundaries of Hālawā Valley Project Area Site 2137 as well as select areas around Site 2010 for invasive grasses management when feasible. The program area boundaries may expand to include select archeological features found within the boundaries of Site 2010 in the future as stewardship capacity expands and as agreed upon by HDOT.

3.4.2 General Provisions

To facilitate the issuance of a revocable permit by HDOT, NKNKHI has developed the included Site Maintenance Plan and Procures (Section 6) which expands upon the general provisions regarding the maintenance of the project area and programs below.

3.4.2.1 Program Hours

Programs are typically run during normal work hours:
Monday – Friday 9:00am - 4:00pm

Program activities may also be run on holidays and over weekends

Community work days are generally held:
Sundays – 8:30am - 2:30pm

No programs take place on Christmas Day (December 25) or New Year’s Day (January 1)

3.4.2.2 NKNKHI Core Team

All NKNKHI Core Team members shall have all necessary and appropriate qualifications and insurances needed to work with youth and the community. Only Core Team members shall be given access to restricted areas or property keys.

All NKNKHI Team members shall be provided a copy of this plan so they may have a copy of the organization’s security and emergency procedures.

3.4.2.3 Waivers

All program participants shall be required to complete a waiver prior to participating in program activities. Minors shall be required to have a legal guardian signing the waiver. The waiver language is included below:



Nā Kūpuna A Me Nā Kāko‘o O Hālawā, Inc.

Site Visit and Release Agreement

I, "the Participant," acknowledge that I have voluntarily applied to participate in a site tour and/or a workday or other activities at the Hālawā Valley site complex and cultural center on _____.

I acknowledge that there is an inherent risk of personal injury during this visit at the Hālawā Valley site complex, and I agree that I am participating of my own volition. I recognize that I may encounter certain dangers, including, but not limited to walking on unimproved and uneven walkways and paths, and extreme temperature. I am aware that not all areas are suitable for keiki (small children) and kūpuna (elders). I also understand that there is only one portable toilet, and no other bathroom facilities, no potable water, or landline telephones, and that emergency care may not be readily available. I will take appropriate steps to ensure my personal health and endurance during this visit, including rest, food and carrying any prescribed medication I may be taking.

I acknowledge that *Nā Kūpuna A Me Nā Kāko o O Hālawā, Inc.* and *the State of Hawai‘i* make no warranty or representation, expressed or implied, regarding the conditions that may be encountered during this visit.

I am in good health and am not aware of any physical or medical condition that might endanger me or other participants. I have read and agree to follow all verbal and written rules, regulations and safety instructions as well as all applicable laws. I verify these statements by signing below.

I hereby forever release Nā Kūpuna A Me Nā Kāko‘o O Hālawā, Inc. the State of Hawai‘i and their respective directors, officers, employees, volunteers, agents, contractors, and representatives from any and all actions, claims, or demands that I, my assignees, heirs, distributees, guardians, next of kin, spouse and legal representatives now have, or may have in the future, for injury, death, or property damage related to my participation in these activities, the negligence or other act, whether directly connected to these activities or not, and however caused, by any Release, or the condition of the premises where these activities occur, whether or not I am then participating in the activities. I also agree that I, my assignees, heirs, distributees, guardians, next of kin, spouse and legal representatives will not make a claim against, sue, or attach the property of any Releasee in connection with any of the matters covered by the foregoing release. I further agree that I will be responsible either for personally supervising the minor(s) or for making arrangements for supervision of the minor(s) by another adult.

The agreement is freely and voluntarily executed. I HAVE CAREFULLY READ THIS AGREEMENT AND FULLY UNDERSTAND ITS CONTENTS. I AM AWARE THAT THIS IS A RELEASE OF LIABILITY AND A CONTRACT BETWEEN ME AND NĀ KŪPUNA A ME NĀ KĀKO O O HĀLAWA AND THE STATE OF HAWAII.

ALL PARTICIPANTS AND GUESTS MUST SIGN IN. PARENTS OR GUARDIANS MUST SIGN FOR EACH MINOR.

NAME of participant Please print	Signature of participant/ releasor	Email - legible	Organization/ ‘ohana	Address	Phone	Hawaiian Y/N

3.5 Program Activities

The following section outlines and describes the various program activities that will take place within the project area to achieve the Goals, Purpose, and Objectives of the SAP, and to move towards achieving the IDP Vision developed and agreed to by all parties and partners of the HLID Project.

NKNKHI is a grassroots organization formed in 1997 with a mission to protect and advocate for Native cultural and sacred sites in North Hālawā Valley on O‘ahu and to facilitate cultural and community-based education programs for its protection. NKNKHI provided community input in mitigation efforts by Federal and State agencies responsible for the destruction of Native Hawaiian cultural and religious sites left behind by the construction of the H-3 Freeway.

Program activities are led by the Stewards and supported by HDOT, OHA, FHWA, SHPD and other parties as indicated in this document.

3.5.1 Program Rules

All parties entering the project area shall be notified of the following rules. In consideration of the COVID-19 pandemic, these rules may be updated to reflect recommendations from the State of Hawai‘i and/or Center for Disease Control as appropriate to ensure the safety of all participants or individuals who enter the property.

Program Rules

- No drugs, alcohol, or smoking in program area.
- No violence.
- No swearing.
- No minor with any cuts or open wounds on their body shall be allowed into any body of water on site.
- Appropriate restroom facilities shall be used at all times.
- All participants shall participate in cultural protocol prior to entering or working on the properties, which shall be led by NKNKHI members
- No photographs/videos of archaeological features during tours are permitted at any time



3.5.2 Heal the 'āina

This section directly addresses the first, third, fourth, and fifth North Hālawā Valley Mitigation Objectives (Healing of the 'āina, Access, Natural Ecological Resources, and Educational Program) as outlined in section 2.1.2



3.5.2.1 Stabilize the site to prevent erosion

North Hālawā Valley has been severely impacted by increased storm events and the proliferation of invasive species. Collectively, these impacts have undermined the stability of the site.

Stabilization of the area will require the following actions to take place in partnership with and financed by HDOT:

- Area 6 stream work to minimize and prevent flooding events within Site 2137
- Removal of large boulder blocking streamflow and undermining integrity of archaeological features found within area 6

3.5.2.2 Implement Preservation Plan to protect existing resources

An archaeologist has been procured through OHA to complete a SHPD approved Preservation Plan. NKNKHI will work with the archaeologist to develop and implement a plan that works to restore, preserve and maintain the resources in the cultural landscape. The following subsections in this plan should be updated to reflect recommendations set forth by the Preservation Plan once it is published.

3.5.2.3 Communicate the significance of the cultural landscape

NKNKHI will develop programmatic outreach materials that communicates the significance of the North Hālawā Valley cultural landscape through an interpretive program that describes the impacts the project had to the 'āina and through the teaching of traditional and contemporary practices on the land.

This may include the development of brochures, websites, and other products that can be distributed to schools and community groups to help raise the awareness about the site.

NKNKHI actively works with communities and students to educate groups, immersing them into an environment that is experiencing healing through the efforts of volunteers working on restoring native vegetation, and the stabilization and restoration of cultural sites by leading spoken tours and providing opportunities to mālama 'āina (care for the land).

3.5.3 Sustain

This section directly addresses the second North Hālawā Valley Mitigation Objective (Sustainability) as outlined in section 2.1.2



Much of the invasive flora has become overgrown and unruly, creating access difficulties and concerns regarding vegetation/landscaping management.

The goal of this program area is to mobilize and implement activities that remove and/or manage the invasive species in the program area. Specifically, NKNKHI is focused on managing invasive species so native food plants and medicinal plants can be regularly harvested as part of the organization's education program.

3.5.3.1 Establish sustainable practices

NKNKHI will establish sustainable practices within the area that demonstrates how the host culture cared for the land in accordance with the guidelines outlined within the forthcoming Preservation Plan.

3.5.3.1.1 Removal of Invasive Vegetation

NKNKHI will work with volunteers and partners to remove the invasive species that threaten the historic sites and resources in accordance to the instructions outlined within the forthcoming Preservation Plan. Initial clearing may be done by the archaeologist while locating the exact boundaries of the site with GPS for mapping and future use.

Vegetation clearance activities will focus on noxious weeds, invasive plants, and dead/diseased non-native tree removal in accordance with the guidelines outlined within the forthcoming Preservation Plan.

3.5.3.1.2 Mulching

Mulch will be produced onsite from invasive woody plants when possible; additional mulch materials will be purchased as needed to be used around new plantings.

3.5.3.1.3 Herbaceous Weed Control and Brush Management

Herbicides will be applied sparingly and with caution to reduce herbicide drift onto soils and sensitive native out-plantings. Label instructions will be followed to ensure greatest success. Applying herbicide during dry periods will reduce contact with the soil and increase the effectiveness of the treatment.

Weeds and invasive shrubs will be removed manually to protect the sensitive fern understory and historic sites. Other naturalized invasive tree seedlings will also be removed manually and through chemical means when necessary, to prevent the future establishment of a non-native overstory. Any use of chemical methods will be done with HDOT approval.

3.5.3.1.4 Monitoring

The site shall be regularly monitored by NKNKHI. No activity shall take place within the site without prior notice to NKNKHI and without someone on-hand to provide cultural monitoring to activities. The only exception to this notice requirement shall be in emergency situations when there is an imminent threat to life or property.

Maintenance will include the periodic clearing of trails and removal of branches blocking the path. Access to work sites around the property will require maintenance and annual clearing along the trails throughout the property.

Diseased and low growing branches will be thinned, as needed, to ensure a healthy canopy.

The presence and impact of either pigs, pig hunters, and/or other invasive species will be monitored and reported to HDOT as needed. HDOT will consult with the Stewards regarding hunters in the valley if at any time HDOT desires to hire or approve any hunting activities; cultural monitoring may be required in order to ensure adequate protection of the cultural and archaeological resources in the valley.

Hand watering will be used as needed to aid native plant establishment. Weed growth will be removed manually, mulched, or sprayed as appropriate.

3.5.3.1.5 Fencing

Despite the presence of feral pigs in the project area, there are currently no plans to install additional fences at this time. The current fencing will be maintained or replaced as appropriate. This work shall be done by HDOT based on the advice and input of NKNKHI. Stewards should record fence damage or suspected trespassing to HDOT when encountered.

3.5.4 Access and Practice

This section directly addresses the third, fifth, and sixth North Hālawā Valley Mitigation Objectives (Access, Educational Program, & Recreational Programs) as outlined in section 2.1.2



3.5.4.1 Develop facilities to enhance access

The stewards will work to develop facilities and implement programs that provide access into the North Hālawā Valley project sites for individuals' (groups) to pursue knowledge and cultural practices. This plan will be updated to reflect any changes to programs or construction of facilities once completed.

3.5.4.1.1 Implement Feasibility Study

OHA, with approval from both HDOT and FHWA, procured Community Planning & Engineering, Inc. to complete a "Hālawā-Lulukū Development Feasibility Report."

The purpose of the Hālawā-Lulukū Development Feasibility Report was to investigate the feasibility of incorporating various elements within the project area to assist the working community group (Stewards) with their visions for the North Hālawā Valley and Lulukū project area. The objective of this report was to provide site layout alternatives based on discussions with the Stewards and coordination with representatives from FHWA, HDOT and HLID. The project elements presented in this report are based off the IDP for their respective project site, with input from the Stewards.

Each project element will be explored and options for implementing the element within the project site will be discussed. These various project elements are incorporated into different feasible site layouts, put together through consultations with the stakeholders on what elements are most desirable, the feasibility of implementing the project element, and the budgetary expenses for installation, operation, and maintenance of each element.

3.5.4.1.2 Implement Maintenance Plan

Stewards shall provide HDOT with a Maintenance Plan upon placement of any temporary or permanent facilities. Maintenance site visits will be discussed in detail in the Maintenance Plan; however, are anticipated to be as frequent as 1-2 times per month and will have varying durations dependent on the specific reason for maintenance.

3.5.4.2 Programs to Enhance Cultural Practices

NKNKHI will offer programming for both students and community members regarding the cultural practices that necessitate managing a wahi kapu (sacred place). The goal of this programming will be to ensure that all individuals understand how to behave in a pono and respectful manner when in a wahi kapu. Traditional Ecological Knowledge (TEK) and education are promoted through the teaching of traditional and contemporary practices on the land.

NKNKHI will identify and develop culturally sensitive outdoor recreational pursuits which promote sharing the 'āina and complements Hawaiian history, culture and the traditions of these lands and people. NKNKHI will work with organizations involved with these activities in ensuring culturally and environmentally appropriate access. NKNKHI will accomplish this through their programs that aim to pursue knowledge and enhance cultural practices among student and community groups.

3.5.5 Natural/Ecological Resources

This section directly addresses the fourth North Hālawā Valley Mitigation Objective (Natural/Ecological Resources) as outlined in section 2.1.2



3.5.5.1 Implement actions that promote ecological balance

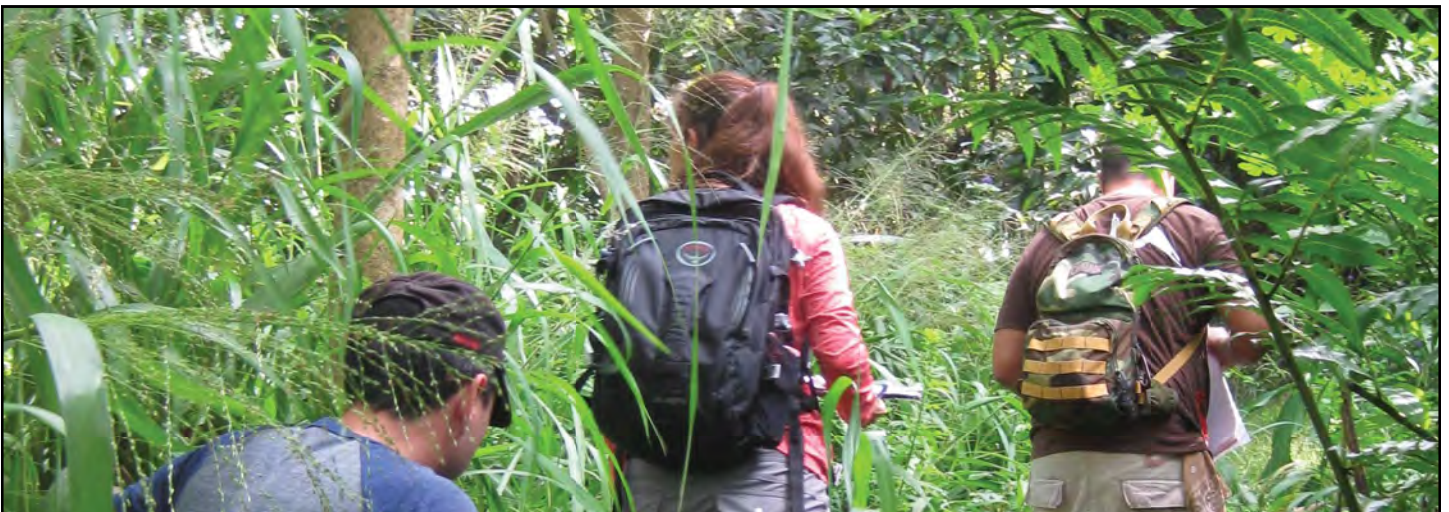
NKNKHI will implement actions that promote ecological balance of the environment and perpetuate both the knowledge and practices of Native Hawaiian culture.

Some of the actions NKNKHI implements are through our educational programs which are multidisciplinary in nature. Collectively, the practice of these multi-disciplinary activities promotes ecological balance within the environment.

Students and community members are exposed to subjects like geography, engineering, archaeology, hydrology, health, food systems, governance, and sustainable agriculture. All subjects are taught in a hands-on manner that is rooted in Hawaiian culture, which emphasizes ecological balance for a healthy environment.

