



# **NĀ WAI O LULUKU:** **STEWARDSHIP MANAGEMENT PLAN** **AND STRATEGIC ACTION PLAN FOR** **THE LULUKU CULTURAL LANDSCAPE**

**HĀLAWA-LULUKU INTERPRETIVE DEVELOPMENT PROJECT AND  
ALOHA ‘ĀINA HEALTH & LEARNING CENTER**

Prepared in fulfillment of Cooperative Agreement No. 2550.01 (2012)  
and OHA Memorandum of Agreement No. 19-01 (2019)

AUGUST 2020

# **NĀ WAI O LULUKU:**

## **STEWARDSHIP MANAGEMENT PLAN AND STRATEGIC ACTION PLAN FOR THE LULUKU CULTURAL LANDSCAPE**

### **Hālawā-Luluku Interpretive Development Project and Aloha ‘Āina Health & Learning Center**

Prepared By

‘Āina Momona for the Luluku Farmers’ Association - Aloha ‘Āina Health & Learning Center

Trisha Kehaulani Watson, J.D., Ph.D.	Administrative Director
Jane Au, M.A.	Program Director
Julie Au, M.A.	Project Director
Emily Makini, M.A.	Project Planner

The Hālawā-Luluku Interpretive Development Team, Office of Hawaiian Affairs

Ardena Saarinen, M.S.	Interim Project Coordinator
Lori Walker, D. Arch.	Interim Legacy Land Manager



Recommended Citation:

Watson, Trisha K, Jane Au, Julie Au, Emily Makini, Ardena Saarinen, and Lori Walker. Nā Wai o Luluku: Stewardship Management Plan and Strategic Action Plan for the Luluku Cultural Landscape. Hālawā-Luluku Interpretive Development Project and Aloha ‘Āina Health & Learning Center, 2020

© ‘Āina Momona 2020

This document may not be reproduced or replicated without permission.

**E ‘eli‘eli kau mai**

*May a profound reverence alight*

# TABLE OF CONTENTS

List of Figures	10
List of Tables	10
Acknowledgements	11
Executive Summary	12
Property Information	13
Signatures	14
Abbreviations	15
1. Introduction	16
1.1 Overview of the 1987 Memorandum of Agreement	16
1.2 Overview of HLID Creation	18
1.3 Overview of the 1999 Cooperative Agreement	18
1.4 The 2010 Cooperative Agreement	19
1.5 The 2012 Amendment to the Cooperative Agreement	19
1.6 The 2019 Memorandum of Agreement Between OHA and Luluku Stewards	21
1.6.1 Selection Process	21
1.6.1.1 OHA's Request for Qualifications	21
1.6.1.2 Statement of Qualifications Review Committee	21
1.6.1.3 Evaluation Steps	21
1.6.1.4 Recommendation for Stewardship	22
2. History	23
2.1 The Cultural Landscape of Luluku	23
2.2 Description of Present Conditions	25
2.2.1 Existing Conditions	25
2.2.1.1 Property Description	25
2.2.1.2 Existing Vegetation and Ground Cover	25
2.2.1.3 Soils	25
2.2.1.4 Water Resources	26
2.2.1.5 Ecosystem Health, Function and Threats	26
2.3 Historic Preservation	27
2.3.1 Original Site Conditions and Recommendations	27
2.3.2 Condition Assessment	27
2.3.3 Preservation Plan	28
3. Stewardship Management Plan	35
3.1 Introduction to the Stewardship Management Plan	35
3.2 Selected Stewards: Luluku Farmers' Association and Aloha 'Āina Health & Learning Center	35
3.2.1 Strategic Partnerships	36
3.3 Organizational Structure and Contacts	37
3.4 Luluku Project Area	38
3.4.1 Brief Description of Vision for Stewardship Work	40
3.4.2 Archaeological Site Locations	40
3.4.3 IDP Vision for Luluku Agricultural Terraces	43
3.5 IDP Identified Impacts and Recommendations	43
3.5.1 Impacts	43



3.5.2 Recommendations	44
<b>4. Strategic Action Plan</b>	<b>45</b>
4.1 Vision	45
4.2 Goals	45
4.3 Purpose and Objectives	46
4.4 Luluku Mitigation Objectives	47
4.5 Luluku Program Area Boundaries and General Provisions	48
4.5.1 Program Area Boundaries	48
4.5.2 General Provisions	48
4.5.2.1 Program Hours	48
4.5.2.2 Personnel	48
4.5.2.3 Waivers	48
4.6 Program Activities	51
4.6.1 Program Rules	51
4.6.2 Heal the ‘Āina	51
4.6.2.1 Stabilize the site to prevent erosion	52
4.6.2.2 Implement Preservation Plan	52
4.6.2.2.1 Restore, Maintain and Preserve Site 1887	52
4.6.2.2.2 Restore, Maintain and Preserve Parcel 20	52
4.6.2.2.3 Close Trenches	53
4.6.2.3 Create an Interpretive Program That Describes H-3 Impacts to the ‘Āina	53
4.6.3 Sustain	53
4.6.3.1 Establish Sustainable Practices	54
4.6.3.1.1 Removal of Invasive Vegetation	54
4.6.3.1.2 Mulching	54
4.6.3.1.3 Nutrient Management	54
4.6.3.1.4 Herbaceous Weed Control and Brush Management	54
4.6.3.1.5 Monitoring	54
4.6.3.1.6 Fencing	55
4.6.4 Access and Practice	55
4.6.4.1 Develop Facilities to Enhance Access	56
4.6.4.1.1 Implement Feasibility Study	56
4.6.4.1.2 Implement Maintenance Plan	56
4.6.4.1.3 Design and Build Facilities for Program Use	56
4.6.4.2 Programs to Enhance Cultural Practices	59
4.6.4.2.1 Cultural Heritage Capacity Building	59
4.6.4.2.2 Farming and Food Sovereignty	60
4.6.4.2.3 Subsistence Practices	60
4.6.5 Natural/Ecological Resources	60
4.6.5.1 Implement Actions That Promote Ecological Balance	61
4.6.6 Educate	61
4.6.6.1 Interpret the Historic and Cultural Resources Through Educational Programs	62
4.6.6.1.1 Educational Programs (Ho’ona’auao)	62
4.6.6.2 Contemporary History of the H-3 and the Project Area	63
4.6.7 Practice	63

4.6.7.1 Programs to Enhance Cultural Practices	63
4.6.7.1.1 Mālama Hāloa	63
4.6.7.1.2 Mālama Luluku	64
4.7 Program Priorities	65
4.7.1 Priority One: Fall 1999 – Spring 2020	65
4.7.2 Priority Two: Spring 2020 – Fall 2020	66
4.7.3 Priority Three: Fall 2020 – Fall 2021	67
<b>5. Graphic Master Plan, Federal Regulations, and Permitting Requirements</b>	<b>68</b>
5.1 Intro	68
5.2 Facilities, Infrastructure, and Access	68
5.3 Agricultural Plan	69
5.4 Permitting Requirements	70
5.5 Federal Regulations	70
5.5.1 Clean Water Act	70
5.5.1.1 Section 401	71
5.5.1.2 Section 404	71
5.5.2 Endangered Species Act	71
5.5.2.1 Section 7	72
5.5.2.1.1 Endangered Species Act, Section 7 Consultation	72
5.5.3 Rivers and Harbors Act	72
5.5.3.1 Section 10	72
5.5.4 Migratory Bird Treaty Act	72
5.5.5 Fish and Wildlife Coordination Act	72
5.5.5.1 Fish and Wildlife Coordination Act Compliance	73
5.5.6 Federal Coastal Zone Management Act	73
5.5.6.1 Coastal Zone Management Consistency Statement	73
5.5.7 National Historical Preservation Act	74
5.5.7.1 National Historical Preservation Act, Section 106 Compliance	74
5.5.8 National Environmental Policy Act Compliance	76
5.6 State and County Permits and Authorizations	76
5.6.1 State of Hawai'i, Department of Health, Compliance Branch	76
5.6.2 State of Hawai'i, Department of Health, Clean Water Branch Requirements	76
5.6.2.1 National Pollutant Discharge Elimination System	77
5.6.2.2 Section 401 Water Quality Certification	77
5.6.3 State of Hawai'i, Department of Health, Wastewater Branch	77
5.6.3.1 Plans Approval	77
5.6.3.2 Individual Wastewater System Permit	77
5.6.4 Department of Health, Sanitation Branch	77
5.6.4.1 Application for Food Establishment	77
5.6.5 State of Hawai'i, Department of Land and Natural Resources, Office of Conservation and Coastal Lands	78
5.6.5.1 Conservation District Use Permit	78
5.6.6 State of Hawai'i, Department of Land and Natural Resources, Division of Forestry and Wildlife	78
5.6.7 State of Hawai'i, Department of Land and Natural Resources, State Historic Preservation Division	78
5.6.8 State of Hawai'i, Department of Land and Natural Resources, Commission on Water Resource Management	79
5.6.8.1 Stream Channel Alteration Permit	79

5.6.8.2 Stream Diversion Works Permit	79
5.6.9 State of Hawai'i, Disability and Communication Access Board	79
5.6.9.1 Plan Review	79
5.6.10 State of Hawai'i, Office of Environmental Quality Control	79
5.6.10.1 Hawai'i Environmental Policy Act	79
5.6.11 State of Hawai'i, Department of Transportation, Highways	80
5.6.11.1 Revocable Permit	80
5.6.11.1.1 Premises	80
5.6.11.1.2 Purposes	80
5.6.11.1.3 Rental	80
5.6.11.1.4 Security Deposit	80
5.6.11.1.5 Method of Payment	80
5.6.11.1.6 Reservation of Right to Amend the Terms and Conditions	81
5.6.11.1.7 Utilities and Other Charges	81
5.6.11.1.8 Repairs	81
5.6.11.1.9 Improvements, Alterations or Additions	81
5.6.11.1.10 Property Taxes	81
5.6.11.1.11 Termination	82
5.6.11.1.12 Attorney's Fees and Other Expenses	82
5.6.11.1.13 Environmental Compliance	82
5.6.11.2 Land Use and Occupancy Permit	82
5.6.11.3 Permit to Construct Within a State Highway	82
5.7 City and County of Honolulu Permitting	83
5.7.1 Department of Planning and Permitting	83
5.7.1.1 Building Permit	83
5.7.1.2 Flood Determination in General Floodplain District	83
5.7.1.3 Grading Permit	83
5.7.1.4 Grubbing Permit	83
5.7.1.5 Sewer Connection Permit	83
5.7.1.6 Storm Water Quality	83
5.7.1.7 Trenching Permit	84
5.7.2 Department of Transportation Services	84
5.7.2.1 Street Usage Permit	84
5.7.3 Honolulu Fire Department	84
5.7.3.1 Permit for Tank Installation	84
<b>6. Interim Site Maintenance Plan and Procedures</b>	<b>85</b>
6.1 Grounds Maintenance by State and State Contractors	85
6.1.1 State of Hawai'i	85
6.1.1.1 Vegetation Maintenance	85
6.1.1.2 Preservation of Historic Sites	85
6.1.1.2.1 Passive Preservation of Historic Sites	86
6.1.1.2.2 Active Preservation of Historic Sites	86
6.1.1.4 Maintenance of Utilities and Access, including Right of Way	86
6.1.1.5 Inspections	86
6.1.2 Hawaiian Electric Industries	87

6.2 General Safety, Environmental Management, and Sustainability	88
6.3 Emergency Procedures	90
6.3.1 General Provisions	90
6.3.1.1 Location and Nearest Emergency Room	90
6.3.1.2 Emergency Supplies to have on Site	92
6.3.1.3 Hurricane Kit	92
6.3.1.4 Staff Certifications	92
6.3.1.5 Emergency Contacts	92
6.3.2 Health and Safety Emergencies	94
6.3.2.1 Assault on Child or Staff	94
6.3.2.2 Blood borne Pathogen Exposure	94
6.3.2.3 Bomb Threats	94
6.3.2.4 Building and Site Evacuation	95
6.3.2.5 Disorderly Persons	95
6.3.2.6 Intruders and/or Trespassers	96
6.3.2.7 Kidnapping	96
6.3.2.8 Lockdown	97
6.3.2.9 Missing or Fleeing Child	97
6.3.2.10 Power Outage	98
6.3.2.11 Shelter in Place (see also Lockdown)	98
6.3.2.11 Site Evacuation for Children, Students, Minors, and Kūpuna	98
6.3.2.12 Suspicious Mail or Package	99
6.3.3 Environmental Emergencies	99
6.3.3.1 Earthquake	99
6.3.3.2 Flash Flood	100
6.3.3.3 Fire Alarm/Emergency	100
6.3.3.4 Hurricane	100
6.3.3.5 Severe Weather	100
6.3.4 Corona Virus 2019 and Emerging Public Health Precautions	101
6.3.4.1 CDC Interim Guidance for Schools and Day Camps	102
6.3.4.2 Beyond Recovery: Reopening Hawai'i	108
6.4 Cultural Monitoring	112
6.5 Land Management and Access	112
6.6 Communication	113
6.7 Insurance, Indemnification, and Liability	113
6.7.1 Insurance	113
6.7.1.1 Insurance Required under OHA MOA	113
6.7.1.2 Insurance Required for HDOT Revocable Permit	114
6.7.2 Vehicle Registration, License, and Safety Check	114
6.7.3 Indemnification	114
References	115

Appendices	117
Appendix A – 1987 MOA	118
Appendix B – 2008 Final IDP	169
Appendix C – 2010 CA#2550	355
Appendix D – 2012 CA#2550.01	370
Appendix E – 2019 Luluku MOA	385
Appendix F – 2019 Luluku Feasibility Report	398



## LIST OF FIGURES

Figure 1: Ancient Stone Agricultural Terraces at Luluku (Photo Courtesy BPBM, 2013)	25
Figure 2: Por. of Reg. Map No. 2929 (Jos. Aiu, 1933)	24
Figure 3 TMK Boundaries Relevant to Luluku Project Area (HoLIS 2013)	26
Figure 4: BPBM Map of Archaeological Sites near the Kāneʻohe Interchange	28
Figure 5: Luluku Project Area USGS Map. (USGS 1998)	38
Figure 6: Luluku Project Area, HECO Easement Access Map (HLID Team, OHA 2014)	40
Figure 7: Site 1887 Areas. (Modified from Leidemann et al. 2004, Fig. 2.1)	42
Figure 8: HLID Project Logic Model	46
Figure 9: Luluku Graphic Master Plan for the Built Environment	69
Figure 10: Conceptual Layout for Support Facilities, Parcel 20	69
Figure 11: Right of Way Map for Luluku Project Area	112

## LIST OF TABLES

Table 1. Roles and Responsibilities of the Parties to the 1987 MOA	17
Table 2. 2012 Modifications to Mitigation Funding	20
Table 3: Summary of Archaeological Site Descriptions	30
Table 4: 1987 MOA Site 1887 Active Preservation Recommendations for Features	31
Table 5: Historic Sites and Features in the Luluku Cultural Landscape	33
Table 6. Contact List for Program	37
Table 7: Luluku Project Area UTM Coordinates and Area Coverage	42
Table 8. Emergency Contacts	93

# ACKNOWLEDGEMENTS

The authors would like to mahalo the many individuals and organizations who made the completion of this report possible. First and foremost, we would like to send our deepest mahalo to the many kūpuna and community leaders whose long-standing dedication to the ‘āina of Luluku, Hālawā, and Ha‘ikū led to the mitigation efforts that supported the program outlined in this plan. For decades, these individuals persisted in their work to protect the cultural landscapes of these areas. This work would not have been possible without their vision, commitment, and aloha ‘āina.

The 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 - Hawaii Division, State of Hawaii 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 generous support, this plan would lack in accurate information on the history of this project and current developments.

Specifically, the authors would like to thank Mark Stride, 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 Strategic Action Plan for the Luluku project area covered under the Hālawā-Luluku Interpretive Development Project for the purpose of fulfilling the obligations of the Federal Highway Administration and Hawaii 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 Luluku.

This plan contains six (6) distinct parts: 1) Introduction, 2) History, 3) Stewardship Management Plan, 4) Strategic Action Plan, 5) Graphic Master Plan, 6) Interim 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.

The Introduction provides a brief overview of this plan and history of the H-3 project. The History provides a more detailed overview of the mitigation efforts, providing specific references to the various legal instruments that have been executed over the last three decades in an effort to comply with the various federal and state regulations that has jurisdiction over this project.

Section Two provides an important cultural history giving content to the overall importance of the work being led by the community and family in Luluku. This section also provides information as to the current conditions of the resources in this area and sets forth priorities for addressing historic preservation needs in the affected parcels.

Section Three is the Stewardship Management Plan as called for under Cooperative Agreement between the Office of Hawaiian Affairs and State of Hawaii Department of Transportation, Final Interpretive Development Plan, and the Memorandum of Agreement between the Luluku Farmers' Association and Aloha 'Āina Health and Learning Center and the 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 the Office of Hawaiian Affairs, Hawai'i Department of Transportation, and the U.S. Federal Highway Administration – Hawai'i Region as needed to complete the Office of Hawaiian Affairs's obligations to the mitigation project.

Section Four is the Strategic Action Plan of Luluku Farmers' Association and Aloha 'Āina Health and Learning Center. This plan details future programming activities and facility needs of the Selected Stewards as called for in the 2019 Memorandum of Agreement.

Section Five 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 Six is the Interim Site Maintenance Plan and Procedures as called for in the 2019 Memorandum of Agreement. It details the various site conditions necessary for Luluku Farmers' Association and Aloha 'Āina Health and Learning Center to operate the site safely and the conditions under which Luluku Farmers' Association and Aloha 'Āina Health and Learning Center shall steward the land in partnership with Hawai'i Department of Transportation. Should the property ever be transferred, the plan may need to be revisited for fine tuning of responsibilities.

'Āina Momona, a community 501(c)(3) took the lead in drafting this document in close cooperation and consultation with Luluku Farmers' Association and Aloha 'Āina Health and Learning Center and Hālawā-Luluku Interpretive Development Project.

# PROPERTY INFORMATION

**Stewards/Applicant:** Luluku Farmers' Association and Aloha 'Āina Health and Learning Center

**Mailing Address:** 45-559 Luluku Road #A-3 Kāneʻohe, HI 96744

**Phone:** Mark Paikuli Stride, Executive Director (808) 492-3882

**Email:** mpaikulistride@yahoo.com

**Landowner:** State of Hawai'i Department of Transportation

**Lease / License Holder:** N/A

**Property Address:** Not available

**Tax Map Key (TMK):** [1] 4-5-041: Right of Way and [1] 4-5-041:003

**State Land Use District:** Conservation

**County Zone:** P-1

**Property Acreage (Property Area):** Parcel 14 (approximately 8 acres), Parcel 15 – part of TMK [1] 4-5-041:003 (approximately 2 acres), Parcel 20 – originally a subdivision (Lot B) of TMK [1] 4-5-041:017 but is now included in the Hawai'i Department of Transportation Right of Way and no longer has a TMK designation (10.87 acres)

**Farm Service Agency Tract Number (if available):** N/A

**Proposed Acreage for Stewardship Management (Project Area):** Approx. 21 acres

**Approximate Elevation:** Ranging between 62 feet to 716 feet AMSL

**Soil Composition:** The area contains Hanalei silty clay and Lolekaa silty clay soils.

**Rainfall:** The average annual precipitation each year is 37.12 inches, with the rainiest months between October (3.03 inches on average) through April (3.07 inches on average). The rainiest month is February, with 5.75 inches of average rainfall. The dry season runs from May (with 2.05 average rainfall) through September (1.97 average inches), with the driest month being August, with 1.65 inches average rainfall.

**Vegetation Zone:** D-1

**Perennial or intermittent stream courses:** Luluku Stream runs perennially through the loop parcel and adjacent to Parcel 20.