3.5.6 Educate

This section directly addresses the fifth North Hālawā Valley Mitigation Objective (Educational Program) as outlined in section 2.1.2



NKNKHI will develop educational programs and materials to interpret the historic and cultural resources plus contemporary history of the H-3 struggles of the project area to a wider audience.

3.5.6.1 Educational Programs (Ho'ona'auao)

In 1997 members NKNKHI began clearing dense weeds and brush from Native Hawaiian cultural and sacred sites, clearing the land to advocate for the protection of those sites and to plant Native Hawaiian gardens.

Today, North Hālawā Valley serves as a healing and learning center, which we preserve and keep alive through cultural practices. It is a place of worship and observation. The valley heals the mind and body and it teaches values and skills from traditional arts and crafts to food sovereignty, history, politics, archaeology, and the sciences.

Practitioners, students, and visitors are immersed in an environment that is healing itself through the efforts of volunteers restoring native vegetation and cultural sites. Knowledge and education are thus promoted through the teaching of traditional and contemporary practices on the land.

Ho'ona'auao means "to gain wisdom" Currently, NKNKHI has developed and continues to host the following programs:

Cultural tours

We strive to educate everyone who comes into the valley. We give historical tours that highlight the cultural significance of the many sites in Hālawa. The cultural tour is a guided experience revealing several significant sites along with information on cultural practices and their uses. Pōhaku ki'i, la'au lapa'au, plant use and other areas are explained, and questions encouraged. This is all done to present a greater understanding of not only Hawaiian culture but of Hālawa itself.

Community workdays

We have established work and educational programs that continue to broaden awareness of this special valley. Over the past 17 years, community organizations, groups and individuals have utilized Hālawa Valley through NKNKHI. Whether for educational, spiritual, or cultural reasons, workdays involve our community. By request or invitation, organizations and individuals participate in our workdays to help clear brush and weeds around Native Hawaiian cultural and sacred sites and to help maintain Native Hawaiian gardens in Hālawa Valley.

Additionally, the stewards will continue to develop programs and materials that integrates the history of the H-3 struggles of the project area. This will include:

- Educating participants about the traditional history of the area
- Educating participants about the historic sites in the area
- Educating participants about the traditional uses of the area and offer participants the opportunity to mālama 'āina.
- Developing materials about the kūpuna who led the demonstrations to protect H-3

Some of the organizations that have participated in our educational, advocacy and service programs include:

- American Indian Science and Engineering Society
- Chaminade University of Hawai'i
- Girl Scouts of Hawai'i
- Hālawa Medium Security Facility, O'ahu Community Correctional Center (OCCC)
- Hawai'i Pacific University
- Hawai'i Tokai International College
- Hawaiian Trail and Mountain Club
- Honolulu Community College
- Ka Hale Ho'ala Hou No Nā Wāhine (TJ Mahoney Halfway House for Women)
- Kailua Women's Correctional Facility
- Kamehameha Schools
- Kapi'olani Community College
- Lyon Arboretum
- Paepae O He'eia
- State Department of Education
- University of Hawai'i at Mānoa
- Hawai'inuiākea School of Hawaiian Knowledge (Centers for Hawaiian Studies and Hawaiian Language)
- Kua'ana Student Services
- Mālama I Nā Ahupua'a Service-Learning Program/College of Social Sciences

3.6 Financial Plan

Current Financial Status

NKNKHI is currently experiencing a funding slump due to COVID-19 and other issues pertaining to access and the restrictions on the number of people allowed to work together in the valley at this time. We are in the process of forming partnerships and starting a facebook fundraiser page for NKNKHI. It will be similar to a fundraiser that was done by a local hālau on Maui that was very successful. All of these funds would be utilized for startup and maintenance on our future support facilities scheduled to be completed by the end of 2021.

Our projected financial status will be much improved when COVID-19 restrictions are over. We will be able to facilitate groups and more substantial fundraising efforts. Additionally, we are forging a new partnership with an 'Ewa based hālau which will increase our reach and access to community members and organizations who will be contributing to our project. We have already discussed several funding opportunities including conducting an annual fundraiser. Our partnering hālau will help to setup and run these fundraisers.

Past Fundraising Efforts

We have previously applied for and received grants from OHA and Hawai'i Tourism Authority. In 2014-2015 we were awarded grants totaling \$80,000.

Future Fundraising Plans

Short Term:

We plan to have a donation drive online similiar to Hālau Kealaokamaile (<https://www.kealaokamaile.com>). They had a very successful campaign and have secured nealry 2 million dollars for construction of their hālau. We would be doing something very similar and it would be focused on funding the startup and maintenance costs of our support facilities.

Long Term:

We have partnered with Kumu Hula Tatiana Tseu Fox and her hālau Nā Lei O Ka 'Iwa Ha'a I Ka Lani (<https://www.facebook.com/naleiokaiwa>) They are an 'Ewa based hālau run under Hui 'Iwa Academy with the Tseu 'ohana. They also created Kawehiokalani Inc., which is an organization that supports non-profits in organizing and planning large scale events. This partnership will be a tremendous asset for us.

We will have a shared annual fundraiser with our hālau partner. We also plan to have community workshops, classes, and plant sales in the future. These will be part of a larger community effort to expand cultural content and 'āina based projects that will help to fund and maintain our project.

We are planning to apply for the Kulia Grants and/or Community Grants offered by OHA that are accepting applicants this year (2021), anticipated funding would be awarded by July 2022. We have qualified and were awarded grants from OHA in the past. They were administered and run by a third party which cut into some of the available funds. We are currently looking for a grant administrator to work with us to reduce third party administrative costs and further expand our funding opportunities. We will also be better able to cash match for additional grants with our increased revenue from other sources such as the annual fundraiser and donation drive.

Information on OHA Grant Programs: <https://www.oha.org/grants>

1. **Kulia Grants – awards \$25,000-\$100,000 – covers programmatic costs (see last year’s solicitation for details)**
 - a. FY22/23 Solicitations - To Be Announced (last year’s awards were not issued due to COVID-19 so there is extra funding available)
 - b. Applications due October/November
 - c. Awards selected April
 - d. Contracts executed July

2. **Community Grants – awards up to \$500,000 – covers programmatic costs (see last year’s solicitation for details)**
 - a. FY22/23 Solicitations - To Be Announced
 - b. Applications due December/January
 - c. Awards Selected April
 - d. Contracts executed July

Additional Grant Opportunity Resources:

- **Hawaii Community Foundation:** <https://www.hawaiicommunityfoundation.org/nonprofits16>
- **Kamehameha Schools:** <https://www.ksbe.edu/imua/newsreleases/kamehameha-schoolsinvests-24-million-in-community-programs-projects/>
- **DLNR-DOFAW:** <https://dlnr.hawaii.gov/forestry/lap/kaulunani/grants/>
- **State of Hawaii Grant-in-Aid:** <https://www.capitol.hawaii.gov/GIA/GIA.aspx>
- **National Science Foundation:** https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=11690

Gaps in Funding

Gaps in NKNKHI funding will be at our outset but will likely be covered by our initial fundraising campaign set to begin online this year. It will reach out to our local community and Hawaiian cultural contacts to garner support for our project. Our options are currently limited due to current COVID-19 restrictions on travel and gatherings. In the long term, other gaps may arise but will be mitigated by our community support and connections, and the ability to gather more people when needed to assist us.

Future Surplus Income

Surplus income will be saved for planned maintenance and future improvements. Once we have a more stable economic outlook, we will be setting aside funding for planned as well as emergency repairs. Any surplus beyond these funds can be reinvested into expanding our project capacity in the form of programs and events to bring together our community which will further increase our reach and funding potential.

Estimated 5-Year Annual Budget

Table 14. NKNKHI Estimated 5-Year Annual Budget

Nā Kūpuna a me Nā Kāko’o o Hālawā		
Revenue	Annual Estimate (Years 1-3)	Annual Estimate (Years 4+)
Donations	\$500	\$1,000
Fundraising	\$5,000	\$5,000
Grants	\$20,000	\$20,000
Total Revenue	\$25,500	\$26,000
Expenses	Annual Estimate (Years 1-3)	Annual Estimate (Years 4+)
Equipment Maintenance	\$1,000	\$1,000
*Facility Maintenance	\$5,000	\$8,000
Total Expenses	(\$6,000)	(\$9,000)
Estimated Annual Surplus	\$19,500	\$17,000
*Amount is higher than CPE estimates provided to HLID, see section 6.2.1		

3.7 Holomua (moving forward)

Future Expansion Protocols

The SMP is a reflection of current program activities and planned support facilities. As NKNKHI expands their programmatic and financial capacity to host activities within the designated project areas, this document will need to be updated to reflect those changes. It is anticipated that the HLID project will end when the support facilities are completed at the end of 2021. Therefore, it is important to outline a process that HDOT and NKNKHI can follow to allow for future expansion of programs listed within Section 3, including the potential for additional support features/facilities to be placed within the project areas described in section 2.2.1.

3.7.1 Envisioned Activities/Features

Some of the activities and supporting features that NKNKHI has envisioned over the years and which align with the 2008 IDP vision for mitigation objectives (addressing impacts and recommendations) include:

- Community events (possibly as fundraisers) such as:
 - Celebration of life
 - Hō'ike (student exhibitions of learning)
 - Weddings
 - Cultural performances (small musical performances, hula, etc.)
 - Cultural education (classes) particularly linked to Hālawā's traditions - such as birthing and healing practices, artwork, and all kinds of cultural practice workshops
- Cultural tours and activities that tourists pay to participate in - including hosting groups from hotels in a new form of cultural eco-tourism that may include facilitation of:
 - Group workdays
 - Weddings
 - Cultural performances (hula, story-telling, etc)
- Additional supporting features/activities envisioned for the future:
 - Pā hula (hula mound) for hālau performances
 - Earth mound of about 30x50 feet, three or four feet tall, faced with stones within existing area previously disturbed in modern times (would not involve sub-surface disturbance)
 - Plant propagation to sell (or exchange of labor) to cultural practitioners
 - 'Awa (traditional crop for Hālawā)
 - Medicinal plants
 - Ti Leaves
 - Expansion of classes for DOE, higher education, visiting short term classes or an immersion school

3.7.2 Approval Process

Substantial improvement, alterations and/or additions shall be permitted if carried in a manner consistent with the terms and conditions set forth in the SMP. NKNKHI shall first submit its plans and specifications therefore to HDOT for approval. HDOT shall review the plans and specifications in a timely manner and shall respond to NKNKHI noting its approval or denial of said plans within 30 days of receipt. Plans and specifications shall not be denied absent just cause. Any plans and specification shall be in full compliance with all applicable statutes and rules and regulations. HDOT may impose reasonable conditions on its approval.

Any improvements, alterations or additions consistent with the SMP that are determined not to be the financial responsibility of either HDOT or FHWA for Section 106 compliance shall be accomplished at the cost of HLID, unless otherwise specified and agreed upon in writing by HDOT and the Stewards prior to the termination of HLID's responsibilities. HDOT reserves the right to require removal of any improvement, addition, alteration, fixtures and/or equipment with at least 30 days written notice to NKNKHI which grants a reasonable timeframe to remedy such request.



4. GRAPHIC MASTER PLAN FOR THE BUILT ENVIRONMENT

4.1 Intro

The built environment includes both facilities and actions on the property that will physically alter the site in some way. The actions and approximate location to support facilities that both HDOT and NKNKHI will be responsible for are illustrated in Figures 18 and 19 below, and further described in the following section 4.2.

Figure 18: Conceptual Plan for Proposed Support Facilities

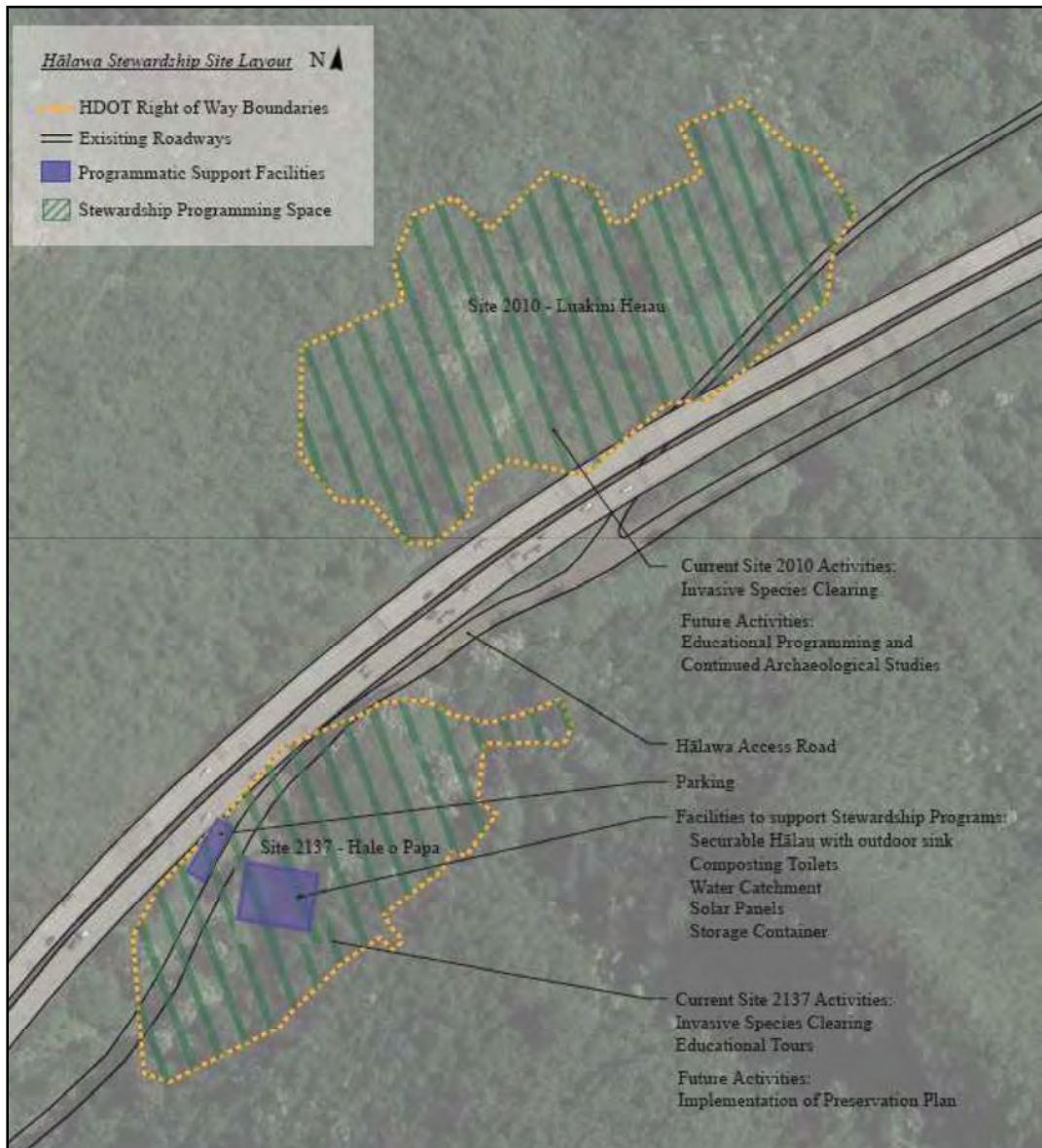
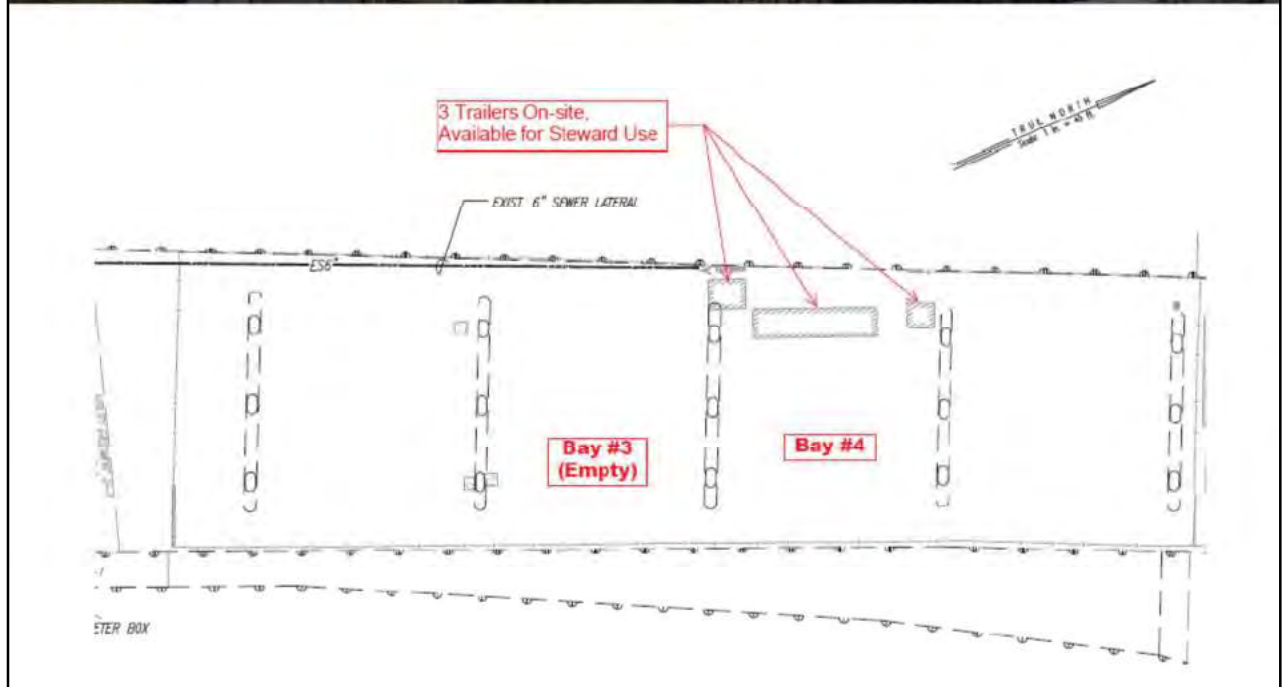


Figure 19: Under the Viaduct Support Existing Facilities



4.2 Facilities and Access

At this time, one portable toilet and one storage container are situated along the Hālawā Valley Access road to support the current stewardship programming activities at Site 2137. These facilities will be replaced or upgraded with semi-permanent facilities to include a gravel parking lot, 2 (composting or incinerator) toilets, a securable hālau, water catchment with an outdoor sink, solar electricity, and an additional storage container. The two storage containers will be situated under a roof to capture rainwater for the water catchment and provide additional covered work preparation space.

The 3rd and 4th Bays “Under the Viaduct” will provide space for additional parking, a trash receptacle, and 2 additional storage containers. The Stewards will utilize the existing administrative/office trailer and additional storage structures. The existing structures will be vacated by HDOT and all HDOT storage items will be removed. After HDOT has vacated, the Stewards will inspect the structures and provide requested modifications/repairs for the interior/exterior to support their programmatic needs. HLID will be responsible for the costs of these approved modifications/repairs.

A feasibility study was done by Community Planning & Engineering, Inc., a contractor of the HLID project that assessed various alternatives for support facilities that would best serve the needs of the selected stewards and their programming. This study helped to inform the short and long term planning for the site and it was determined that the most effective use of HLID project funds and resources would be to pursue the modest support facilities as described above. CP&E would provide the design and permitting for this installation.

With regard to access ways, HDOT shall be responsible for the integrity, safety, and maintenance of the Hālawā Access Road (Trailblazer Road) and associated bridges. HDOT shall grant use of the access road to NKNKHI to accommodate the recommended actions for mitigation agreed upon by all parties to the IDP and support the programming activities outlined by the Stewards within this document. The trails located on site 2010 and 2137 which are currently utilized by the stewards are only accessible by foot traffic.

4.2.1 Structures, Fixtures, & Equipment Inventory

Any structures, fixtures, and equipment (ie: mobile office trailer, storage container, office desk, benches, etc) purchased with HLID funds will be considered HDOT property and remain on HDOT’s inventory list unless agreed upon in writing by both parties. HLID will provide NKNKHI and HDOT a complete inventory list upon completion of the construction phase and prior to close-out of HLID.

NKNKHI will be responsible for maintaining inventory records and periodic reporting to HDOT. Frequency of the inventory reports shall be coordinated with the designated HWY-O Area Inspector prior to the close-out of HLID.

If NKNKHI decides to discontinue stewardship activities and terminate their revocable permit with HDOT at any time in the future, or upon written agreement by all parties required to terminate the revocable permit as described in section 5.6.11.1.11 Termination (FHWA, SHPO, OHA), all items on the inventory list will be returned to HDOT management and verified by the HWY-O Area Inspector.

Any equipment purchased by NKNKHI for stewardship activities shall remain property of NKNKHI. HLID recommends that the organization maintain and verify their own inventory list on a regular schedule. All NKNKHI inventory shall be removed if the revocable permit is ever terminated as described above, or as described in section 5.6.11.1.9 Improvements, Alterations or Additions.



5. PERMITTING REQUIREMENTS

Based on the Feasibility Study completed by CPE, there may possibly be several Federal, State, and City and County of Honolulu permits and approvals that need to be obtained to complete different elements of the work envisioned for the property area. The permits and approvals listed below may be required for the proposed project and have also been listed in the Feasibility Study completed by CPE (Community Planning and Engineering, Inc., 2019). Further consultation with the permitting agencies will be done in the design phase to determine if the permit/approval is required based on the chosen site layout and project elements. It is assumed that the nearby streams would not be altered. However, if the streams are altered, additional federal and local permits would be required.

The intent of this section is to articulate regulations and permitting requirements that may be applicable to the project.

5.1 Federal Regulations

Federal regulations are not always applicable to a project. A “federal nexus” is required before federal regulations need be applied to an individual project activity. While the original H-3 project was completed with federal funding, not all the activities to be completed under this SMP will require the use of federal funds.

Unless a specific activity falls under the jurisdiction of a specific federal agency, the activity may not trigger federal review if no federal funds are utilized. Therefore, it is prudent to review activities on a case-by-case basis to determine exactly which regulations apply. The following section provides a comprehensive listing of regulations that may be applicable to program

5.1.1 Clean Water Act

Section 301(a) of the Clean Water Act (CWA) prohibits the discharge of pollutants into “navigable waters” except in compliance with sections 402, 404, and certain other provisions. Navigable waters are defined in section 502(7) as “waters of the United States, including the territorial seas.” “Waters of the United States” are in turn defined as regulation to include wetlands which are adjacent to water bodies which are themselves waters of the United States (e.g., wetlands adjacent to tidal waters, wetlands adjacent to traditionally navigable waters, wetlands adjacent to tributaries of those waters, etc.) and isolated wetlands whose use, destruction, or degradation could affect H-3 commerce (40 CFR §230.3(s)). The term “wetlands” is defined by regulation to mean “those areas which are inundated or saturated at a sufficiency and duration to support, and which under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions” (40 CFR §230.3(t)).

In addition to the prohibition of section 301(a), other CWA requirements application to “navigable waters,” like the development of water quality standards under section 303, water quality management planning under sections 208 and 303(e), enforcement under section 309, etc., also apply to those wetlands which are “waters of the United States.”

Section 101(a) of the CWA defined the national goal of restoring and maintaining the chemical, physical and biological integrity of the Nation’s waters. Section 303(a)(4) of the CWA explicitly refers to satisfaction of the antidegradation requirements of 40 CFR 131.21 prior to taking various actions, which would lower water quality. The Environmental Protection Agency (EPA) Region 9 antidegradation guidance specifies: “The first step in any antidegradation analysis is to determine whether or not the proposed action will lower water quality... If the action will not lower water quality, no further analysis is needed, and EPA considers 40 CFR 131.12 to be satisfied.”

5.1.1.1 Section 401

The purpose of § 401 of the CWA is for states to use its process to ensure that no federal license or permit authorizes an activity that would violate the state's water quality standards or become a future source of pollution. A § 401 Water Quality Certification (WQC) covers construction, operation, maintenance and decommissioning of a proposed project, and conditions of the WQC become conditions of the federal license or permit.

5.1.1.2 Section 404

CWA Section 404 establishes a program to regulate the discharge of dredged and fill material into waters of the United States, including wetlands. The U.S. Army Corps of Engineers (USACE) and EPA share responsibility for administering and enforcing Section 404. USACE administers the day-to-day program, including individual permit decisions and jurisdictional determinations; develops policy and guidance; and enforces Section 404 provisions. EPA develops and interprets environmental criteria used in evaluating permit applications, identifies activities that are exempt from permitting, reviews/comments on individual permit applications, enforces Section 404 provisions, and has authority to veto USACE permit decisions.

Section 404 requires a Department of the Army (DA) permit, issued by the Corps on behalf of the Office of the Secretary of the Army, prior to the discharge of dredged or fill material into any waters of the United States, including wetlands. Discharges of fill material generally include, but are not limited to: placement of fill necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; dams and dikes; artificial islands; property protection or reclamation devices such as riprap, groins, sea walls, breakwaters, and revetments; beach nourishment; levees, fill for intake and outfall pipes and subaqueous utility lines; fill associated with the creation of ponds; and other work involving the discharge of dredged or fill material. A DA permit is required irrespective of whether the work is permanent or temporary.

5.1.2 Endangered Species Act

The Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531-1544, 87 Stat. 884, as amended) requires the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) to identify plant and animal species that are threatened or endangered since "...various species of fish, wildlife, and plants in the United States have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation; other species of fish, wildlife, and plants have been so depleted in numbers that they are in danger of or threatened with extinction; these species of fish, wildlife, and plants are of aesthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people; the United States has pledged itself as a sovereign state in the international community to conserve to the extent practicable the various species of fish or wildlife and plants facing extinction..." Federal agencies are required to assess the effect of any project on threatened and endangered species under Section 7 of the ESA.

Nearly all marine waters, as well as the lower reaches of many freshwater streams, within the Corps' jurisdiction are occupied by ESA-listed marine species. Because the Proposed Action will occur within, near, or upstream of the marine environment, it has the potential to impact ESA-listed marine animals and their habitats across the Program's geographic area.

5.1.2.1 Section 7

Section 7 of the ESA requires Federal agencies to ensure that actions they authorize, fund, or carry out do not jeopardize the existence of any species listed under the ESA, or destroy or adversely modify designated critical habitat of any listed species. Thus, Section 7 requires consultation by the Federal 'action agency' (the agency authorizing, funding, or carrying out the action) with the appropriate regulatory agency, either the NMFS for marine species, or the USFWS for terrestrial and freshwater species.

5.1.2.1.1 Endangered Species Act, Section 7 Consultation

Federally funded programs at the state and local level, such as some habitat restoration projects, require a Section 7 consultation process, which includes a biological assessment. Each federal agency must ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species in the wild, or destroy or adversely modify its critical habitat.

5.1.3 Rivers and Harbors Act

The Rivers and Harbors Act address projects and activities in navigable waters and harbor and river improvements. Several of these Acts provided a number of regulatory authorities, the implementation of which has evolved over time. This profile addresses only those sections that relate to the Corps Regulatory program.

The activities identified and authorized under the Proposed Action and program are likely to trigger the need for authorization by the USACE Honolulu District, which is responsible for overseeing and permitting certain activities regulated under Section 10 of the Rivers and Harbors Act of 1899 (Section 10). Structures or work in, above, or beneath navigable waters of the United States require a DA permit under Section 10 prior to the commencement of work. The law applies to any dredging or disposal of dredged materials, excavation, filling, rechannelization, or any other modification of a navigable water of the United States, and applies to all structures, from the smallest floating dock to the largest commercial undertaking.

5.1.3.1 Section 10

Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) prohibits the unauthorized obstruction or alteration of any navigable water of the United States. This section provides that the construction of any structure in or over any navigable water of the United States, or the accomplishment of any other work affecting the course, location, condition, or physical capacity of such waters is unlawful unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of the Army. The Secretary's approval authority has since been delegated to the Chief of Engineers.

5.1.4 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (16 U.S.C. 703-712) protects many species of migratory birds. Specifically, the act prohibits the pursuit, hunting, taking, capture, possession, or killing of such species or their nests and eggs. An activity will be determined to have a significant adverse effect when it is found within a reasonable period of time to diminish the capacity of a population of a migratory bird species to maintain genetic diversity, to reproduce, and to function effectively in its native ecosystem.

5.1.5 Fish and Wildlife Coordination Act

The purpose of the Act is to recognize the contribution of wildlife resources to the Nation, the increasing public interest and significance thereof due to expansion of our national economy and other factors, and to provide that wildlife conservation receives equal consideration and be coordinated with other features of water-resources development programs (16 U.S.C. 661). The terms “wildlife” and “wildlife resources”, as used in this Act, “include birds, fishes, mammals and all other classes of wild animals and all types of aquatic and land vegetation upon which wildlife is dependent” (16 U.S.C. 666(b)). The Secretary of the Interior, through the USFWS is authorized to assist and cooperate with Federal, state, and public or private agencies and organizations in the conservation and rehabilitation of wildlife. NMFS provides similar assistance and cooperation for wildlife species under the management responsibilities of the Department of Commerce). 16 U.S.C. 662(a) provides that whenever the waters of any stream or other body of water are proposed to be impounded, diverted, the channel deepened or otherwise controlled or modified, the Corps shall consult with the USFWS, NMFS as appropriate, and the agency administering the wildlife resources of the state. The consultation shall consider conservation of wildlife resources with the view of preventing loss of and damages to such resources as well as providing for development and improvement in connection with such water resources development.

5.1.5.1 Fish and Wildlife Coordination Act Compliance

Under the Fish and Wildlife Coordination Act, USACE would be required to first consult with the USFWS and, the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service, as well as with state fish and wildlife agencies regarding the impacts on fish and wildlife resources and measures to mitigate these impacts.

5.1.6 Federal Coastal Zone Management Act

The Federal Coastal Zone Management Act of 1972 (CZMA) (as amended 16 U.S.C. 1451, et seq.,) excludes Federal lands from the coastal zone. However, Federal agencies that conduct activities directly affecting the zone must ensure that the activity is consistent with the Hawai'i Coastal Zone Management Program (CZM). The CZM (HRS Chapter 205A), which is administered by the Department of Business, Economic Development and Tourism, Office of Planning, regulates public and private uses in the coastal zone. The objectives and policies of the program consist of providing recreational resources; protecting historic and scenic resources and the coastal ecosystem; providing economic uses; reducing coastal hazards; and managing development in the coastal zone. The CZM designates special management areas in the coastal zone, which are subject to special controls on development. These areas extend inland from the shoreline and are established by the county.

5.1.6.1 Coastal Zone Management Consistency Statement

The CZM intends to issue a CZMA federal consistency general concurrence for minor federal permit activities for Hawaiian fishpond restoration, repair, maintenance, and reconstruction in the State of Hawai'i. The general concurrence is being established in response to Senate Resolution No. 86, adopted by the Hawai'i State Legislature on April 10, 2012, which urges the Department of Land and Natural Resources, Department of Health, and Office of Planning to streamline the permitting process for the restoration of Hawaiian fishponds. The resolution also requests the Office of Planning to consider “a coastal zone management program consistency statement for Hawaiian fishponds.”