**Agent Information:** Trisha Kehaulani Watson, J.D., Ph.D.

**Address:** 4348 Waiʻālae Ave. #254 Honolulu, Hawai'i 96816

**Email:** admin@honuaconsulting.com

**Phone:** (808) 392-1617

**Date of Plan Completion or Revision:** August 2020

## SIGNATURES

**Professional Resource Consultant Certification:** I have prepared this Stewardship Management Plan. Resource Professionals have been consulted and/or provided input as appropriate during the preparation of this plan.


Prepared by: Trisha Kehaulani Watson, J.D., Ph.D., Owner, Honua Consulting

Professional Resource Consultant's Signature:  \_\_\_\_\_

Date: May 14, 2021

**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: Mark Stride, President, Aloha 'Āina Health Center, Inc. for the Luluku Farmers Association and Aloha 'Āina Health and Learning Center

Applicant's Signature:  \_\_\_\_\_

Date: May 14, 2021

**Office of Hawaiian Affairs Approval:** This plan meets the criteria established in the Office of Hawaiian Affairs Memorandum of Agreement No. 19-01 & Cooperative Agreement 2550.01


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

Signature:  \_\_\_\_\_

Date: Apr 21, 2021

**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, Highways Division

Signature:  \_\_\_\_\_

Date: May 4, 2021



# ABBREVIATIONS

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

# 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-Luluku 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 Luluku. 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 Highway project. Signatories include the Hawai‘i State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation (ACHP), and the Federal Highway Administration (FHWA). The State of Hawai‘i 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 an NHO identified in the NHPA, 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.*

## 1.4 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.*

## 1.5 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 2550.01 (6/20/2012 Amendment)

*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 as additional consultation was needed and additional follow up studies were requested by the WG, HLID, HDOT, and FHWA.



"Original Budget" - August 10, 1999			Proposed Budget from OHA - March 2012		
Item	Budget	Percent	Item	Budget	Percent
A. Preliminary Design of IDP	500,000.00	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	9,500,00.00	86.4%	Phase III - Implementation	3,077,038.48	28.0%
Other Reimbursable 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 Design 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 2. 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%)	

## 1.6 The 2019 Memorandum of Agreement Between OHA and Luluku Stewards

The IDP (Hālawā-Luluku Interpretive Development Project, 2008), published on December 12, 2008, identified site 50-80-10-1887, the Luluku Field Complex, 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 Luluku, would need to be formed to ensure the operations, maintenance, and program administration for any activities and built structures at the Luluku Field Complex after completion of the HLID project. The need for an SMP that required community commitment thus became apparent.

On February 19, 2016, OHA posted a solicitation, Request for Qualifications (RFQ) No. HLID-2016-01, for stewardship of the “HLID Luluku project area”, designated as Parcel 20, and portions of Parcel 14 and 15, as described in HLID’s “Project Descriptions: North Hālawā Valley and Luluku Project Areas,” dated July 28, 2014 (Hālawā-Luluku Interpretive Development Project, 2014). The Luluku Farmers’ Association and Aloha ‘Āina Health and Learning Center (LFA-AHLC) partnership was the sole qualified applicant to respond to the solicitation. OHA recommended the appointment of LFA-AHLC as the selected Stewards for the HLID Luluku project area to fulfill the role of the Stewards as identified in the 2008 Final IDP, and the LFA-AHLC partnership accepted the appointment on June 3, 2016.

On September 6, 2019, LFA-AHLC executed an MOA (See Appendix E, “Memorandum of Agreement: HLID 19-01”, 2019)), to set forth the understanding of the roles of LFA-AHLC and OHA as pertaining to the stewardship of the HLID Luluku Project area. The process for selecting the Luluku Stewards and developing the MOA is detailed below.

### 1.6.1 Selection Process

#### 1.6.1.1 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 Luluku. 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-2016-01.

#### 1.6.1.2 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-2016-01.

#### 1.6.1.3 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 Luluku. 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 Luluku 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.

### **1.6.1.4 Recommendation for Stewardship**

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





## 2. HISTORY



Figure 1: Ancient Stone Agricultural Terraces at Luluku (Photo Courtesy BPBM, 2013)

### 2.1 The Cultural Landscape of Luluku

Luluku is an ‘ili ‘āina (smaller land division) located in the ahupua‘a (larger land division) of Kāne‘ohe in the moku (district) of Ko‘olaupoko, mokupuni (island) of O‘ahu. Kāne‘ohe is considered to be home to some of the most complicated terrace systems in the islands, which can only be comprehended in light of the stream system. Luluku stream begins at an elevation of 2,300 feet under Pu‘u Keahiakahoe, and joins Kamo‘oali‘i stream further downstream at an elevation of 110 feet. Hi‘ilaniwai stream meets Luluku stream near the project site which eventually meets Kamo‘oali‘i stream, which then joins with Kāne‘ohe stream and empties into the bay near the Waikalua Loko I‘a (fishpond).

This stream complex watered some of the finest agricultural terraces throughout Kāne‘ohe and its many ‘ili ‘āina. Due to its complex terraces and stream system, Kāne‘ohe has always been one of the most active communities in planting and growing kalo (taro) and is historically noted for being a land section in a high state of cultivation. The terraces found in Kāne‘ohe, including those found in Luluku, were so extensive that it was found unnecessary to terrace the interior slopes as it was done in other ahupua‘a by kānaka kahiko (traditional Hawaiians).

At the head of Luluku stream, beneath Pu‘u Keahiakahoe, is where three streams come together to form the chief water supply of Kāne‘ohe. These streams are Hi‘ilaniwai, Kahuaiki, and Māmalahoa; according to mo‘olelo (stories or tradition) they are each considered to be wives of Kāne, one of the four main Hawaiian gods. Tradition says that Kāne could not meet with any of his wives separately or they would become jealous and would divert the course of their water and the people would suffer. All three streams meet at the head of Luluku stream, where they can enjoy each other’s company and decide how to best supply the people below with water.

The water of Hi‘ilaniwai was considered to be sacred and was used in ceremonies and religious rites. These rites included Huiwai rites, which were done to dedicate a child to the service of a deity or for a special purpose. The

waters that feed the terrace systems in Luluku and throughout Kāneʻohe are complex and powerful. They are responsible for the immense food production that occurs in Kāneʻohe and its ʻili ʻāina.

Kukuikāne was a heiau (place of worship) once located in Luluku at the foot of a ridge inland of Heʻeia. This heiau was the largest and one of the most important heiau in the region. In 1916, the heiau was destroyed by Libby, McNeill and Libby Co. in order to make way for their pineapple operations. The undertaking became a failure when the pineapples were attacked by a disease. Many believe that this was a result of the destruction of the heiau, which was reduced to a pile of stones and remnants of terraces and walls.

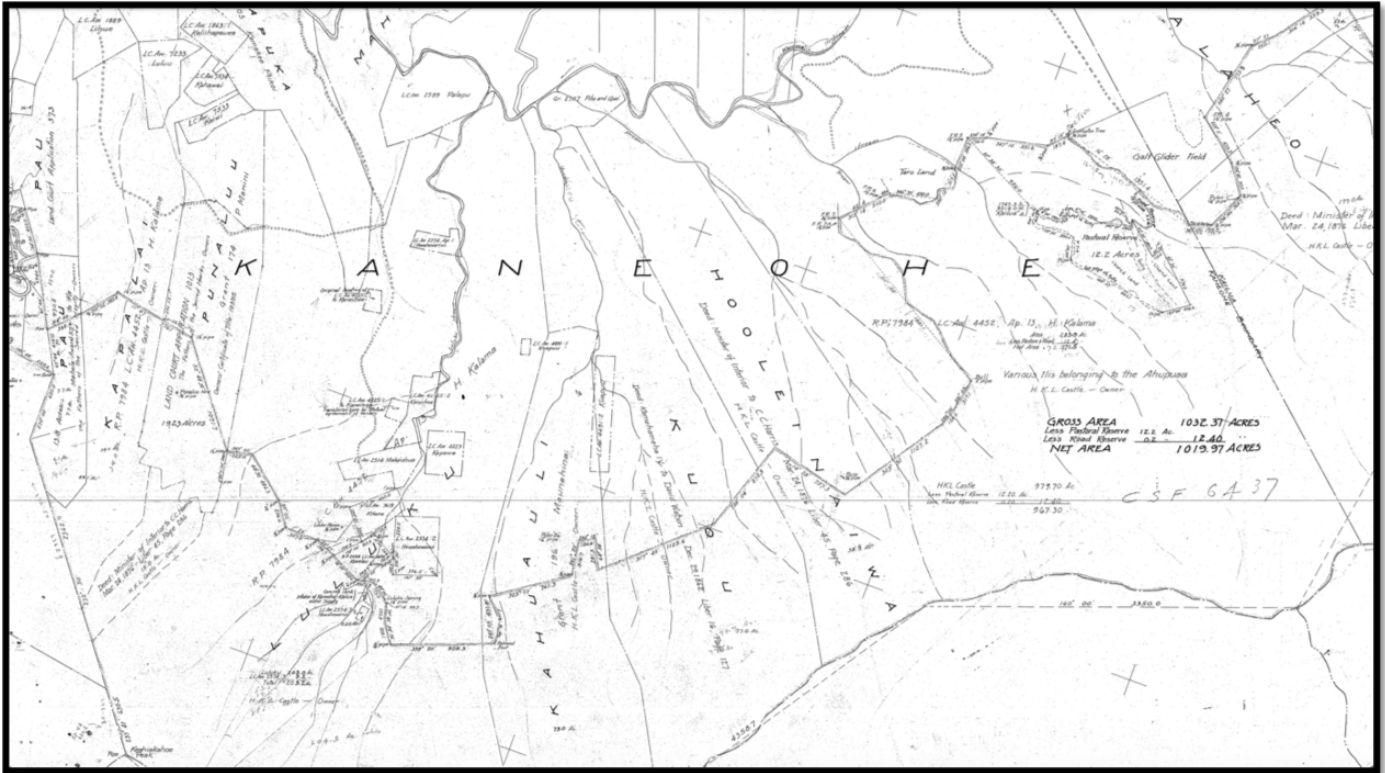


Figure 2: Por. of Reg. Map No. 2929 (Jos. Aiu, 1933)

The ʻili of Luluku is a wahi pana (storied place) that is at the heart of many traditions and moʻolelo and is a hub of endless resources. One of the most important resources that Luluku offers is its wai. Wai (fresh water) is considered to be a life-giving and death-dealing resource. Wai sustains us and is vital for the survival of all living things. It is also deadly, and in large forces, has deeply destructive properties. Luluku in its transitive verb usage means massacre, slaughter, destruction. It means to exterminate, ravage, lay waste, devastate. The history of Luluku, from past to present, as well as its name, reveals and personifies the life-giving and death-dealing qualities of wai. Luluku has a rich history of being a place of bounty, teeming with kalo and food resources and a healthy populace all due to the endless water resources available in the area (Sterling, 1978).



# 2.2 Description of Present Conditions

## 2.2.1 Existing Conditions

There is little information available about the existing conditions of the project area. Previous studies, including the IDP, draft Preservation Plan, and Feasibility Study all lack sufficient ecological information. Initially HLID proposed to prepare an environmental assessment (EA) for implementation of the IDP actions; however it was agreed to postpone it until HLID was further in the design process.

### 2.2.1.1 Property Description

The Lulukū project area consists of two land areas owned by HDOT near the Kāneʻohe H-3 Interchange. The primary location of LFA-AHLC’s educational programming will be located on the mauka (mountain) side of Hoʻomaluhia Park Access Road near the Kāneʻohe H-3 Interchange.

The project area (See Figure 3), which makes up HDOT land Parcel 20, was originally a subdivision (Lot B) of TMK: [1] 4-5-041:017, but it was later acquired by HDOT to be included as part of the H-3 right-of-way (ROW) and therefore this parcel no longer has its own unique TMK number designation. This portion of the project area is accessed through Hoʻomaluhia Park Access Road, which also serves as the entrance road to Hoʻomaluhia Botanical Garden.

Lot A of TMK [1] 4-5-041:017 is owned by Koʻolau Land Partners, LLC (KLP). While not part of the mitigation project, KLP is an important partner to the Stewards and community as some of the educational and agricultural activities that are part of the Stewards’ program take place on this land. Furthermore, the same terrace system on HDOT property extends into KLP lands.

The “Loop Area” actually consists of two HDOT parcels, Parcels 14 and 15. The physical off-ramp loop was created by the H-3 project; this loop was in fact modified during the design phase of the project specifically to attempt to limit the adverse impacts the project would have on historic properties that exist in the area.

These parcels are currently zoned P-1, which is a restricted preservation district.

### 2.2.1.2 Existing Vegetation and Ground Cover

The property is largely overgrown with invasive species. An updated biological evaluation should be completed to properly assess the condition of the flora and fauna in the property area. No such recent evaluation exists, although HLID did advocate for one as part of the environmental review process.

### 2.2.1.3 Soils

The area generally consists of the following types of soils.

HnB	Hanalei silty clay, 2 to 6 percent slopes
LoB	Lolekaa silty clay, 3 to 8 percent slopes
LoC	Lolekaa silty clay, 8 to 15 percent slopes

#### 2.2.1.4 Water Resources

Luluku Stream runs through the Loop Area.

#### 2.2.1.5 Ecosystem Health, Function and Threats

A full assessment of ecosystem health, function and threats should be completed.

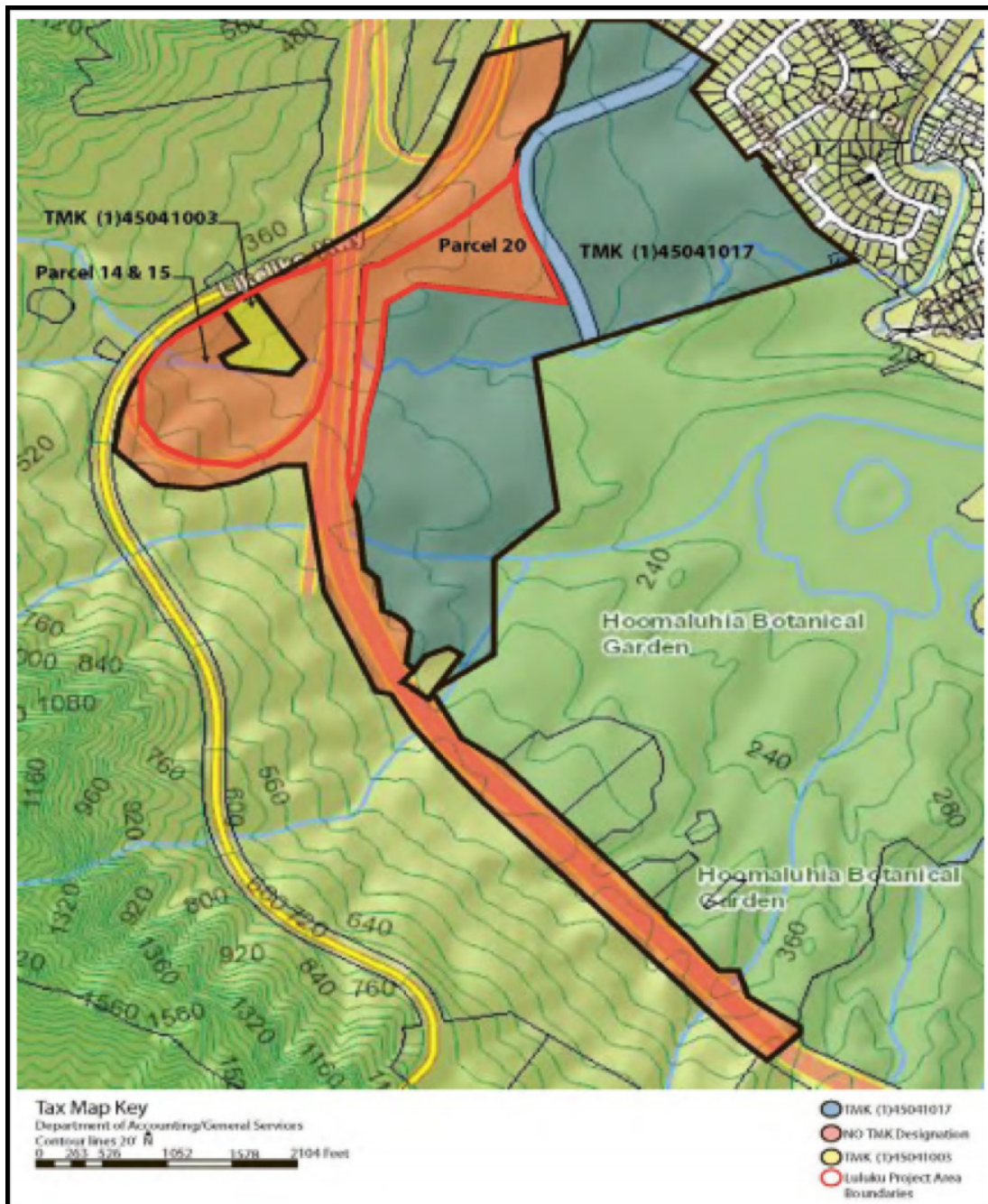


Figure 3 TMK Boundaries Relevant to Luluku Project Area (HoLIS 2013)

## 2.3 Historic Preservation

During the planning, design, and construction phases of the H-3 project, Bernice Pauahi Bishop Museum (BPBM) was contracted to conduct archaeological surveys, reconnaissance studies, and data recovery in the project area. Numerous studies were conducted over a period of decades.

As part of their excavations, BPBM dug dozens of trenches for the purpose of conducting data recovery at historic sites (Allen J. a., 1987). For reasons that remain unclear today, these trenches were never filled once the archaeological work was completed. It is estimated that they were created in the 1980s and early 1990s. As of this writing, they still remain open. The failure to close these trenches in compliance with best management practices that applied when the excavation work took place caused additional adverse impacts to properties within the Luluku Discontiguous Archaeological District which were not addressed in the Section 106 process that culminated in the 1987 MOA. They also present a safety concern for anyone who enters the area.

The adverse impacts that have resulted from these abandoned trenches has been catastrophic to the historic sites. Many of the valued historic walls that have been central cultural features of these National Register eligible properties have been severely damaged and degraded. It has taken many years, but HDOT is currently working with the Stewards to address these impacts. Steps toward full restoration and preservation of the historic sites are outlined below.

### 2.3.1 Original Site Conditions and Recommendations

Based on the original reconnaissance work done by BPBM in the 1970s and 1980s, the sites and features in Luluku were given treatment recommendations of either “Preservation” or “Rehabilitation” based on traditional site function, archaeological recommendation (preservation vs interpretive), integrity and the presence of burials (Allen J. a., 1987). The 1987 MOA also lists specific features of Site 1887 to be rehabilitated. A budget was set for the rehabilitation and preservation work for the Luluku project. The IDP (Hālawā-Luluku Interpretive Development Project, 2008) called for the work to be bid upon by a Native Hawaiian cultural Master Mason. This would later come to include a C-31 Masonry License in a Request for Proposals released by HLID in 2015. In the IDP it was noted that any proposed work that needed to be performed that exceeds the budget will need to be completed in a later phase as funding and capacity allows in accordance with this SMP.

Through discussions between HLID, LFA-AHLC, HDOT and FHWA, it was determined that the use of an outside cultural Master Mason was not necessary for the historic preservation work in Luluku as a C-31 license was not really required for procurement purposes. Having masons not from the area exclusively work on the project was also questioned by the Stewards of the area. The Stewards requested that cultural practitioners from the area be given the opportunity to do this work themselves as part of the mitigation process and HDOT and FHWA concurred with that request.

### 2.3.2 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.



HDOT will procure a condition assessment for all the Luluku historic sites within the HLID project area. In addition to the impacts of the BPBM excavation work, there are also impacts from Hawaiian Electric Company (HECO) activities, and a general lack of maintenance in the area.

### 2.3.3 Preservation Plan

The 1987 MOA (“Memorandum of Agreement”, 1987) requires the development of a preservation plan to facilitate the appropriate preservation actions in the Luluku project area. It is the plan that the SMP, SAP, Graphic Master Plan, and Interim Site Maintenance Plan and Procedures (ISMPP) will be prepared concurrently with the development of the Preservation Plan.