CZMA federal consistency regulations (15 CFR Part 930) establish procedures for States to issue general concurrences (15 CFR §930.53(b)) allowing similar minor work in the same geographic area to avoid repeated review of minor federal license or permit activities which, while individually inconsequential, cumulatively affect any coastal use or resource. Federal permit activities which satisfy the conditions of the general concurrence are not subject to the consistency certification and review requirements of 15 CFR Part 930, Subpart D - Consistency for Activities Requiring a Federal License or Permit.

5.1.7 National Historical Preservation Act

The NHPA establishes preservation as a national policy and directs the Federal government to provide leadership in preserving, restoring, and maintaining the historic and cultural environment of the Nation. Preservation is defined as the protection, rehabilitation, restoration, and reconstruction of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, or engineering. The Act authorizes the Secretary of the Interior to expand and maintain a national register of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology and culture, referred to as the National Register.

Federal agencies having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking shall take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. Federal agencies shall afford the ACHP a reasonable opportunity to comment on each undertaking (Section 106 (16 U.S.C. 470f)). In addition, Federal agencies shall assume responsibility for the preservation of historic properties that are owned or controlled by the agencies. They also shall establish a program to locate, inventory, and nominate all properties under the agency's ownership or control that are eligible for inclusion on the National Register (Section 110(16 U.S.C. 470h-2)).

Cultural resources include prehistoric and historic artifacts, archaeological sites (including underwater sites), historic buildings and structures, and traditional resources (such as Native American and Native Hawaiian religious sites). Cultural resources of particular concern include properties listed in or eligible for inclusion in the National Register of Historic Places (National Register). Section 106 of the NHPA (16 U.S.C. 470 et seq.) requires Federal agencies to take into consideration the effects of their actions on significant cultural properties. Implementing regulations (36 CFR 800) specify a process of consultation to assist in satisfying this requirement. To be considered significant, cultural resources must meet one or more of the criteria established by the NPS that would make that resource eligible for inclusion in the National Register. The term "eligible for inclusion in the National Register" includes all properties that meet the National Register listing criteria specified in Department of Interior regulations at 36 CFR 60.4. Resources not formally evaluated may also be considered potentially eligible and, as such, are afforded the same regulatory consideration as listed properties. Whether prehistoric, historic, or traditional, significant cultural resources are referred to as historic properties.

5.1.7.1 National Historical Preservation Act, Section 106 Compliance

Section 106 of the NHPA addresses the need for federal agencies to take into account impacts, if any, that undertakings have on historic properties. Protection of Historic Properties and Section 106 analysis are regulated under 36 CFR Part 800. This part provides guidelines as to conducting an analysis in assessing when and how to undergo Section 106 review.

The first step in initiating the Section 106 process constitutes determining whether or not a proposed Federal action is an undertaking as defined in 36 CFR §800.16(y), which states: "*Undertaking* means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; and those required a Federal permit, license or approval."

Any activity that used federal funding may be determined that this proposed action is an undertaking as defined in §800.16(y), although any activities associated with the 1987 MOA should be covered by that agreement.

NHPA Section 106 requires the agency to “take into account the effect of (an) undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register (of Historic Places.)” 16 U.S.C. § 470f. NHPA section 101(d)(6)(B) requires agency officials to consult with any NHO that attaches religious and cultural significance to historic properties that may be affected by an undertaking, regardless of the location of the property. 36 CFR §800.16 provides the following definition of a “historic property”:

(l)(1) Historic property means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NHRP) maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or NHO and that meet the National Register criteria.

There may be sites within the geographic area that would meet this definition of historic properties, including, but not limited to: sites related to traditional Hawaiian navigation and other seafaring traditions, traditional Hawaiian fishponds, ko'a (traditional Hawaiian fishing shrines typically consisting of piles of coral or stone), Hawaiian heiau (religious structures), Native Hawaiian burial sites, leina (places from which spirits leapt into the spirit world), and other cultural heritage properties. NHPA section 106 requires an agency to make a reasonable and good faith effort to identify historic properties, determine whether identified properties are eligible for listing on the National Register, assess the effects of the undertaking on any eligible historic properties found, determine whether the effect will be adverse; and avoid or mitigate any adverse effects. To this end, NHPA regulations require an agency to provide a NHO, as a consulting party, with “a reasonable opportunity to identify its concerns about historic properties, advise on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, articulate its views on the undertaking’s effects on such properties, and participate in the resolution of adverse effects” 36 CFR § 800.2(c)(2)(ii)(A).

Section 106 of the NHPA (16 U.S.C. 470 et seq.) requires Federal agencies to take into consideration the effects of their actions on significant cultural properties. Implementing regulations (36 CFR 800) specify a process of consultation to assist in satisfying this requirement. To be considered significant, cultural resources must meet one or more of the criteria established by the NPS that would make that resource eligible for inclusion in the National Register. The term “eligible for inclusion in the National Register” includes all properties that meet the National Register listing criteria specified in Department of Interior regulations at 36 CFR 60.4. Resources not formally evaluated may also be considered potentially eligible and, as such, are afforded the same regulatory consideration as listed properties. Whether prehistoric, historic, or traditional, significant cultural resources are referred to as historic properties.

NHPA defines an historic property as follows:

...any Pre-European contact or historic district, site, building, structure, or object included in, or eligible for listing on the National Register, including artifacts, records, and material remains related to such a property or resource (46 CFR 800, as amended 2006, Title III, Section 301, #5).

The term “historic property” is used in the sense defined here throughout this document.

The criteria for evaluating eligibility for listing on the NRHP are as follows: The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association, and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of persons significant in our past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. That have yielded, or may be likely to yield, information important in prehistory or history (National Parks Service [NPS] 1997).

To qualify for protection under NHPA, a cultural resource must meet the rigorous criteria for National Register eligibility, thereby qualifying as an historic property.

If a cultural resource can be demonstrated to meet the criteria for listing on the NRHP, it qualifies as an historic property, and impacts to that historic property must be avoided or mitigated appropriately. Historic properties are protected from both indirect and direct effects. Indirect effects diminish some significant aspect of the historic property, but do not physically alter it. Direct effects physically alter the historic property in some way. The APE is the area within which the proposed undertaking has the potential to either directly or indirectly impact historic properties that may be present. If an effect on an historic property is identified within the APE, consulting parties must agree on whether the effect is adverse. If an effect is adverse, either avoidance of the effect or mitigation for the effect is required under NHPA.

5.1.8 National Environmental Policy Act Compliance

The Corps' permit regulation (33 CFR 320-330) provides that general permits can be issued only for activities that are substantially similar in nature, and that cause only minimal individual or cumulative adverse environmental impact. Based on a preliminary assessment of the impacts of the general permit, the District Engineer may make a determination that issuance of the general permit would not result individually or cumulatively in a significant effect on the natural or human environment. Therefore, under the provisions of the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347) a Federal EIS would not be prepared.

5.2 State and County Permits and Authorizations

Depending on the nature of activities progressed by NKNKHI and HDOT, a range of various permits may be required.

5.2.1 State of Hawai'i, Department of Health, Compliance Branch

The State of Hawai'i Department of Health (DOH) Compliance Assistance Branch does not have permitting requirements but provides guidance to which agency within DOH should be consulted based on the scope of the proposed work.

5.2.2 State of Hawai'i, Department of Health, Clean Water Branch Requirements

The DOH Clean Water Branch (CWB) administers the CWA § 401 WQC. The State of Hawai'i § 401 WQC is further administered by HAR § 11-54. Under these administrative rules, activities like those proposed under this program that are minor and non-controversial are eligible for a waiver from water quality certification requirements. Specifically, HAR § 11-54-9.1.04 (b) states: "If the discharge resulting from an activity receives a determination to be covered under a nationwide permit authorization, thereby fulfilling specific conditions of that permit pursuant to 33 CFR Sections 330.4, 330.5, and 330.6 then the [State of Hawai'i] Director of Health will determine, on a case-by-case basis, which projects are considered minor and non-controversial. Certification requirements of section 11-54-9.1 shall be waived for minor and non-controversial activities within one year of receipt of a complete water quality certification application."

5.2.2.1 National Pollutant Discharge Elimination System

The DOH CWB has a responsibility to protect Hawaii's coastal and inland water resources. A National Pollutant Discharge Elimination System (NPDES) permit from the CWB is required before any discharge of flow is released into State waters. Either a general or individual NPDES permit may be required for the discharge of dewatering effluent, storm water, or wastewater. A Notice of Intent must be submitted to the CWB a response shall be received within thirty days.

5.2.2.2 Section 401 Water Quality Certification

The DOH CWB is authorized under Section 401 of the Federal CWA to administer the Section 401 WQC program in Hawai'i. A WQC is required to apply for a Federal license or permit to conduct any activity including but not limited to the construction or operation of facilities which may result in any discharge into nearshore or inland waters.

Some activities including maintenance, utility line activities, temporary construction, and dewatering may be granted coverage under the Blanket Section 401 WQC developed by the 2012 Department of the Army NWP file number WQC0804.

5.2.3 State of Hawai'i, Department of Health, Wastewater Branch

5.2.3.1 Plans Approval

DOH Wastewater Branch is responsible for the review and approval of planning/environmental documents, wastewater project plans and specifications, final construction inspections of wastewater projects, and assisting in enforcement activities in the joint Federal-County-State Wastewater Construction Grants Program, the State Revolving Fund Program, and for regulating wastewater systems in accordance with Administrative Rule, Chapter 11-62, entitled, "Wastewater Systems."

5.2.3.2 Individual Wastewater System Permit

A State Department of Health Individual Wastewater System permit is required to construct a new individual wastewater system. This permit involves owner, engineer, and contractor certifications/inspections, a site evaluation, percolation tests, approval of construction, site, and floor plans, approval of an operations manual, and approval of a sludge disposal plan.

5.2.4 Department of Health, Sanitation Branch

5.2.4.1 Application for Food Establishment

A Food Establishment Permit is required to operate a food establishment. This permit is valid for one year and the establishment is subject to DOH inspections. Items in the application may include plans and specifications of the food establishment, a list of food items to be offered, a Hazard Analysis and Critical Control Point plan, and an operational agreement between a food establishment and a support kitchen, if applicable.

Alternatively, a Special Events Permit may be obtained if food is produced specifically for a special event. The operations cannot exceed 31 days over a 365-day period.

If hand-pounded poi is exclusively produced, the activity would be exempt from needing a Food Establishment Permit. However, the site would need a sink on-site, need food labels, and the poi would need to be directly sold to the consumer.

Commercial imus are also subject to specific DOH requirements if constructed.

5.2.5 Department of Land and Natural Resources, Office of Conservation and Coastal Lands

The Office of Conservation and Coastal Lands (OCCL) oversees the management of the state's inventory of conservation lands.

5.2.5.1 Conservation District Use Permit

The North Hālawā Valley Project Area is situated within a state conservation district, this zoning *may* limit some program activities. OCCL should be consulted during the planning process.

Conservation District Use Permits (CDUP) are required for all land uses taking place in the State Land Use Conservation District. This includes all submerged lands out to three miles. Conservation regulations and permitting procedures are covered in HAR § 13-5, as authorized under HRS § 183C-3. Pursuant to HAR § 13-5, Land Use means:

1. The placement or erection of any solid material on land if that material remains on the land more than thirty days, or which causes a permanent change in the land area on which it occurs;
2. The grading, removing, harvesting, dredging, mining, or extraction of any material or natural resource on land;
3. The subdivision of land; or
4. The construction, reconstruction, demolition, or alteration of any structure, building, or facility on land.

5.2.6 Department of Land and Natural Resources, Division of Forestry and Wildlife

Any activity will require review by the Division of Forestry and Wildlife to ensure that the activities do not adversely impact protected species in violation of HRS 195-D.

5.2.7 State of Hawai'i, Department of Land and Natural Resources, State Historic Preservation Division

These activities are subject to HRS Chapter 6E. HDOT will need to obtain concurrence from SHPD that the activities proposed will have no adverse effect on historic properties. This is best managed during the CDUP process.

5.2.9 State of Hawai'i, Disability and Communication Access Board

The Board's primary functions are to:

- Serve as a public advocate of persons with disabilities by providing advice and recommendation on legislation, rules, policies, procedures (i.e., Grant Endorsements), and plans relating to persons with disabilities and their civil rights or service needs.
- Establish guidelines for the design of buildings and facilities by or on behalf of the State or the counties in accordance with Hawai'i Revised Statutes, §103-50; approve sitespecific designs where an alternate design provides equal or greater access.

5.2.9.1 Plan Review

State of Hawai'i Disability and Communication Access Board reviews and provides recommendations on all State and County plans and specifications for buildings, facilities, and sites, as required under Hawai'i Law HRS Chapter 103-50, in order to ensure that they are designed and constructed to be accessible to persons with disabilities.

5.2.10 State of Hawai'i, Office of Environmental Quality Control

5.2.10.1 Hawai'i Environmental Policy Act

Due to the use of state funds, state-owned land, and conservation lands, a State of Hawai'i EA may be required for the construction phase of the project. While HRS 343 is triggered by these actions, it would need to be determined by all parties if the actions are exempt from HRS 343 requirements, subject to an EA, or if an EIS is required.

If an EA would not be required per statutory exemption - HRS 343-5.5 reads:

- (a) Notwithstanding any other law to the contrary, for any primary action that requires a permit or approval that is not subject to a discretionary consent and that involves a secondary action that is ancillary and limited to the installation, improvement, renovation, construction, or development of infrastructure within an existing public ROW or highway, that secondary action shall be exempt from this chapter; provided that the applicant for the primary action shall submit documentation from the appropriate agency confirming that no further discretionary approvals are required.

None of the priority activities require a permit or approval subject to discretionary consent (as opposed to ministerial consent). All activities are limited to development of infrastructure within an existing public ROW and therefore are exempt from HRS Chapter 343.

The EA, if needed, would be carried out by the Prime Contractor. An EIS is not expected at this time. However, a Cultural Impact Assessment (CIA) may be required to be done in conjunction with the EA as part of Act 50, SLH 2000. The CIA will be carried out by the archaeological contractor operating under a separate contract from the Prime. Any archaeological information required for the EA will be submitted to the Prime by the archaeological contractor. HLID requires that meetings take place between the archaeological contractor and the EA team (organized by the Prime) to facilitate information exchange. HLID will coordinate these meetings. This integrative approach to data sharing should minimize redundancy in all prepared reports/studies and allow for a more holistic understanding of the Project Areas. Wherever possible, HLID requires that the archaeological contractor ascertain “Traditional Ecological Knowledge” as defined by the USFWS. This pursuit will likely necessitate more community consultation than typically required for a CIA.

5.2.11 State of Hawai‘i, Department of Transportation, Highways

5.2.11.1 Revocable Permit

HDOT will issue NKNKHI a revocable permit for its activities within the Project Area. Special conditions of these permits will reference the 1987 MOA signed between HDOT, FHWA, SHPO, ACHP, and OHA to ensure compliance with Section 106 of the NHPA for the H-3 Project. The permit will automatically renew every 30 days; the terms for termination of either permit are further detailed within this section. Terms not specifically detailed below shall be subject to the standard terms and conditions set forth in HDOT revocable permits. Terms to be included in the permit are as follows:

5.2.11.1.1 Premises

Tax Map Key Number: (1) 99011002 (approximately 8.54 acres)
SIHP Site Number: 50-80-10-2137 and 50-80-10-2010
Under the Viaduct (Exact Bay to be determined)

5.6.11.1.2 Purposes

Steward natural and cultural resources on the premises per the obligations set forth under the 1987 MOA.

5.6.11.1.3 Rental

NKNKHI shall not pay rent for use of the property.