As shown in Figure 4, the historic sites are primarily located in the Loop Area (also known as the “tear-drop”) and the north and west portions of Parcel 20. Sites -1887, -1905, -1900, and a portion of -1895. Sites -1899 and -1896 are both within the larger H-3 project area but outside (although adjacent to) the Luluku Project Area. Site -4483 occupies the northern boundary of Parcel 20. Site -1897 occupies a portion of the

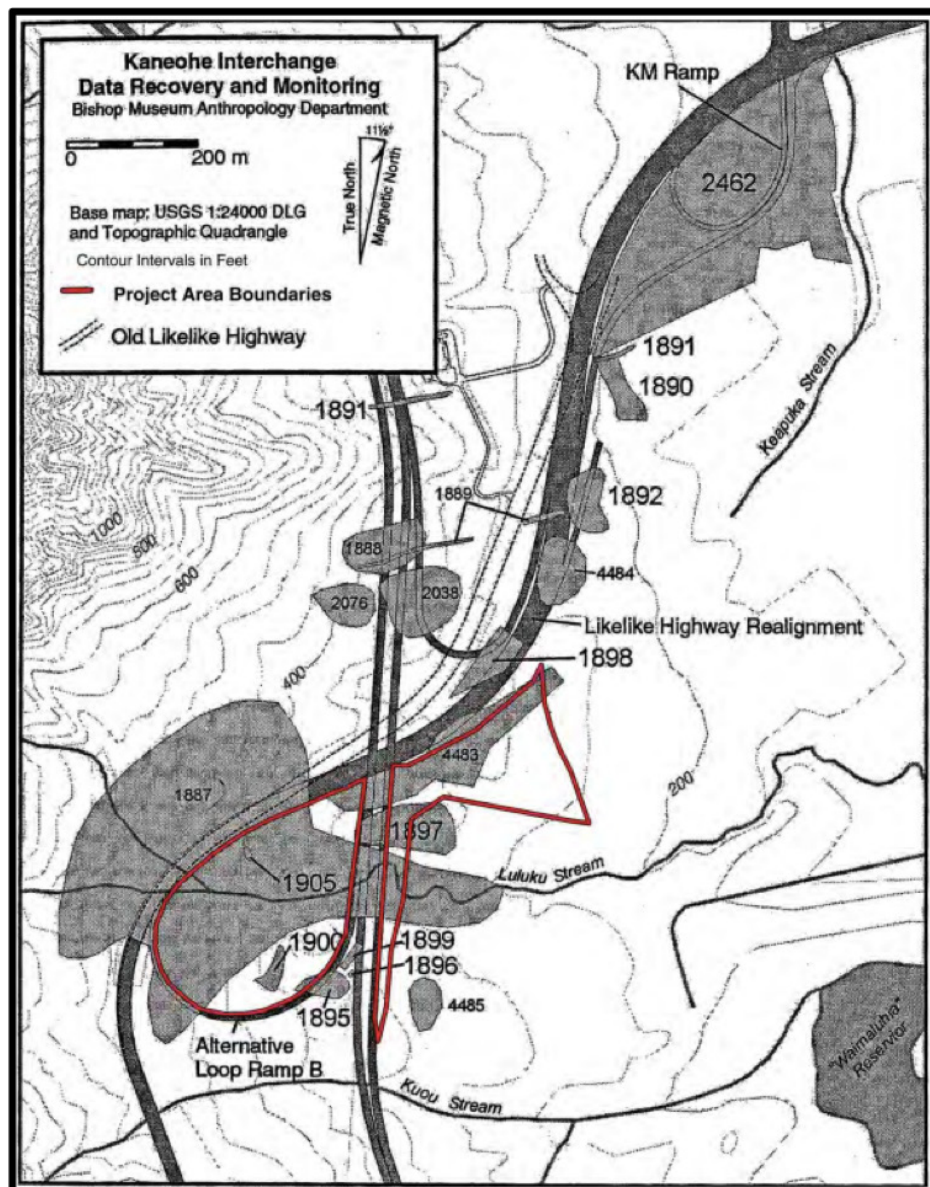


Figure 4: BPBM Map of Archaeological Sites near the Kaneohe Interchange (Modified from Leidermann et al. 2003)

west boundary and extends into the H-3 access road. Site -1887, while primarily located in the Loop Area, does extend across the H-3 access road and into the western boundary of Parcel 20.

None of the immediate LFA-AHLC educational or conservation program activities are planned for the Loop Area or within the historic sites located on Parcel 20. The temporary accessory structures to the farm operations are being planned for the eastern boundary of Parcel 20 that runs adjacent to the Park Access Road on Ho'omaluhia Botanical Garden property. Currently, and for the immediate future, all agricultural activities are taking place on KLP property.

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 preservation plan for the Luluku Project Area that will conform to all applicable NHPA requirements and relevant Hawaii Administrative Rules (HAR) when developing the preservation plan. The preservation plan for the Luluku project area will detail instructions for preservation (protection and stabilization) and rehabilitation (repair, replacement, or alteration). A greater emphasis will be placed on rehabilitation and long-term maintenance as the 1987 MOA preservation plan was not very detailed in this regard. Long-term maintenance actions will need to be updated in the SMP when the forthcoming preservation plan has been published. 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.

The only site not recommended for rehabilitative/preservation work is Site #50-80-10-4483. According to an archaeological study (Allen, Lennstrom, Dolan, & Leidemann, 2002) in 2002, the site is considered destroyed and has already yielded the necessary archaeological information to satisfy mitigation. However, if this recommendation is unacceptable to SHPD, the proposed farming area can be moved out of the bounds of Site #50-80-10-4483. Table 3 is provided on the next page summarizing the archaeological descriptions, HLID's recommendations, and phasing. Following this table, are plans for the two major NPS treatments (preservation and rehabilitation) emphasized in our work.

LFA-AHLC will work with the contractor selected by HDOT to complete the preservation plan and agrees to cooperate fully with the directives of the preservation plan as approved by SHPD.

Table 3: Summary of Archaeological Site Descriptions

SITE# 50-80- 10-	NRHP Criteria <sup>2</sup>	Integrity	Date	Function	Features	HLID Recommend	Phase
1887	*A, C, D	Mostly Excellent, Some Poor	Traditional and Post- Contact	Agricultural, Habitation	Lo'i terraces, rock alignments, pits	**Rehabilitation	I and II(‡)
1905	*A, C, D	Excellent	Post- Contact	Burial	Rectangular rock align- ments	Avoidance and Stabilization	I
1895	*A, C, D	Good	Traditional and Post- Contact	Habitation, burial	Imu	Avoidance and Stabilization	I
1897	*A, C, D	Good to Fair	Traditional and Post- Contact	Habitation, burial, charcoal kiln	Cobble and rock mounds, rock alignments	Avoidance and Stabilization	I
1900	*A, C, D	Good	Undetermined	Agricultural	Linear rock mound, rock dam, trail segment/ marker	Avoidance and Stabilization	I
4483	D	Poor (Destroyed)	Traditional and Post- Contact	Habitation	Imu, charcoal kiln, post molds	Farming	I

<sup>2</sup>Note:

(\*) Eligible as Luluku Archaeological Discontiguous District (SIHP# 50-80-10-2914)

(\*\*) Only specific features of Site 1887 are recommended for active preservation. All other features not listed on Table 3 are slated for passive (avoidance and stabilization) preservation

(‡) HLID suggests that Area 3 and a portion of Area 5 be rehabilitated in Construction Phase II by the stewards if funding allows.

Table 4: 1987 MOA Site 1887 Active Preservation Recommendations for Individual Features

Feature <sup>3</sup>	Area	Recommendation	Function
1	1 and 7	Interpretive Display	Retention wall (extends into Area 7)
2	7	Interpretive Display	Activity area (rock face)
3	1	Interpretive Display	Agricultural terrace, pond field
4	1	Interpretive Display	Agricultural terrace, pond field
5	1	Interpretive Display	Agricultural terrace, pond field
6	1	Replant Taro	Agricultural terrace, pond field
7	1	Replant Taro	Agricultural terrace, pond field
8	1	Replant Taro	Agricultural terrace, pond field
9	1	Interpretive Display	Agricultural Terrace and stream exclusion (platform)
10	1	Interpretive Display	Agricultural terrace, pond field
11	2	Interpretive Display	Agricultural Terrace, pond field (extends slightly westward beyond Area 1)
12	2	Interpretive Display	Agricultural terrace, pond field
13	2	Interpretive Display	Agricultural terrace, with irrigation ditch
14	2	Interpretive Display	Agricultural terrace, pond field
15	2	Interpretive Display	Agricultural terrace, pond field (with mound)
16	2	Interpretive Display	Agricultural terrace, pond field (with mound)
16 A	2	Replant Taro	Agricultural terrace, pond field (with mound)
17	2	Interpretive Display	Agricultural terrace, pond field
18	2	Interpretive Display	Agricultural terrace, pond field
19	2	Interpretive Display	Agricultural terrace, pond field

<sup>3</sup>Note: With the exception of Features 99, 100, 102, and 131, all other features either listed as “Interpretive Display” or “replant taro” will be rehabilitated for contemporary agricultural use. The archaeology report by Leidemann et al. (2004) states that eligible areas were at one time possibly dryland agricultural but then later converted to wetland. For this reason, HLID foresees that a variety of traditional Hawaiian crop and utilitarian plants (i.e. sweet potato, ‘ōlena), not just taro, may be planted in these areas. Local farmers of the Ko’olau area may be asked for their recommendation on which traditional crops are likely to thrive in the area.

Feature <sup>3</sup>	Area	Recommendation	Function
20	2	Interpretive Display	Agricultural terrace, pond field
21	2	Replant Taro	Agricultural terrace, pond field
21A	2	Replant Taro	Agricultural terrace
22	2	Interpretive Display	Agricultural terrace, pond field
23	2	Interpretive Display	Agricultural terrace, pond field
24	2	Interpretive Display	Agricultural terrace, pond field
25	2	Replant Taro	Agricultural terrace, pond field
26	2	Replant Taro	Agricultural terrace, pond field
27	2	Interpretive Display	Agricultural terrace, pond field
28	2	Replant Taro	Agricultural terrace, pond field
29	2	Interpretive Display	Agricultural terrace, pond field
30	2	Replant Taro	Agricultural terrace, pond field (with mound)
30A	2	Replant Taro	Agricultural terrace, pond field (with mound)
31	2	Interpretive Display	Agricultural terrace, pond field
32	2	Interpretive Display	Agricultural terrace, pond field
33	2	Replant Taro	Agricultural terrace, pond field (with mound)
34	2	Interpretive Display	Agricultural terrace, pond field
35	2	Interpretive Display	Agricultural terrace, pond field
36	2	Replant Taro	Agricultural terrace, pond field (with mound)
37	2	Interpretive Display	Stream exclusion structure (platform)
38	2	Interpretive Display	Agricultural terrace, pond field (with mound)
39	2	Interpretive Display	Agricultural terrace, pond field
40	2	Interpretive Display	Agricultural terrace, pond field



Feature <sup>3</sup>	Area	Recommendation	Function
41	2	Interpretive Display	Agricultural terrace, pond field
42	2	Interpretive Display	Agricultural terrace, pond field
49	2	Interpretive Display	Agricultural terrace, pond field
98	2	Interpretive Display	Agricultural terrace, pond field
99*	11	Interpretive Display	Possible dryland agricultural terrace (with rock alignments)
100*	11	Interpretive Display	Possible dryland agricultural terrace (with rock alignments)
102*	11	Interpretive Display	Trail or 'auwai (rock alignment)
131*	n/a	Interpretive Display	Historic Japanese bomb shelter
132*	7	Interpretive Display	Seepage well (rock facing; possible source for channeling water to lower lo'i via gully/ditch)

Table 5: Historic Sites and Features in the Luluku Cultural Landscape

B.P. BPBM Site No. (50-0a-)	State of Hawaii Site No. (50-80-10)	Name
G5-68	1902	Luluku Rock Mound
G5-71	1905	Luluku Ridgetop Site
G5-85	1887	Luluku Field Complex
G5-86	1888	Punalu'u Mauka Terraces and Historic Features
G5-87	1889	Luluku / Punalu'u Mauka Boundary Wall
G5-88	1890	Punalu'u Mauka Cemetery and Historic Compound
G5-89	1891	Punalu'u Mauka / Kapalai Boundary Wall
G5-90	1892	Punalu'u Mauka Historic Refuse Dump
G5-91	1893	Kea'ahala Platform and Stone Mounds
G5-92	1894	Pa'u / Kea'ahala Boundary Wall
G5-93	1895	Luluku Historic Refuse Dump

B.P. BPBM Site No. (50-0a-)	State of Hawai'i Site No. (50-80-10)	Name
G5-94	1896	Luluku Historic Refuse Cache
G5-95	1897	Luluku Feature Cluster
G5-96	1898	Luluku Mound and Artificial Cave
G5-97	1899	Luluku Rectangular Alignment
G5-98	1890	Luluku Clearing Mound Cluster
G5-99	1901	Pa'u Charcoal Kiln and Feature Cluster
G5-105 (feature 17)	1967	Luluku and Kahuauli Feature Clusters

## 3. STEWARDSHIP MANAGEMENT PLAN

### 3.1 Introduction to the Stewardship Management Plan

This SMP speaks to the various programs and activities that LFA-AHLC will develop and implement to support the fulfillment of the 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 Luluku HLID Project Area. Work will be done in accordance with this plan and the 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 Interim Site Management Plan and Procedures (ISMPP) outline the starting point for LFA-AHLC to begin implementing their programs

### 3.2 Selected Stewards: Luluku Farmers' Association and Aloha 'Āina Health & Learning Center

LFA and its community partner AHLC (known collectively as LFA-AHLC) are willing Stewards of the HLID project area. Accepting stewardship and farming kuleana for this property fulfills the missions of LFA and AHLC while honoring the agricultural legacy of Luluku which then provides for the broader community. LFA and its predecessor group, Luluku Banana Growers Cooperative, have a substantial farming history in Luluku that ties to Luluku's rich ancient history as part of the most extensive early wetland agricultural complex on O'ahu.

LFA-AHLC has been operating in Luluku, Kāne'ohe since 1999 and continues to operate there today, working with secondary and elementary schools, families, community organizations, local farmers, environmental stewardship programs, University of Hawai'i colleges, nursing and health programs, and more. AHLC provides hands-on family education and enrichment through mālama 'āina, caring for the land. Their organizational mission is to help build healthy communities through holistic nutrition and healthy lifestyle programs. They believe that our personal health is intimately linked to the well-being of the land. By preserving native plants and perpetuating Hawaiian agricultural practices, we can revitalize an important aspect of Hawaiian culture that brings greater health to our land and communities. We understand that for Native Hawaiians, culture has always been an integral part of "agri-culture," and that by sustaining traditional practices we help preserve our cultural integrity for future generations, while also bringing greater health to our bodies, families, and communities.

LFA-AHLC seeks to accomplish its mission by fostering community participation in traditional Hawaiian sustainable farming, preparing traditional Hawaiian foods, and learning and teaching the healing power of a traditional Hawaiian diet, all with an emphasis on local food security for the health and welfare of Hawai'i's current and future generations.

The organization spent much time farming and later living in Luluku with Caroline and Anthony Sanchez who farmed bananas and lived in Luluku since the 1950s. Grandpa and Grandma Sanchez was how many lovingly referred to them. Stories of their life in Kāne'ohe, farming and raising their family, gave many a glimpse of what Kāne'ohe once was – a thriving agricultural community of families. Grandma Sanchez asked for help from Stewards, and in 2006 they all reformed the Luluku Farmers' Association as a support platform to protect the farmers and agriculture in Luluku. The kūpuna (grandparents), Grandma and Grandpa Sanchez, gave many Stewards the kuleana (responsibility) to mālama (care for) and protect Luluku after their passing.

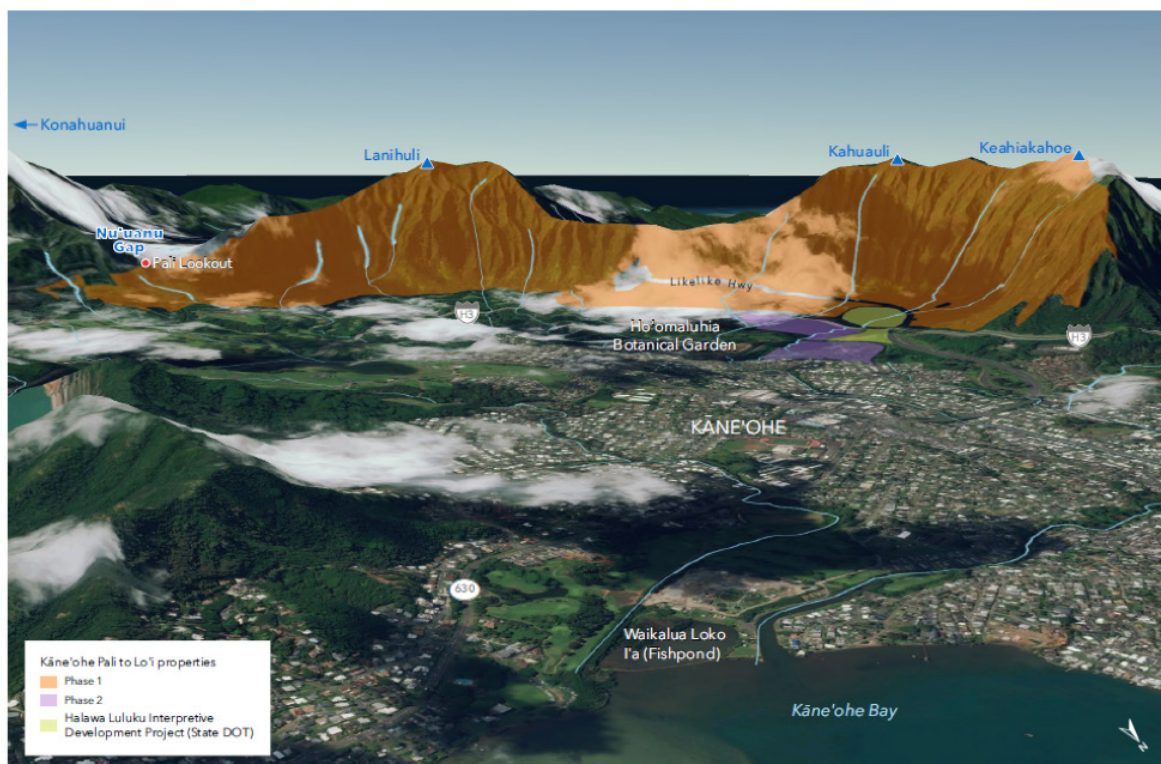
In 2009, Luluku Farmers' Association received its 501(c)(5) agricultural non-profit status, with a mission to: 1) restore the once productive, both in ancient and in modern times, Luluku farmlands and secure these lands in agriculture for perpetuity; 2) create partnerships in the community that would allow the LFA to serve the community in a greater capacity; 3) become agriculturally and economically sustainable; and 4) obtain long-term leases and/or fee simple ownership for the Luluku farmers. The present effort before you to steward and protect the still fertile Luluku terraces, in partnership with AHLC could help to fulfill some of our kūpuna's dreams, which our missions encompass.

In addition, LFA is partnered with the 501(c)(3) nonprofit organization AHLC and serves as the Luluku host for countless schools and community programs in education, sustainability, cultural, reconciliation and pono choices, and family strengthening programs. Through both of these organizations, Luluku has served as a main project site for Castle High School's Po'okela Academy, Hawai'i Youth Correctional Facility, Ke Kama Pono (a Partners In Development Foundation program), and KUPU.

### 3.2.1 Strategic Partnerships

AHLC works closely with 'Āina Momona, another tax-exempt organization. 'Āina Momona works closely with AHLC to provide administrative support in Luluku. 'Āina Momona also provides fiscal support to AHLC and partners on their programming.