5.6.11.1.4 Security Deposit

NKNKHI shall not provide a security deposit.

5.6.11.1.5 Method of Payment

NKNKHI shall not pay rent for use of the property. Any recurring expenses associated with utilities and other charges specified at 5.6.11.1.7 shall be the sole responsibility of the Stewards to set-up and maintain. HLID will be responsible for the design, permitting, and installation cost of the hālau structure, compost toilets, water catchment, storage containers, and PV electricity system.

5.6.11.1.6 Reservation of Right to Amend the Terms and Conditions

The State retains the right to amend any of the terms and conditions of the permit. The 1987 MOA shall be referred to in any such instance to ensure continued compliance of mitigation responsibilities agreed to. Such an amendment of terms and conditions shall require approval in writing by NKNKHI.

5.6.11.1.7 Utilities and Other Charges

NKNKHI shall be responsible for and pay all recurring charges (maintenance/replacement costs) for utilities, garbage and trash disposal.

5.6.11.1.8 Repairs

NKNKHI shall, at its own expenses, keep and maintain the improvements in a condition similar to that which existed on the effective date of the Permit, ordinary wear and tear and damage by acts of God expected. NKNKHI shall, at its own expenses, maintain any facilities or structures in a condition similar to that which existed upon their installation, ordinary wear and tear and damage by acts of God expected.

5.6.11.1.9 Improvements, Alterations or Additions

Substantial improvement, alterations and/or additions shall be permitted if carried in a manner consistent with the terms and conditions set forth in the SMP. NKNKHI shall first submit its plans and specifications therefor to HDOT for approval. HDOT shall review the plans and specifications in a timely manner and shall respond to NKNKHI noting its approval or denial of said plans within 30 days of receipt. Plans and specifications shall not be denied absent just cause. Any plans and specification shall be in full compliance with all applicable statutes and rules and regulations. HDOT may impose reasonable conditions on its approval.

Any improvements, alterations or additions consistent with the SMP that are determined not to be the financial responsibility of either HDOT or FHWA for Section 106 compliance shall be accomplished at the cost of HLID, unless otherwise specified and agreed upon in writing by HDOT and the Stewards prior to the termination of HLID's responsibilities. HDOT reserves the right to require removal of any improvement, addition, alteration, fixtures and/or equipment with at least 30 days written notice to NKNKHI which grants a reasonable timeframe to remedy such request.

The granting or approval to install or construct improvements shall not constitute a representation or promise by the State that the Permittee's possession of the Premises under the Permit will (a) continue for any particular length of time, including without limitation, a sufficient period of time to reasonably amortize the cost of such improvements; or (b) that the State will be liable to compensate Permittee for any portion of the cost of such improvements including any reasonable request for their removal.

5.6.11.1.10 Property Taxes

The State shall pay all real property taxes lawfully assessed against the Premises.

5.6.11.1.11 Termination

The permit may be terminated by NKNKHI without cause upon thirty (30) days' advance written notice. The State may only terminate the permit with cause and with the written approval of FHWA, SHPO and OHA.

The occurrence of the following events shall constitute cause for termination under terms of the permit:

- a. the failure by NKNKHI to make a good faith and reasonable effort to cure any nonmonetary default for a period of no less than twelve (12) months after written notice from HDOT to NKNKHI detailing the non-monetary default and the method for remedying the default.

In the event of such a default under the Permit, the State may declare the Permit terminated with the written approval of FHWA, SHPO and OHA. In such event, and with written approval of FHWA, SHPO and OHA, the State shall have, in addition to all rights set forth in the Permit, all rights as a landlord as provided by law.

5.6.11.1.12 Attorney's Fees and Other Expenses

NKNKHI shall not be required to pay any State costs and expenses, under any circumstances.

5.6.11.1.13 Environmental Compliance

It shall be agreed that the expenses and costs associated with compliance with environmental laws shall be the responsibility of HLID, for the duration of HLID's existence, for any planning, design, construction, and building associated with the facilities and improvements identified in the SMP and Graphic Master Plan.

NKNKHI shall be responsible for compliance with environmental laws associated with its educational and cultural activities as described in the SMP.

5.2.11.2 Lane Use and Occupancy Permit

A HDOT Lane Use / Occupancy Permit is required if there is a need to occupy a lane for construction activities adjacent to or within the HDOT ROW. It shall be the responsibility of the contractor completing the work to obtain said permit.

5.2.11.3 Permit to Construct Within a State Highway

HDOT requires permits for the routine construction projects within the state highway ROW. This permit includes utility service connections, minor repairs, or minor adjustment of utilities. Permit applications are reviewed by the O'ahu District Office and require two sets of construction plans (including a traffic control plan), insurance, a minimum permit fee of \$10, minimum bond of \$1,000, and two sets of plans.

5.3 City and County of Honolulu Permitting

5.3.1 Department of Planning and Permitting

The State of Hawai'i Department of Health (DOH) Compliance Assistance Branch does not have permitting requirements but provides guidance to which agency within DOH should be consulted based on the scope of the proposed work.

5.3.1.1 Building Permit

According to Revised Ordinances of Honolulu Chapter 18, Section 18-3.1, a building permit is required for the following:

1. Erect, construct, enlarge, alter, repair, move, improve, remove, convert or demolish any building or structure;
2. Any electrical work;
3. Install, remove, alter, repair or replace any plumbing, fire sprinkler, gas or drainage piping work or any fixture, gas appliance, or water heating or treating equipment; or
4. Construct, reconstruct or improve any sidewalk, curb or driveway in any public street ROW.

5.3.1.2 Flood Determination in General Floodplain District

Prior to processing any development plans for approval, a request for flood determination within the project area shall be submitted to Department of Planning and Permitting (DPP). This will determine the flood hazard district requirements and may initiate a flood study to be conducted for the project site.

5.3.1.3 Grading Permit

Projects with grading in excess of 50 cubic yards of cut or fill or cut or fill of more than 3 feet would require a grading permit. Construction plans would have to be submitted to DPP for review and approval.

5.3.1.4 Grubbing Permit

Projects requiring clearing and grubbing of the site prior to any grading work being conducted will require a grubbing permit. Construction plans would have to be submitted to DPP for review and approval.

5.3.1.5 Storm Water Quality

DPP requires different levels of storm water quality measures depending on the project's area of disturbance. Prior to starting work, an Erosion and Sediment Control Plan may have to be developed. The Erosion and Sediment Control Plan is a plan to prevent and control erosion and sediment discharge from the construction site. Consultation with DPP would be required to determine classification of project area.

5.3.2 Department of Transportation Services

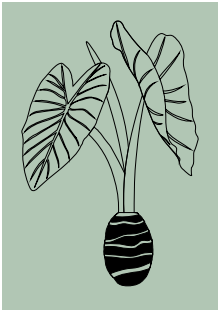
5.3.2.1 Street Usage Permit

A street usage permit is required for all work performed within the City and County of Honolulu ROW, parking on City and County of Honolulu roadways for construction related activities, and roadway closure for construction related activities. Some construction activities may be subject to a required traffic control plan. Permit fees are required only when construction obstructs or uses metered parking spaces including on-street parking and municipal parking lots.

5.3.3 Honolulu Fire Department (HFD)

5.3.3.1 Permit for Tank Installation

A permit or license shall be obtained from the Honolulu Fire Department's Fire Prevention Bureau to install or operate equipment in connection with the storage, handling, use, or sale of flammable or combustible liquids regulated, such as propane, for tanks with capacities of over 60 gallons.



6. SITE MAINTENANCE PLAN AND PROCEDURES

6.1 Grounds Maintenance by State and State Contractors

6.1.1 State of Hawai'i

The entire property area is owned by HDOT. It was acquired by the state during the construction of the H-3 project and now serves in its entity as a ROW. HDOT shall be responsible for the regular maintenance and repair of all structures on the property associated with the business of the State, including but not limited to access roads, bridges, the H-3, and stream activities.

6.1.1.1 Passive Preservation of Historic Sites

FHWA shall remain responsible for the passive preservation of the historic sites as specified in the 1987 MOA. It is unclear how or if FHWA's responsibilities identified above were delegated to HDOT or another party.

6.1.1.2 Active Preservation of Historic Sites

FHWA shall remain responsible for the active preservation of the historic sites as specified in the 1987 MOA. It is unclear how or if FHWA's responsibilities identified above were delegated to HDOT or another party.

6.1.1.3 Vegetation Maintenance

HDOT is responsible for the ongoing maintenance of vegetation in all areas where historic sites and historic features are located in the project area. Such maintenance shall be conducted regularly with cultural monitoring to be conducted by NKNKHI. NKNKHI shall be reasonably compensated for this service.

6.1.1.4 Maintenance of Utilities and Access, including Right of Way

HDOT is responsible for the ongoing maintenance of vegetation in all areas where historic sites and historic features are located in the project area. Such maintenance shall be conducted regularly with cultural monitoring to be conducted by NKNKHI. NKNKHI shall be reasonably compensated for this service.

HDOT shall be responsible for the regular maintenance of access roads, bridges, utilities, and other built structures and features that are not specifically included within this SMP as the support structures or facilities of the Stewards. No additional improvements shall be made to any support structures or facilities without written approval by HDOT.

NKNKHI shall be responsible for promptly notifying HDOT of any damage to structures on the property. This notification shall occur within 24 hours of discovery. In the event of any emergency, NKNKHI shall follow these procedures immediately:

- Call 911
- Call HDOT, use emergency phone numbers below if needed until a HDOT representative is reached and notified of the on-site emergency

See Section 6.3 for additional emergency procedures.

NKNKHI shall be responsible for all costs associated with the regular use of catchment water, PV electricity, and/or composting toilets associated with the Hālau structure at site 2137 as well as any utilities regularly used Under the Viaduct.

6.1.1.4 Inspections

Through this SMP, NKNKHI recommends HDOT conduct formal inspections twice a year of both site 2137 and 2010. One inspection shall occur between March – May (prior to the start of the hurricane season on June 1). The second inspection shall occur before October 1, prior to the start of the annual “wet” season. HDOT shall notify NKNKHI at least 24 hours prior to the inspection taking place so a representative can join HDOT on these inspections. This will ensure that NKNKHI and HDOT are regularly communicating about and address any maintenance needs on the property.

These bi-annual inspections shall be led by HDOT HWY-O and include:

- Inspection of all roads and bridges;
- Inspection of all streams and waterways (i.e., ensure they are effectively cleared of debris or excess vegetation);
- Inspection of vegetation (i.e., ensure excess invasive species are not creating a hazard and/or add vegetative cover as needed to reduce erosion and soil loss);
- Construction BMP inspection as needed (use of the “State of Hawai‘i, Department of Transportation, Highways Division, Oahu District – Construction BMP Checklist”).

6.2 NKNKHI Best Management Practices

Best Management Practices will be employed by NKNKHI to support the maintenance of soil and water quality in the area. These include:

- Soil disturbance during periods of heavy rains will be avoided.
- Soil disturbed during construction or maintenance activity will be seed, mulched and vegetated as rapidly as possible.
- Trail maintenance will generally require vegetation removal, possibly with a weedwhacker or other hand-tool, and the removal of branches blocking the path.
- Herbicides will be transported, stored, mixed and loaded, applied and disposed of following label instructions to minimize the potential for polluted storm water runoff. AHLC intends to only use non-restricted herbicide chemical treatment for the removal of invasive species that pose significant threats to the historic sites and features, and only with the consent (verbal or written) from HDOT. Should restricted use herbicides become absolutely necessary to the preservation of historic sites or a safe work environment, they will be applied by HDOT or their contractor.

6.2.1 Support Facilities Operations & Maintenance Management

This section provides general information obtained from CPE for the support facilities that have been proposed. NKNKHI will be entirely responsible for the general housekeeping and maintenance of all features associated with the proposed support facilities outlined in Section 4. A summary of annual costs for maintenance and recommended funds to have on hand for emergency repairs is provided in Table 15 below.

- ◇ Disclaimer/Limitations: this plan is for routine operations and maintenance for support facility features. In the event of typical problems relating to the installed support facilities, the Stewards shall first reference the applicable manufacturer’s operational guidelines and troubleshooting suggestions. Events/problems not covered in this plan may occur; and in those cases, the responsible personnel shall contact emergency repair professionals ASAP.

Table 15: Summary of Annual Maintenance Costs For Years 1-5

Maintenance Item	Estimated Annual Cost	Emergency Repair Funds
Hālau	\$50	\$500
Rainwater Catchment Storage Tank	\$150	\$200
Composting (or Incinerator) Toilets (2)	\$50-400 (depending on type installed)	\$600
Wash Station with Greywater System	\$150	\$300
Solar Power Panels (PV System)	\$0	\$500
Storage Containers (2) & Gutters	\$50	\$100
Landscaping/Vegetation	\$50	N/A
Under the Viaduct – Office & Storage	\$150	\$500
Annual Costs/Emergency Funds	\$1000	\$2700

Site 2137 Support Facilities:

◆ Hālau (Classroom)

- Description of structure (site location, approximate size, summary of features, etc.) – TBD upon 80% Design Construction Plans
- General Housekeeping:
 - Routine cleaning, such as sweeping of floors, to keep the area clear and free of debris. Regular deep-cleaning (no less than quarterly) to prevent mold and degradation.
 - Turn off any electrical components before leaving the site.
 - Store all loose items on-site in storage container before leaving the site.
 - Close/lock any security doors before leaving the site, if applicable.
 - Oil and grease chains/roll down gates for lubrication as-needed (no less than quarterly), if applicable.
- Maintenance Schedule

Frequency	Maintenance Task
Monthly or As Needed	Inspection, cleaning and clearing of roof, and trim any trees that may overhang this area.
Annually or As Needed	Inspection of structure, to identify any areas that may need repair or maintenance. Perform repairs as necessary.

- Estimated Maintenance Costs
 - Cleaning Equipment/Material (includes brooms, roof cleaning equipment, etc.) = \$50/year
 - Labor to be completed by Stewards
 - Emergency Repair Funds (for unforeseen damages) = \$500

◆ **Rain Catchment Water Storage Tank**

- Description of rain catchment water storage tank (site location, approximate size, use/function, components of tank, etc.) TBD Upon 80% Design Construction Plans
- Operation instructions for gravity fed water tank to be followed as provided by manufacturer and additional information regarding guidelines and testing of rainwater catchment systems shall be accessed via UH Hawai'i CTAHR Hawai'i Rainwater Catchment Systems Program: <https://www.ctahr.hawaii.edu/hawaiirain/>
- General Housekeeping:
 - Ensure tank is covered at all times to prevent mosquitos, rodents, vegetation, and foreign items from entering tank.
 - Change any filters as often as recommended by manufacturer
 - Ensure distribution faucet is closed - without leaking after every use.
 - Catchment water is to be used as non-potable water ONLY, unless an installed water filtration system (ie: UV filtration, reverse osmosis, etc.) provides for other specific uses.
- Maintenance Schedule

Frequency	Addition of chlorine tablet
Monthly or As Needed	Inspection of Tank Roof to ensure it is clear of debris, trim nearby trees that overhang over the roof and gutter system to reduce loose branches and leaves from getting into the tank.
Quarterly or As Needed	Inspection and cleaning of screening and/or filter for entrance into tank. Filter/Screening will need to be replaced if broken or ripped.
At Least Every 3 Years or As Needed	Flushing of tank, removal of sludge and sediment build-up
Every 7 to 10 Years	Paint exterior of storage tank

- Estimated Maintenance Costs
 - Cleaning Equipment/Material (includes roof cleaning equipment, tools to remove debris from filter, equipment to remove sludge and sediment, etc.) = \$50/year
 - Labor to be completed by Stewards
 - Cost for Replacement Filter/Screening = \$50 - 100
 - Labor to be completed by Stewards
 - Emergency Repair Funds (for unforeseen damages) = \$200
 - Some repairs may require hiring a repairman

- ◆ **Composting Toilets** (Reference: *Clivus Multrum* M45 Toilet Maintenance Manual)
- ◆ **Incinerator Toilets** (Reference: Cinderella Incineration Toilets Maintenance Manual on <https://cinderellaeco.com/>)
 - Description of composting or incinerator toilets (site location, use/function, etc.) TBD Upon 80% Design Construction Plans
 - Complete operation and maintenance instructions to be provided by manufacturer
 - Housekeeping for toilet structures
 - Routine cleaning of toilet fixtures using mild soap and water.
 - Remove and dispose of trash inside toilet structure.
 - Maintenance Schedule

Frequency	Addition of chlorine tablet
Daily/Weekly (or before/after every workday)	Add bulking material (such as softwood planer shavings) to compost. Quantity: Approximately 1 gallon per roll of toilet paper used.
Monthly	Mixing and leveling of compost bulking material inside composter chamber.
Monthly	Add fresh water (quantity per manufacturer) onto compost pile to aid in compost process.
Monthly	Add an air-dried bacteria compost enhancer for aerobic composting process. To be sprinkled over compost pile.
Monthly or As Needed	Empty liquid reservoir when max level (per manufacturer) is reached.
Annually	Inspect, clean and ensure vent/fan system is properly operating.
Annually or As Needed	Compost to be removed when reaches max level (per manufacturer) of compost chamber and replaced with new material.