Additionally, The Trust for Public Land (TPL) and The Hawaiian Islands Land Trust (HILT) is assisting the Kāne'ohe community, local farming nonprofits, and the State to protect approximately 1,000 acres adjacent to the HLID Luluku site. Once acquired, TPL will transfer the lands to the State of Hawai'i Division of Forestry and Wildlife and local nonprofits focused on traditional Hawaiian farming and education. There is potential for the current Luluku Stewards and HDOT to work together with TPL for a fee-simple land ownership transfer of the HLID Luluku project properties and is something that is being further investigated for feasibility. See map below provided by TPL for their project boundaries in comparison to the HLID property boundaries.



### 3.3 Organizational Structure and Contacts

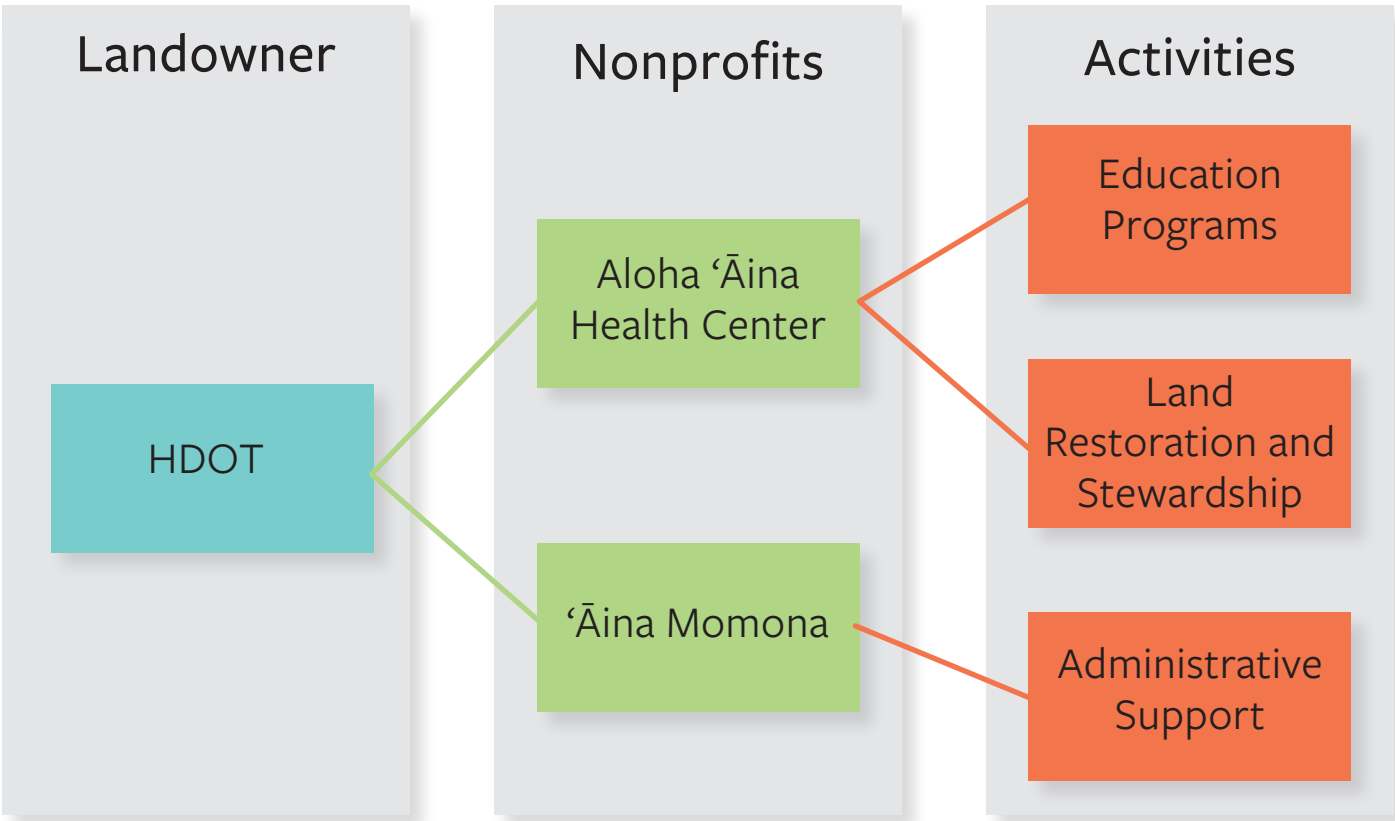


Table 6. Contact List for Program

Name	Position	Contact Number	Email
Mark Paikuli-Stride	Program Manager (LFA / AAHC)	(808) 492-3882	mpaikulistride@gmail.com
Chuck “Doc” Burrows, Ph.D.	Board Member (LFA / AAHC) / Conservation Adviser		chuckb@gmail.com
John Kalei Laimana	Board Member (LFA / AAHC)		johnlaim@hawaii.edu
Anuenue Punua	Board Member (LFA / AAHC)		lpunua@yahoo.com
Daylin-Rose Heather	Board Member (LFA / AAHC)		Daylinrose.heather@gmail.com
Kehau Watson, J.D., Ph.D.	Board Member (Āina Momona)	(808) 392-1617	Ainamomona1893@gmail.com
Jane Au	Program Manager (Āina Momona)		janeau@hawaii.edu

### 3.4 Luluku Project Area

The HLID Luluku project area land is owned by HDOT, located near the Kāneʻohe H-3 Interchange situated at the base of the Koʻolau mountain range in the ʻili of Luluku, in the ahupuaʻa of Kāneʻohe, moku of Koʻolaupoko, mokupuni of Oʻahu (See Figure 5).

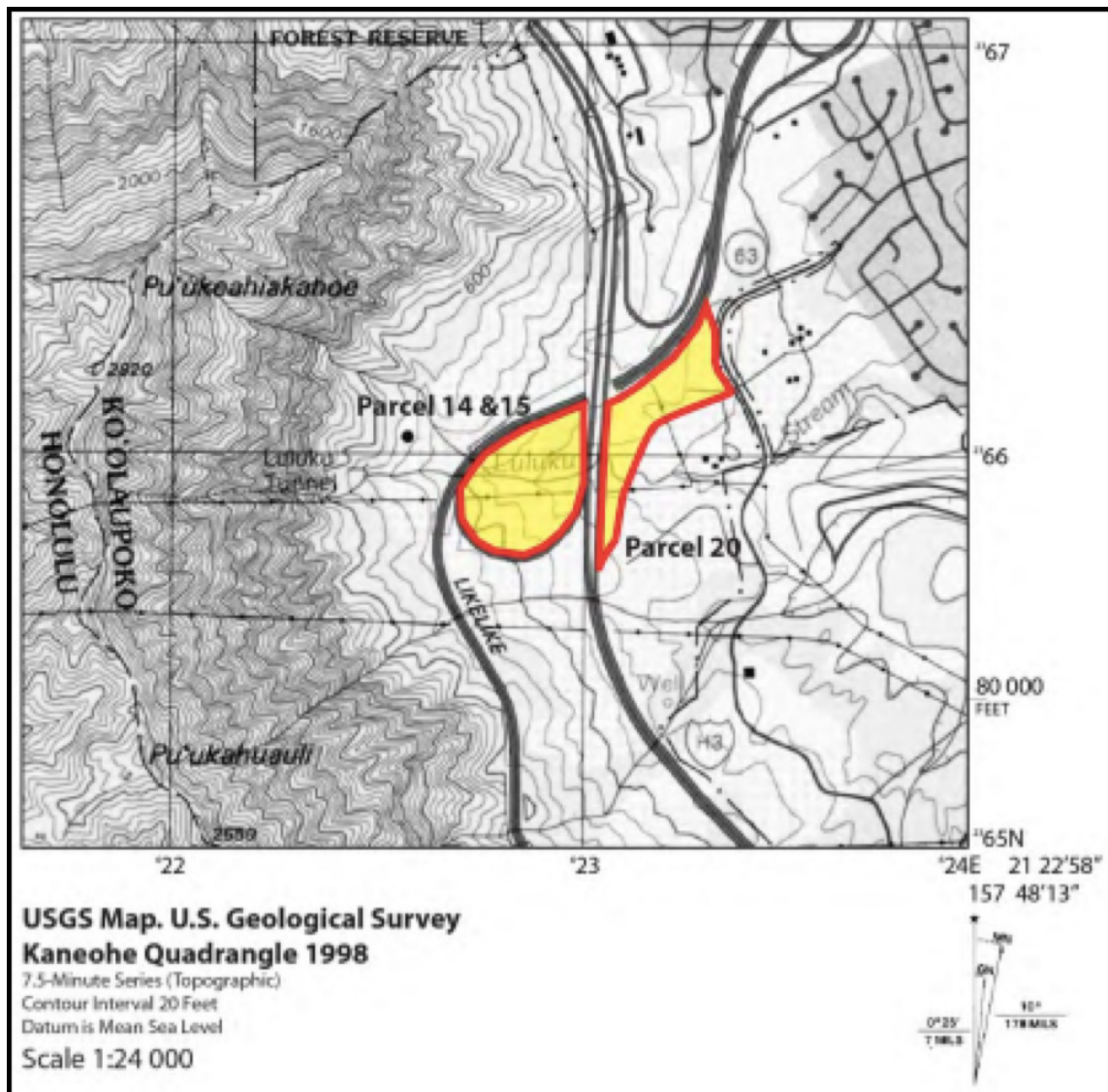


Figure 5: Luluku Project Area USGS Map. (USGS 1998)

The Loop Area is associated with two separate HDOT Parcels: 1) Parcel 14 (approximately 8 acres); and 2) Parcel 15 – part of TMK (1)4-5-041:003 (approximately 2 acres). A HDOT Rights of Way map is provided to show location of HDOT Parcels 14 and 15 (See Figure 6). The Loop Area is encapsulated by the Likelike Highway off-ramp (Ramp B) extending from the Interstate H-3. The area of the Loop Area enclosed by the Likelike off-ramp is approximately 10 acres.