Frequency	Addition of chlorine tablet
Daily/Weekly (or before/after every workday)	Incinerate waste and empty ash container. Wash container with hot water and insert back into toilet system.
After 100 uses (or after every workday)	Steam clean exhaust vent.
Annually (or after every 500 uses)	Disconnect flue pipe. Inspect and clean exhaust pipe and catalyst. May require gas-qualified professional, TBD during design/permitting phase.
Annually (or after every 1000 uses)	Disconnect flue pipe. Clean ventilation pipe. May require gasqualified professional, TBD during design/permitting phase.

- Estimated Maintenance Costs
 - Cleaning Equipment/Material (includes cleaning equipment, cleaning products, bulking material, etc.) = \$50-400/year
 - Labor to be completed by Stewards
 - Emergency Repair Funds (for unforeseen damages) = \$600
 - Some repairs may require hiring a repairman

♦ **Wash Station with Greywater System** (if included with toilet facility)

- Description of wash station and greywater system (site location, size, components, use/function, etc.) TBD Upon 80% Design Construction Plans
- Complete operation instructions for pump and greywater system to be provided by manufacturer
- Housekeeping for wash station and greywater system:
 - Routine cleaning of wash station fixtures using mild soap and water.
 - Make sure sink faucet is closed and there is no leaking after every use.
- Maintenance Schedule

Frequency	Addition of chlorine tablet
Quarterly	Inspection of wash station with greywater system, ensure systems are functioning properly
Semi-Annually	Clean screening and filter of greywater system to remove residual
Annually	Inspection and maintenance of pump, cleaning of filter, etc.

- Estimated Maintenance Costs
 - Cleaning Equipment/Material (includes cleaning equipment, etc.) = \$150/year
 - Cost for Replacement of Pump = \$1,000 - 2,000
 - Costs inclusive of pump and repairman for installation
 - Emergency Repair (for unforeseen damages) Funds = \$300
 - Some repairs may require hiring an electrician/plumber

♦ **Solar Power Panels (PV System)**

- Description of components to electrical system TBD Upon 80% Design Construction Plans
- Maintenance Schedule

Frequency	Addition of chlorine tablet
Quarterly	Inspection of solar panel system, ensure all component are intact (not misplaced or missing). Wipe down/clean panels.
As Needed	Replacement of battery. (Longevity of battery depends on use, typically lasts 2-5 years)

- Estimated Maintenance Costs
 - Cost for Replacement Battery = \$500 - 3,000
 - Labor to be completed by Stewards
 - Emergency Repair Funds (for unforeseen damages) = \$500
 - Some repairs may require hiring an electrician

◆ **Storage Containers**

- Description of storage container (site location, approximate size, use/function, etc. TBD Upon 80% Design Construction Plans)
- Housekeeping for storage containers and roof covering
 - Routine sweeping inside and around the grounds to keep area clear and free of debris.
 - Store all loose items before leaving the site.
 - Close/lock container before leaving the site.
- Maintenance Schedule

Frequency	Addition of chlorine tablet
Annually	Inspection of containers, removal of unnecessary items, lock changes if necessary
Monthly or As Needed	Inspection of roof and gutter system to ensure it is clear of debris, and trim any nearby trees that overhang this area
Annually or As Needed	Inspection of structures and containers, to identify any areas that may need repair or maintenance. Perform repairs as necessary.

- Estimated Maintenance Costs
 - Cleaning Equipment/Material (includes brooms, removal of material, etc.) = \$50/year
 - Labor to be completed by Stewards
 - Cost for Replacement Lock = \$10 - 200
 - Labor to be completed by Stewards

◆ **Landscaping/Vegetation**

- Description of areas to be maintained. TBD Upon 80% Design Construction Plans
- Maintenance schedule

Frequency	Addition of chlorine tablet
Monthly or As Needed	Trimming of trees/bushes, clearing of vegetation, planting of plants, as needed to maintain site.

- Estimated Maintenance Costs
 - Landscaping Equipment/Material (includes rakes, garden hoe, branch cutters, etc.) = \$50/year

◆ **Under the Viaduct – Office Trailer & Storage Containers**

- Description (site location, approximate size, use/function, etc. TBD Upon 80% Design Construction Plans)
- Housekeeping for office trailer and storage areas
 - Routine sweeping inside and around the grounds to keep area clear and free of debris.
 - Store all loose items before leaving the site.
 - Close/lock the office and/or storage areas before leaving the site.
- Maintenance Schedule





Frequency	Addition of chlorine tablet
Annually	Inspection of interior office and storage areas, removal of unnecessary items, lock changes if necessary
Monthly or As Needed	Inspection of roof to ensure it is clear of debris
Annually or As Needed	Inspection of interior and exterior of structures to identify any areas that may need repair or maintenance. Perform repairs as necessary.

- Estimated Maintenance Costs
 - Cleaning Equipment/Material (includes brooms, removal of material, etc.) = \$150/year
 - Labor to be completed by Stewards
 - Emergency Repair Funds (for unforeseen damages) = \$500
 - Some repairs may require hiring an electrician or plumber

Any future proposals to install additional support features, which have been approved by HDOT for construction/installation shall be included in an updated SMP which has been approved by both parties.

6.3 General Safety, Environmental Management, and Sustainability

NKNKHI shall adopt the following standards on general safety, environmental management, and sustainability.

	<p>Limit, with the goal of one day eliminating, non-renewable energy resources.</p> <p>Re-use and recycle non-renewable natural resources.</p>
	<p>Eliminate the use of toxic substances harmful to our environment and community.</p> <p>Reduce dependence upon synthetic materials that do not break down to harmless substances.</p>
	<p>Manage the land, water, soil, wildlife, and other natural resources under the stewardship of NKNKHI in ways that improve their condition and mimics or restores natural conditions.</p>
	<p>Strengthen our staff and local community members by:</p> <ul style="list-style-type: none"> • Honoring their diversity and culture; • Assuring safe practices and facilities for their use; and • Providing opportunities for all to access and be inspired by program resources. <p>Encourage full and fair civic engagement in program affairs by all community members and encourage program staff to be active in community civic affairs.</p>

- NKNKHI commits to meeting, and exceeding when possible, local, state, federal, and NPS requirements for environmental and safety compliance.
- Safety and environmental performance will be considered in everything we do. Accountability for providing a safe workplace, a strong safety culture, and a commitment to environmental compliance and sustainability within the program rests with all members of NKNKHI.
- Project operational equipment will be maintained in safe and environmentally sound condition. NKNKHI will maintain the equipment they use in safe and environmentally sound condition and operate that equipment at all times within its safe operating limitations and with diligence to prevent environmental harm. If it cannot be used safely or without causing unacceptable environmental damage, we will not use it.
- Our sustainability efforts will lead by example. NKNKHI will strive to be a leader in the state and in our community by demonstrating sustainable environmental practices, including toxics reduction and pollution prevention.

6.4 Emergency Procedures

The health and safety of all persons visiting the property area is of utmost importance. It is the responsibility of all partners to ensure that all visitors are kept safe at all times. It is also important that all the partners work together to keep the property area as safe and wellmaintained as possible. The rich historic sites located on the property make for wonderful features to visit, but they can also pose hazards to untrained or unaware visitors.

6.4.1 General Provisions

The property will be kept secure at all times. This is not public property and not intended for the public to visit without prior permission or proper supervision, therefore, as improvements are made, it will become increasingly important to ensure that any gates are properly maintained and locked when NKNKHI does not have events taking place on the property.

Any trespassers should be immediately asked to leave. Should they refuse to leave, NKNKHI has the authority to call “911” and ask that trespassers be removed from the property. NKNKHI should promptly notify HDOT of any such incident.

In case of emergency, CALL 911 IMMEDIATELY

In case of any emergency, the first call should always be “911”. When it comes to the health and safety of individuals, always err on the side of caution.

Practice these safety tips:

- Personal protective equipment (PPE) must always be used around construction activity – no persons will be allowed in a construction zone or near heavy equipment without PPE;
- Always travel with a charged cell phone when in the property area;
- Always try to hike with a buddy or partner;
- Minors should never be allowed to handle dangerous equipment, even with supervision;
- Minors should not be allowed on the property without adult supervision.

6.4.1.1 Location and Nearest Emergency Room

In the event of a serious injury, “911” should be called. No injured person(s) should be transported in personal or work vehicles. When providing an address to the 911 operator you can use the Hawaiian Cement address (99-1300 Hālawa Valley Street, Aiea, HI 96701-3289) to get close to the site – then provide more explicit directions up the access road.

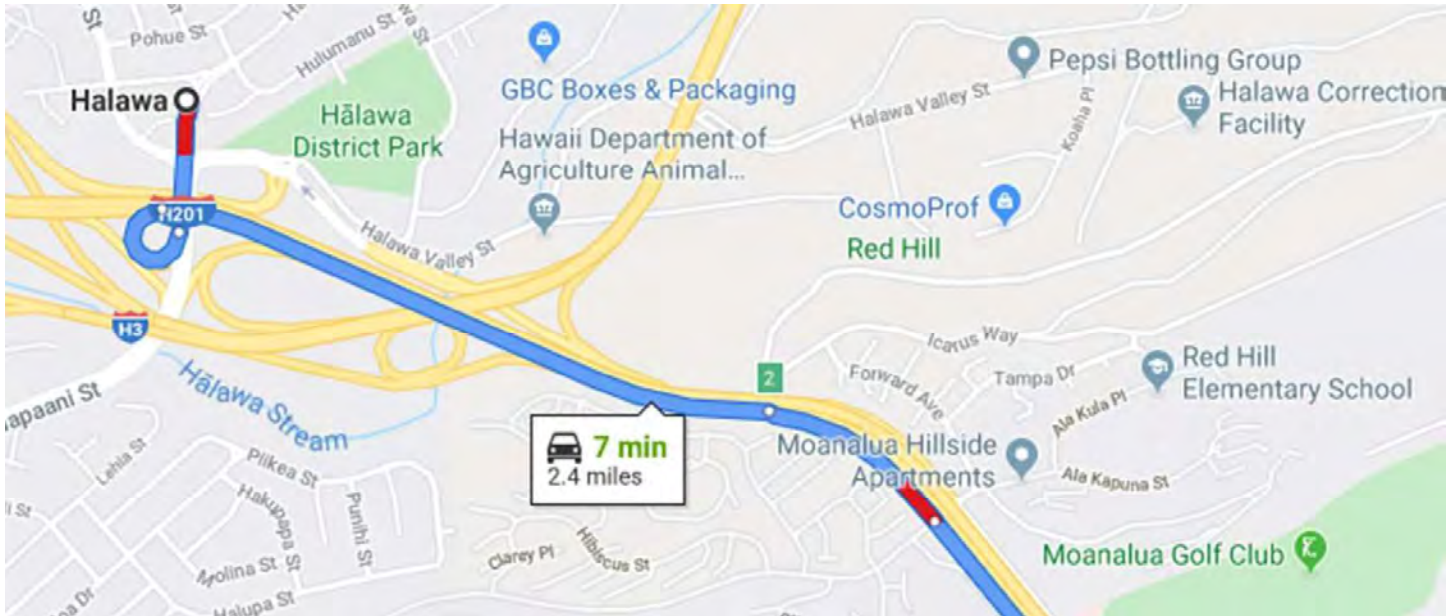
DIRECTIONS: From the Moanalua Freeway going west (78), take the Camp Smith exit (1E) and follow Hālawa Valley Street. Pass a “No outlet” sign. Immediately after you pass under the H3 freeway, turn left (into the Hawaiian Cement plant). Continue mauka with the Hawaiian Cement Plant on your right and the H3 freeway up above you on your left (you are actually going through the Hawaiian Cement work area - drive carefully - but continue). If the weather is wet, choose the right leg of the road split that you meet halfway through the cement factory, then turn left, which will take you back on track along the H3 -- as to form two sides of a triangle. If the weather is dry, you can use the “third leg,” which follows H3. Continue mauka. Stay close to the H3 up above you (on your left) and continue through the first and second gate. We meet at the third gate at the entrance to the cultural access area.

Kaiser Permanente Moanalua Medical Center

3288 Moanalua Rd, Honolulu, HI 96819

Directions to nearest hospital

- **Take I-H-201 E to Moanalua Rd.**
- **Take exit 2 from I-H-201 E (1.4 mi)**
- **Continue on Moanalua Rd to Kaiser Permanente Emergency Room (1.0 mi)**



6.4.1.2 Emergency Supplies to have on Site

- First Aid Kit
- Flashlights
- Fire Extinguishers
- Hand-radio
- Batteries

6.4.1.3 Emergency Contacts

NKNKHI shall keep an updated list of emergency contacts as partnerships and programming are developed.

Organization	Emergency Point of Contact	Phone Number	Alternate Contact	Phone Number
HDOT	Report a problem	(808) 831-6714	After hours	(808) 485-6200
HDOT	H-3 Tunnel Control Center	(808) 485-6208		
HDOT	H-3 Tunnel Maintenance Engineer	(808) 485-6233		
HDOT	HWY-O Ryan Nakata	(808) 831-6700 ext. 134	Karen "Kay" Yamauchi	(808) 831-6700 ext. 135

6.4.2 Health and Safety Emergencies

Health and safety emergencies are events where individuals may be in harm's way. The following are the site rules for responding to health and safety emergencies.

PROGRAM RULES

- No minor with any cuts or open wounds on their body shall be allowed into any body of water on site.
- No drugs, alcohol, or smoking in program area.
- No violence.
- No swearing.
- Appropriate restroom facilities shall be used at all times.

6.4.2.1 Assault on Child or Staff

1. Call 911 – police and ambulance, if needed
2. Secure the area
3. Render First Aid
4. Stay with the victim, and have another person contact the current Core Team Leader
5. If student, have another person locate teacher or adult chaperone
6. Stay with the victim until police, family or others arrive
7. Document incident
8. Notify HDOT

6.4.2.2 Bloodborne Pathogen Exposure

1. If your eyes are splattered with blood or body fluids, flush immediately with water for at least five minutes. It is best to rinse under clean running water.
2. If blood or any body fluids get into your mouth, rinse your mouth with 50/50 mix of hydrogen peroxide and water, and rinse with plain water.
3. For incidents involving both eyes and mouth, report to your health care provider or medical authority immediately for follow-up treatment and care.
4. If you get a needle stick or puncture wound, the wound should be milked to induce bleeding.
5. Wash the area thoroughly with soap and water.
6. For any bite, scratch, or lesion that may have had blood or body fluid exposure, do the following: a. Wash the area thoroughly with soap and water, or pour a small amount of hydrogen peroxide on the wound. (Hydrogen peroxide is known to destroy HIV and other viruses within seconds.) b. Cover the wound with a sterile dressing
7. Ensure spill is removed with proper procedure and universal precautions in place
8. Seek medical attention for future action.
9. Contact Core Team Leader
10. Document incident

6.4.2.3 Bomb Threats

1. Note as much detail concerning the call as possible including: gender, accent, age, emotion, background noise and details of the threat
2. Immediately notify the Core Team Leader
3. Contact the police; follow their instructions; they are now in charge
4. Ensure that all members and participants are safe
5. Follow evacuation procedures if directed to do so by police
6. Document incident

6.4.2.4 Building and Site Evacuation

1. Evacuation should be initiated by Core Team Leader on duty or authorities when risks warrant evacuation - refer to posted diagrams in building for exits
2. Contact EMS and/or police
3. Notify all people to leave the building
4. Be calm and avoid panic and a surge at the exits - provide any assistance required to elderly people, people with small children, disabled people, etc.
5. Check restrooms and other areas to make sure everyone is out
6. Stand by exits to make sure no one re-enters
7. Secure doors and assemble at a specific, safe location outside
8. Follow the instructions and direction of the police
9. Document incident

6.4.2.5 Disorderly Persons

There are many different situations that may occur which could cause NKNKHI and visitors' discomfort because of the improper actions of others. These actions may or may not be illegal, but if they are inconsistent with the organization's values or procedures, they should not be tolerated. In the event an NKNKHI team member encounters an irate or disruptive person, team member should:

1. Remain as calm as possible
2. Remember that their personal safety and that of others is a priority
3. Activate the emergency plan and ask for assistance – contact the police if needed
4. Attempt to diffuse the situation by listening and engaging the person in conversation, using active listening techniques
5. Ask the person to leave if appropriate
6. Document the incident
7. Report the incident to the Core Team Leader

Behavioral expectations for all visitors should be communicated verbally through a code of conduct.

6.4.2.6 Intruders and/or Trespassers

1. Unfamiliar persons on the property may range from someone lost and looking for directions to a person with intent to do harm to persons or property. Some judgment must be made on the part of NKNKHI team members. Be observant as to the make, model, and license number of the car. Persons should be questioned to ascertain who they are and why they are here. Do not antagonize the intruder. Be polite, give assistance if possible, refer the person to the office, or ask them to leave. Observe that the person leaves site.
2. If the appearance of the unfamiliar person makes you uncomfortable, approach with another team member. Someone should stay with the visitors away from the situation.
3. If the person seems threatening in any way, do not approach, or take any chances. Remove yourselves and the visitors from the area, notify the office, and observe the whereabouts of the person.
4. Teach the visitors to come quietly and tell you if they see an unfamiliar person on the property. If a child encounters an unfamiliar person, real or imagined, never tell the child that "it really wasn't anything," "there is no need to be afraid," or "it was just your imagination." Frightened children need to be allowed to experience their fear, to know that it is okay to be afraid, and to talk about their experience.
5. Notify the Core Team Leader immediately of any intruders.
6. Complete an incident report and any other reports requested.

NKNKHI shall maintain a list of individuals who are not allowed on property for which NKNKHI has permitted access by HDOT. This list shall be reserved only for individuals who proved to be dangerous or otherwise considered a threat to safety and welfare of staff, program participants, or the public.

NKNKHI may not prohibit federal, state, or city employees from entering the property, although NKNKHI maintains the right to request to HDOT that individuals who do not adhere to the program rules not be allowed on property at HDOT's discretion.

6.4.2.7 Kidnapping

If a child has been kidnapped or removed from a program without authorization, staff should respond by:

1. Activating the emergency plan and notifying other staff
2. Securing the facility
3. Notify the Core Team Leader
4. Taking attendance for all youth and initiating search teams with available team members
5. Notify the Police Department and provide the following info: child's name and age, physical and clothing description of the child, including any distinguishing marks such as birthmarks, and time and location child was last seen
6. Notify local Child Care authority if applicable
7. Document incident

6.4.2.8 Lockdown

When to activate a Lockdown?

1. When notified to do so by local police or government
2. When an armed person (gun/weapon) is identified in the facility or on the grounds
3. The sound of a discharged firearm is heard
4. A child has been identified as missing

Who activates a Lockdown?

1. The Core Team Leader or their designee may activate a Lockdown when an appropriate (see above) emergency is evident
2. Any immediate life-threatening situation must be reported immediately
3. Anyone observing or suspecting a dangerous situation must immediately notify Core Team Leader or their designee
4. The Core Team Leader or their designee will immediately notify the Police upon activation of a lockdown event

During an emergency:

1. Activate Lockdown
2. Notify all concerned
3. Account for all team members and visitors
4. Secure facility, post signage
5. Move to identified meeting place
6. Wait for further instructions and/or until Lockdown is cleared

6.4.2.9 Missing or Fleeing Child

When a child is missing or suspected of fleeing a program, team members should respond by:

1. Activating the emergency plan and notifying other team members
2. Securing the facility
3. Notify the Core Team Leader
4. Taking attendance for all youth and initiating search teams with other team leaders
5. Notify the Police Department (number)
6. Notify the child's parents
7. Notify local Child Care authority if applicable
8. Document incident

6.4.2.10 Shelter in Place (see also Lockdown)

Plans for reaction to the atmospheric or environmental release of chemical, biological, or other hazardous materials should include a Shelter in Place procedure. In these situations, it may be necessary to seek shelter at a designated location and seal the premises when notified by authorities.

When to activate Shelter in Place procedures?

1. When notified to do so by local police or government
2. When notified through radio, television, or other emergency communication system
3. When a hazardous chemical has been released

During an emergency:

1. Activate Shelter in Place procedures
2. Notify all concerned
3. Account for all children and occupants
4. Secure facility, post signage
5. Move to meeting place/room
6. Seal room (if necessary)
7. Wait for further instructions

Local officials are the best source of information; following their instructions during and after emergencies is the safest choice. Shelter in Place instructions are usually provided for durations of a few hours.

6.4.2.11 Suspicious Mail or Package

1. Do not touch, smell, or taste unknown substances
2. Cover substance with paper, trash can, clothes or other material
3. Evacuate and seal off room
4. Wash hands thoroughly
5. Notify supervisor on duty
6. Mark room as "Dangerous"
7. Contact police
8. Make a list of anyone present in the room at the incident to provide to police
9. Document incident

6.4.3 Environmental Emergencies

Due to the nature of the property, there is an acknowledged potential for flooding, rockfall, fire, and other natural hazards to natural take place on the property. HDOT shall be responsible for minimizing and mitigating hazards and/or vulnerabilities that may occur on the property. In the event that any of the property is damaged as the result of an environmental disaster or event, NKNKHI shall be responsible for notifying HDOT of the damage immediately, which shall not be more than 24 hours after the damage is discovered by NKNKHI. NKNKHI shall be responsible for making a good faith effort to inspect the property for damage when it is reasonably safe to do so after any environmental emergency or severe weather event.

6.4.3.1 Earthquake

1. Instruct all occupants to “drop, cover and hold and remain that way until the earth stops moving
2. Stay away from windows, bookcases, and filing cabinets.
3. Hold onto the item you are using as a cover, if it moves, move with it.
4. If no items are available for cover, crouch by a load-bearing wall and cover your head with your arms
5. Check on health and safety of all occupants after the threat has passed
6. Check utilities for disruption/damage (gas, water, sewer)
7. Contact EMS before any evacuation of the facility if damage has occurred
8. Document incident

Outdoors:

1. “Drop, cover and hold,” keeping away from glass, bricks, and power lines
2. If you are near a building and there is no safer location, take cover in a doorway

6.4.3.2 Flash Flood

1. Find safe shelter or find a safe route out of the area
2. Do not walk, swim, or drive through flood waters
3. Stay out of areas subject to flooding. Dips, low spots, canyons, washes, etc., can become filled with water.
4. If outdoors, climb to high ground and stay there. Move away from dangerous flood waters.
5. If you come upon a flowing stream where water is above your ankles, stop, turn around, and go another way.

6.4.3.3 Fire Alarm/Emergency

If smoke or fire is seen:

1. Activate fire alarm if not sounding
2. Evacuate everyone in facility, including staff; drop and crawl to avoid smoke and close doors behind you
3. Call 911 from outside the building
4. Team members in charge of youth should take attendance

If no smoke or fire is seen:

5. Follow steps above and:
6. If safe to do so, search the building for anyone missing
7. Core Team Leader will check area of concern and use fire extinguisher if safe to do so
8. Follow Site Evacuation procedure if appropriate
9. Communicate with EMS
10. Document incident

6.4.3.4 Hurricane

In the event a hurricane watch or warning is issued by the National Weather Service, all programs shall be cancelled for the duration of the watch or warning.

6.4.3.5 Severe Weather

NKKNHI shall be responsible for monitoring all weather activities, specifically as related to severe weather watches and warnings in the area that could possibly impact program activities or the project area. In the event a severe weather watch or warning is issued by the National Weather Service, all programs shall be cancelled for the duration of the watch or warning.

NOAA Weather Updates for O’ahu:

- Radio Station KBA99 on 162.550 & 162.400 MHz
- Automated Recordings (808) 973-4380
- <https://www.weather.gov/hfo/watchwarn>

6.4.4 Corona Virus 2019 and Emerging Public Health Precautions

In 2019, a novel virus was identified in China that led to a global pandemic. The virus, Sarcov- 2, causes the disease Corona Virus 2019 (COVID-19) in humans, potentially resulting in a repository illness that can lead to death. As a result, the following procedures have been developed to respond to this new public health crisis.

The program shall always fully comply with any directives from the federal, state, or county government, this may include, but is not limited to, cancelling programs, use of additional protective equipment or gear, additional sanitation measures, or social / spatial distancing measures to limit transmission of any communicable diseases.

Until such time that COVID-19 poses no public health threat, the program shall implement standard safety protocols that fully implement “Safe Practices” as defined by the State Department of Health. These include:

Action	State Department of Health Safe Practices	Modification for Program
Hand Hygiene	Hand washing and/or 60% hand sanitizer facilitates available in work and public settings for use by employees and the public.	Hand washing and/or 60% hand sanitizer facilitates available for use by all students and program participants.
Home if Ill	Stay home if ill (except to seek care – call first).	Students and program participants will be asked to stay home if ill. Any student or program participant demonstrating symptoms of any illness, especially but not limited to a fever above 99.5 degrees Fahrenheit, cough, or shortness of breath, shall not be permitted to participate in the program and shall be sent home.
Face Covering	Cloth face coverings worn at all times by employees and public when outside the home (except solo exercising), including when in transit other than personal vehicle.	Face coverings shall be worn at all times for children or program participants over 2 years old. The program shall provide disposable face coverings if participants do not have their own personal face coverings.
Surface Cleaning	Regular cleaning / disinfection of surfaces and objects touched by the public and employees.	No modifications. Follow as described in state instructions.
Physical Distance	Maintain 6 feet distance between ALL individuals to the fullest extent possible.	No modifications. Follow as described in state instructions.
Protect High Risk	Limited in-person visits to nursing homes, hospitals, congregate facilities. Those at higher risk for severe illness advised to minimize time and activities outside the household.	No modifications. Follow as described in state instructions.
Isolation	Isolation of cases either in home or in facility, under DOH monitoring & direction.	No modifications. Follow as described in state instructions.
Quarantine	Quarantine of contacts of cases either in home or facility, under DOH monitoring & direction.	No modifications. Follow as described in state instructions.

Capacity Limits:

Impact Level (as determined by State or County)	Program Restrictions
STAY AT HOME (Major Disruption)	All programs stopped – no gatherings.
SAFER AT HOME (Moderate Disruption)	No gatherings or program activities over 10 people and maintain > 6 ft physical distance – no high-risk populations or kūpuna allowed to participate in program.
ACT WITH CARE (Minor Disruption)	No gatherings over 10 per program area and maintain > 6 ft physical distance; high-risk populations or kūpuna participate at their own discretion.
RECOVERY (Minimal Disruption)	Gatherings and programs allowed up to 50 people and maintain > 6 ft physical distance; high-risk populations or kūpuna participate at their own discretion.
NEW NORMAL (No Disruption)	Maintain > 6 ft physical distance and other protective measures; high-risk populations or kūpuna participate at their own discretion.

6.4.4.1 CDC Interim Guidance for Schools and Day Camps

<https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/index.html>

Interim Guidance For Schools And Day Camps

As communities consider a gradual scale up of activities towards pre-COVID-19 operating practices in centers for learning, such as K–12 schools and summer day camps, CDC offers the following recommendations to keep communities safe while resuming peer-to-peer learning and providing crucial support for parents and guardians returning to work. These recommendations depend on community monitoring to prevent COVID-19 from spreading. Communities with low levels of COVID-19 spread and those with confidence that the incidence of infection is genuinely low (e.g., communities that remain in low transmission or that have entered Step 2 or 3) may put in place the practices described below as part of a gradual scale up of operations.

All decisions about following these recommendations should be made in collaboration with local health officials and other state and local authorities who can help assess the current level of mitigation needed based on levels of COVID-19 community transmission and the capacities of the local public health and healthcare systems, among other relevant factors. CDC is releasing this interim guidance, laid out in a series of three steps, to inform a gradual scale up of operations. The scope and nature of community mitigation suggested decreases from Step 1 to Step 3. Some amount of community mitigation is necessary across all steps until a vaccine or therapeutic drug becomes widely available.

Scaling Up Operations

- **In all Steps:**
 - » Establish and maintain communication with local and state authorities to determine current mitigation levels in your community.
 - » Protect and support staff and students who are at higher risk for severe illness, such as providing options for telework and virtual learning.
 - » Follow CDC's Guidance for Schools and Childcare Programs.
 - » Provide teachers and staff from higher transmission areas (earlier Step areas) telework and other options as feasible to eliminate travel to schools and camps in lower transmission (later Step) areas and vice versa.
 - » Encourage any other external community organizations that use the facilities also follow this guidance.
- **Step 1:** Schools that are currently closed, remain closed. E-learning or distance learning opportunities should be provided for all students. Support provision of student services such as school meal programs, as feasible. Camps should be restricted to children of essential workers and for children who live in the local geographic area only.
- **Step 2:** Remain open with enhanced social distancing measures and for children who live in the local geographic area only.
- **Step 3:** Remain open with distancing measures. Restrict attendance to those from limited transmission areas (other Step 3 areas) only.

Scaling Up Operations

Promote healthy hygiene practices (Steps 1–3)

- Teach and reinforce washing hands and covering coughs and sneezes among children and staff.
- Teach and reinforce use of face coverings among all staff. Face coverings may be challenging for students (especially younger students) to wear in all-day settings such as school. Face coverings should be worn by staff and encouraged in students (particularly older students) if feasible and are most essential in times when physical distancing is difficult. Information should be provided to staff and students on proper use, removal, and washing of cloth face coverings. Face coverings are not recommended for babies or children under the age of 2, or for anyone who has trouble breathing, or is unconscious, incapacitated or otherwise unable to remove the covering without assistance. Cloth face coverings are meant to protect other people in case the wearer is unknowingly infected (many people carry COVID-19 but do not have symptoms). Cloth face coverings are not surgical masks, respirators, or personal protective equipment.
- Have adequate supplies to support healthy hygiene behaviors, including soap, hand sanitizer with at least 60 percent alcohol (for staff and older children who can safely use hand sanitizer), paper towels, tissues, and no-touch trash cans.
- Post signs on how to stop the spread of COVID-19, properly wash hands, promote everyday protective measures, and properly wear a face covering.

Intensify cleaning, disinfection, and ventilation (Steps 1–3)

- Clean and disinfect frequently touched surfaces within the school and on school buses at least daily (for example, playground equipment, door handles, sink handles, drinking fountains) as well as shared objects (for example, toys, games, art supplies) between uses.
- To clean and disinfect school buses, see guidance for bus transit operators.
- Ensure safe and correct application of disinfectants and keep products away from children.

- Ensure ventilation systems operate properly and increase circulation of outdoor air as much as possible such as by opening windows and doors. Do not open windows and doors if they pose a safety or health risk (e.g., allowing pollens in or exacerbating asthma symptoms) risk to children using the facility.
- Take steps to ensure that all water systems and features (for example, drinking fountains, decorative fountains) are safe to use after a prolonged facility shutdown to minimize the risk of Legionnaires' disease and other diseases associated with water.

Promote social distancing

- **Step 1 and 2:**

- » Ensure that student and staff groupings are as static as possible by having the same group of children stay with the same staff (all day for young children, and as much as possible for older children).
- » Restrict mixing between groups.
- » Cancel all field trips, inter-group events, and extracurricular activities (Step 1).
- » Limit gatherings, events, and extracurricular activities to those that can maintain social distancing, support proper hand hygiene, and restrict attendance of those from higher transmission areas (Step 2; Note: restricting attendance from those in Step 1 areas).
- » Restrict nonessential visitors, volunteers, and activities involving other groups at the same time.
- » Space seating/desks to at least 6 feet apart.
- » Turn desks to face in the same direction (rather than facing each other), or have students sit on only one side of tables, spaced apart.
- » Close communal use spaces such as dining halls and playgrounds if possible; otherwise stagger use and disinfect in between use.
- » If a cafeteria or group dining room is typically used, serve meals in classrooms instead. Serve individually plated meals and hold activities in separate classrooms and ensure the safety of children with food allergies.
- » Stagger arrival and drop-off times or locations or put in place other protocols to limit close contact with parents or caregivers as much as possible.
- » Create social distance between children on school buses (for example, seating children one child per seat, every other row) where possible.

- **Step 3:**

- » Consider keeping classes together to include the same group of children each day and consider keeping the same childcare providers with the same group each day.
- » Allow minimal mixing between groups. Limit gatherings, events, and extracurricular activities to those that can maintain social distancing, support proper hand hygiene, and restrict attendance of those from higher transmission areas (Step 1 or 2 areas).
- » Continue to space out seating and bedding (head-to-toe positioning) to 6 feet apart, if possible.
- » Consider keeping communal use spaces closed, such as game rooms or dining halls, if possible; if this is not possible, stagger use and disinfect in between uses.
- » Consider continuing to plate each child's meal, to limit the use of shared serving utensils and ensure the safety of children with food allergies.
- » Consider limiting nonessential visitors, volunteers, and activities involving other groups. Restrict attendance of those from higher transmission areas (Step 1 or 2 areas).
- » Consider staggering arrival and drop-off times or locations or put in place other protocols to limit close contact with parents or caregivers as much as possible.

Limit sharing (Steps 1–3)

- Keep each child’s belongings separated from others’ and in individually labeled containers, cubbies, or areas and taken home each day and cleaned, if possible.
- Ensure adequate supplies to minimize sharing of high touch materials to the extent possible (art supplies, equipment etc. assigned to a single student/camper) or limit use of supplies and equipment by one group of children at a time and clean and disinfect between use.
- If food is offered at any event, have pre-packaged boxes or bags for each attendee instead of a buffet or family-style meal. Avoid sharing of foods and utensils.
- Avoid sharing electronic devices, toys, books, and other games or learning aids.

Train all staff (Steps 1–3)

- Train all teachers and staff in the above safety actions. Consider conducting the training virtually, or, if in-person, ensure that social distancing is maintained.

Check for signs and symptoms (Steps 1–3)

- If feasible, conduct daily health checks (e.g. temperature screening and/or symptoms checking) of staff and students safely, respectfully, as well as in accordance with any applicable privacy laws or regulations. Confidentiality should be maintained.
- School and camp administrators may use examples of screening methods in CDC’s supplemental Guidance for Child Care Programs that Remain Open as a guide for screening children and CDC’s General Business FAQs for screening staff.
- Encourage staff to stay home if they are sick and encourage parents to keep sick children home.

Plan for when a staff member, child, or visitor becomes sick (Steps 1–3)

- Work with school administrators, nurses, and other healthcare providers to identify an isolation room or area to separate anyone who exhibits COVID-like symptoms. School nurses and other healthcare providers should use Standard and Transmission-Based Precautions when caring for sick people. See: What Healthcare Personnel Should Know About Caring for Patients with Confirmed or Possible COVID-19 Infection.
- Establish procedures for safely transporting anyone sick home or to a healthcare facility.
- Notify local health officials, staff, and families immediately of a possible case while maintaining confidentiality consistent with the Americans with Disabilities Act (ADA) and other applicable federal and state privacy laws.
- Close off areas used by a sick person and do not use before cleaning and disinfection. Wait 24 hours before you clean and disinfect. If it is not possible to wait 24 hours, wait as long as possible. Ensure safe and correct application of disinfectants and keep disinfectant products away from children.
- Advise sick staff members and children not to return until they have met CDC criteria to discontinue home isolation.
- Inform those who have had close contact to a person diagnosed with COVID-19 to stay home and self-monitor for symptoms and to follow CDC guidance if symptoms develop. If a person does not have symptoms follow appropriate CDC guidance for home isolation.

Maintain healthy operations (Steps 1–3)

- Implement flexible sick leave policies and practices, if feasible.
- Monitor staff absenteeism and have a roster of trained back-up staff.
- Monitor health clinic traffic. School nurses and other healthcare providers play an important role in monitoring health clinic traffic and the types of illnesses and symptoms among students.
- Designate a staff person to be responsible for responding to COVID-19 concerns. Employees should know who this person is and how to contact them.
- Create a communication system for staff and families for self-reporting of symptoms and notification of exposures and closures.
- Support coping and resilience among employees and children.

Closing

Steps 1–3

- Check state and local health department notices daily about transmission in the area and adjust operations accordingly.
- In the event a person diagnosed with COVID-19 is determined to have been in the building and poses a risk to the community, programs may consider closing for a short time (1–2 days) for cleaning and disinfection.

Stop the spread of germs that can make you and others sick!



Wash your
hands often



Wear a cloth
face cover



Cover your coughs
and sneezes



Keep **6 feet** of space
between you and
your friends



15 11663 A 04/10/2020

cdc.gov/coronavirus

6.4.4.2 Beyond Recovery: Reopening Hawai'i

A Strategy to reopen and reshape Hawai'i's economy. Pages from: https://governor.hawaii.gov/wp-content/uploads/2020/05/Gov_Reopening-Presentation-Slide-Deck_18-May-2020.pdf

Public Health Pillars to Ensure Community Safety

 Prevention	 Detection	 Containment	 Treatment
<ul style="list-style-type: none">✓ Safe Practices✓ Stay at Home✓ Traveler quarantine✓ Vaccines	<ul style="list-style-type: none">✓ Safe Practices✓ Disease surveillance✓ Testing✓ Diagnosis✓ Disease reporting	<ul style="list-style-type: none">✓ Safe Practices✓ Investigate, isolate and monitor cases✓ Trace, quarantine, monitor and test close contacts	<ul style="list-style-type: none">✓ Safe Practices✓ Clinical care✓ Treatments✓ Symptom management✓ Convalescence & rehabilitation✓ Life support

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State Roadmap to Recovery and Resilience



Impact Levels informed by
health, economic, and community-based indicators

(Impact level may vary by County. Phase durations not to scale.)

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COVID-19 Health-based Community Response

IMPACT	HEALTH DETERMINANTS					RESPONSE
	DISEASE ACTIVITY		CAPACITY			
	Severity	Prevalence	Healthcare Supply	Contact Tracing	Diagnostic Testing	
STAY AT HOME (MAJOR DISRUPTION)	Number of new hospital cases <u>threatens</u> hospital capacity	Median number of new cases per day per week indicates <u>uncontrolled</u> community spread	Surge/crisis plans deployed <u>and</u> hospital capacity maxed out	Max capacity of contact tracing is below the number of new cases/close contacts per day	Max capacity of testing is below the number of new cases/close contacts per day	<ul style="list-style-type: none"> • Safe Practices • <u>Essential activities</u> and their support services • Prepare to resume low-risk activities
SAFER AT HOME (MODERATE DISRUPTION)	Number of new hospital cases <u>requires</u> consideration of hospital surge/crisis plans	Median number of new cases per day per week indicates <u>controlled</u> community spread	Surge/crisis plans considered <u>and</u> hospitals can increase capacity by at least 10% within 5 days	80-100% of max capacity of contact tracing would be reached at current rate of new cases/close contacts per day	80-100% of max capacity of testing would be reached at current rate of new cases/close contacts per day	<ul style="list-style-type: none"> • Continue above • Resume <u>low-risk</u> activities • Prepare to resume medium to high-risk activities
ACT WITH CARE (MINOR DISRUPTION)	Number of new hospital cases <u>requires</u> <u>preparation of</u> hospital surge/crisis plans	Median number of new cases per day per week indicates <u>local, controlled</u> clusters	Surge/crisis plans in preparation <u>and</u> hospitals can increase capacity by at least 25% within 5 days	50-80% of max capacity of contact tracing would be reached at current rate of new cases/close contacts per day	50-80% of max capacity of testing would be reached at current rate of new cases/close contacts per day	<ul style="list-style-type: none"> • Continue above • Start with <u>medium-risk</u> activities; then move to <u>high-risk</u> activities • Prepare to resume highest risk activities
RECOVERY (MINIMAL DISRUPTION)	Number of new hospital cases is <u>managed</u> within normal hospital capacity	Median number of new cases per day per week indicates <u>sporadic activity</u>	Surge/crisis plans in place <u>and</u> hospitals can increase capacity by at least 50% within 5 days	<50% of max capacity of contact tracing would be reached at current rate of new cases/close contacts per day	<50% of max capacity of testing would be reached at current rate of new cases/close contacts per day	<ul style="list-style-type: none"> • Continue above • Resume <u>highest-risk</u> activities
NEW NORMAL (NO DISRUPTION)						<ul style="list-style-type: none"> • Continue above • Adjust Safe Practices to new normal

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State Department of Health Reopening Hawai'i Safe Practices



ACTION	DESCRIPTION
Hand Hygiene	Hand washing and/or 60% hand sanitizer facilities available in work and public settings for use by employees and the public
Home if Ill	Stay home if ill (except to seek care—call first)
Face Covering	Cloth face coverings worn at all times by employees and public when outside the home (except solo exercising), including when in transit other than personal vehicle
Surface Cleaning	Regular cleaning/disinfection of surfaces and objects touched by the public and employees
Physical Distance	Maintain 6 feet distance between <u>ALL</u> individuals to the fullest extent possible
Protect High Risk	Limited in-person visits to nursing homes, hospitals, congregate facilities. Those at higher risk for severe illness advised to minimize time and activities outside the household.
Isolation	Isolation of cases either in home or in facility, under DOH monitoring & direction
Quarantine	Quarantine of contacts of cases either in home or facility, under DOH monitoring & direction

The guidelines serve as a baseline for safe practices. Industry-specific higher standards of safety and protection, such as those issued by OSHA, NIOSH, CDC, and Industry organizations, shall be observed as well. These guidelines apply to public-facing workplaces as well as to break rooms, mealtimes, and employee locker rooms. These guidelines are subject to change. 20

6.5 Cultural Monitoring

Cultural Monitoring shall be required for all activities in the project area conducted by the federal government, state, or city to ensure that historic sites are not adversely affected. Additionally, HDOT should require any entity entering the project area or working within the project area to notify NKNKHI prior to entering the project area and additionally require these entities to use cultural monitoring to ensure historic sites are not adversely affected. Activities that may adversely impact historic properties include, but are not limited to, vegetation removal, tree trimming, and stream clearing.

6.6 Communication

NKNKHI shall be responsible for maintaining regular communication with the HDOT designee. NKNKHI shall meet or communicate in person, by phone, or by electronic mail no less than once a quarter for the purpose of maintaining communication regarding the property and any active permits.

HDOT shall be responsible for maintaining an accurate record of these communications or meetings.

6.7 Land Management and Access

It is unclear as to how the ongoing maintenance and preservation responsibilities will be enforced once HLID sunsets, which is anticipated for 2022. Therefore, it is imperative that both this SMP and preservation plan currently underway speak directly to the long-term care of the area resources that were adversely impacted by the H-3 Project and are thereby covered under the agreements outlined below.

All stakeholders, including FHWA, SHPO, ACHP, OHA, HDOT, and the Stewards should thoughtfully consider the development of a supplemental MOA that addresses additional adverse impacts to the North Hālawā Valley Project Area that resulted from the H-3 Project.

Until such an agreement is reached, the terms 1987 MOA shall remain in effect.

6.8 Insurance, Indemnification, and Liability

6.8.1 Insurance

6.8.1.1 Insurance Required under OHA MOA

Prior to NKNKHI's application for a long-term revocable permit from HDOT, NKNKHI shall obtain and maintain, in full force and effect, any and all insurance to cover NKNKHI's operations under the SMP that may be required under all applicable federal, state, and city laws and ordinances including, but not limited to, commercial general liability insurance and automobile liability insurance coverage.

6.8.1.2 Insurance Required for HDOT Revocable Permit

NKNKHI agrees to comply with any insurance requirements set by HDOT in issuance of a revocable permit for use of the project areas.

6.8.2 Indemnification

NKNKHI shall defend, indemnify and hold harmless the State of Hawai'i and OHA, its Trustees, officers, employees and agents, from and against any and all liability, loss, damage, cost, expense, including all attorneys' fees, claims, suits, demands and judgments arising, either directly or indirectly, out of or resulting from the errors, omissions or acts of NKNKHI or NKNKHI's officers, employees, or agents occurring during or in connection with the performance of NKNKHI's services under this Agreement.

Furthermore, nothing herein contained shall excuse NKNKHI from compliance with any federal, state, or county law, rule, regulation, or ordinance. The provisions of this paragraph shall remain in full force and effect notwithstanding the expiration or early termination of this Agreement. NKNKHI intentionally, voluntarily, and knowingly assumes the sole and entire liability for any of its officers, employees, and agents for all loss, cost, damage, or injury caused, either directly or indirectly, by NKNKHI or LFA-AHLC 's officers, employees, and agents in the course of the Steward appointment.

NKNKHI waives any rights to recovery from OHA or the State of Hawai'i for any injuries that NKNKHI or NKNKHI's officers, employees, agents may sustain while performing services under this Agreement and that are a result of the negligence of NKNKHI or NKNKHI's officers, employees, or agents.

Should OHA or the State of Hawai'i, without any fault on their respective parts, be made a party to any litigation commenced by or against the NKNKHI, the NKNKHI shall, in connection with this Agreement, pay all costs and expenses incurred by or imposed on OHA or the State of Hawai'i, including attorneys' fees.

NKNKHI shall also indemnify HDOT in accordance with the revocable permit to be issued by HDOT.

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Appendices

SEE ATTACHED:

Appendix A – 1987 MOA _____	123
Appendix B – 2008 Final IDP _____	174
Appendix C – 2010 CA#2550 _____	360
Appendix D – 2012 CA#2550.01 _____	375
Appendix E – 2020 NKNKHI MOA _____	390
Appendix F – Mason’s Treatment Recommendations Report _____	401
Appendix G – 2019 Hālawā Feasibility Report _____	511

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