The actual HLID Project Area boundary for the Loop Area is encapsulated within a fence which follows the border of the off-ramp loop closely. HDOT is currently in the process of generating a map with the fence line. This map will later be supplied to the Stewards. The Loop Area retains many cultural and archaeological sites associ-



ated with the area including agricultural terraces and retention walls, burials, and other sites with cultural significance. Luluku Stream, which served as an irrigation source in pre-Contact times, cuts through the archaeological sites. Because of its location and surroundings, this portion of land is difficult to access, but contains the most significant natural and cultural resources of the Luluku project area. Although restricted to the general public, permitted access is currently made possible via a dirt road and trail extending from Ho‘omaluhia Botanical Program and Parcel 20. The Northeast boundary of Parcel 20 is bordered by an existing guardrail and an old bypass road.

A vehicle access point to the Loop Area is also available towards the northeast corner of Parcel 20. To utilize this access point, a portion of the freeway guardrail, which is locked, can be removed upon permission by HDOT. However, any contractors seeking to use this access point will also need to comply with any HDOT requirements for traffic control. A locked access point in the fence exists within the Loop Area boundary towards the northwest apex. A dirt trail allows access to this gate.

A number of trenches left behind from the archaeological investigations within the Loop Area do pose a safety concern. Exact trench locations and sizes can be ascertained from the Leidemann et al. 2004 report (Leidemann, Dockall, Lennstrom, & Lebo, 2004). These trenches are currently being filled by HDOT and their contractor with knowledge about these sites.

Dumped vehicles and containers possibly containing hazardous materials (i.e. gasoline, refrigerant, and petroleum) located near archaeological Site 50-80-10-1897 within the northeast portion of the Loop Area needs to be assessed by the Stewards with a set of recommendations for mitigation. HDOT will then need to address this area and the Stewards will need to develop plans to minimize adverse effects to visitors.

The second piece of land, totaling 10.87 acres, is referred to HDOT Parcel 20. This piece of land was originally a subdivision (Lot B) of TMK [1] 4-5-041:017 (See Figure 6). However, Parcel 20 has recently been included as part of the Highway Right of Way and no longer has a TMK designation. Lot A of TMK [1] 4-5-041:017 is owned by KLP, LLC, and is not a part of this mitigation project. Parcel 20 can be accessed via Ho‘omaluhia Program Access Road. HLID will likely need to establish an agreement with Ko‘olau Land Partners to utilize HECO’s access road. A gate to the Ho‘omaluhia Botanical Garden is opened to the public daily between 8:00 am and 4:00 pm. The website for the Garden should be consulted for exact times and days. A series of trails and dirt roads extend through the Parcel 20; some of which connect to Parcels 14 and 15. Not all of these trails are currently mapped. Parcel 20 is bordered by the Interstate H-3 to the west and by a residential area to the northeast. The remainder of Parcel 20 neighbors Ho‘omaluhia Botanical Garden.

The project area lies within Vegetation Zone D-1 as delineated by Ripperton and Hosaka’s 1942 Bulletin (Ripperton, 1942). This area is characterized by low shrubs, large stands of introduced guava, occasional ‘ōhi‘a lehua (*Metrosideros*), hala, kukui, and various ferns and grasses. A majority of the invasive flora has become overgrown and unruly; creating some access difficulties and concerns regarding vegetation/landscaping management.

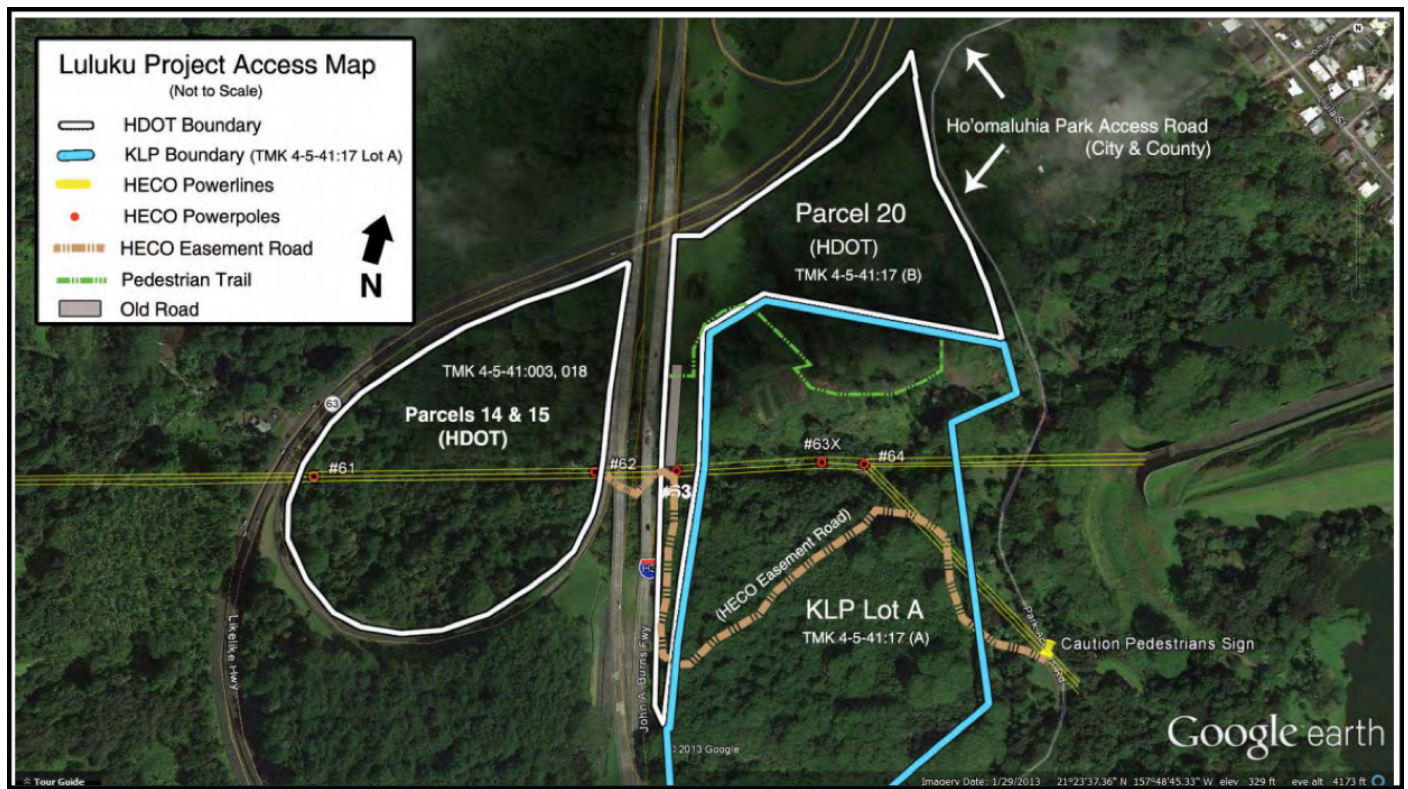


Figure 6: Luluku Project Area, HECO Easement Access Map (HLID Team, OHA 2014)

### 3.4.1 Brief Description of Vision for Stewardship Work

The Luluku Agricultural District shall be restored through the perpetuation of culturally appropriate science, engineering, and agricultural practices. Research will be demonstrated through the planting of primarily traditional Hawaiian kalo using ancient and contemporary techniques in water resource management and sustainable agricultural practices. The relationships between the land and its people are of both historical and cultural importance in the context of interpretations which emphasizes Luluku's ability to feed many people in the Kāne'ohe district and areas beyond (Hālawa-Luluku Interpretive Development Project, 2008).

Additionally, the Stewards will work with HDOT to repair, restore, and maintain the historic sites in the project area. Modest facilities will be designed and built to support the work being performed. The majority 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. HLID will work with the Stewards to optimize how best to utilize these funds for improvements.

### 3.4.2 Archaeological Site Locations

State Inventory of Historic Places (SIHP) #s 50-80-10-1887 (por.), -1905, -1895, -1897, -1900, and -4483 will be affected by the proposed scope of work for the Luluku project area (Refer Back to Figure 4). Sites -1887, -1905, -1895, -1897, and -1900 are also part of the Luluku Archaeological Discontiguous District Site SIHP# 50-80-10-2914. All sites fall within the Highway ROW. According to HDOT, this area was open for mitigation per the 1987 MOA ("Memorandum of Agreement", 1987). At the time of Interstate H-3 construction, no Area of Potential Effect (APE) was defined. Now, it is only the Highway ROW that suffices for defining where mitigation is to occur for this project. It is for this reason that the entire archaeological district is not included as part of this mitigation project. Portions (specific features) of Site -1887 and all of -1905 were chosen for this



project because they were recommended for “interpretive display” by archaeologists (Allen, Riford, Bennett, & Murakami, 1987) . For a specific list of features and areas targeted for rehabilitation, please refer back to Table 4 located within the Preservation Plan section. All other sites in their vicinity have been recommended for preservation in place. With conclusive evidence of burials at Site -1905 in the Leidemann et al. (2003) report (Leidemann, et al., 2003) , the site was later recommended for preservation only.

All of Site -1905, -1900 and most of Site -1887 (mauka) are encompassed in the Loop Area fence-line, but a portion of Site -1887 (makai) passes under the Interstate H-3 and extends east into Parcel 20. In the archaeological report (Leidemann, Dockall, Lennstrom, & Lebo, 2004), Site 1887 has been divided into a total of 12 areas (See Figure 7). The only exception to this is Feature 131, a historic Japanese bomb shelter, which is not part of any area. The feature could be designated as its own site and thus unbounded to any preservation commitments as it has nothing to do with the agricultural terrace system, but this would require coordination with SHPD. This shelter should, however, be secured for safety reasons. The feature sits between Areas 7 and 9.

The following Areas and Features will be rehabilitated in Construction Phase I: 1) selected portions of Area 1, approximately .6 acres (See Table 3 for complete list of features to be rehabilitated in this area); 2) selected portions of Area 2, approximately 1.6 acres (See Table 3 for complete list of features to be rehabilitated in this area); and 3) Area 7, Features 1, 2, and 132 (less than 1 acre). Although Feature 131 (no Area designation) has been designated as eligible for active preservation per the 1987 MOA, it will be safeguarded by the Stewards to protect future visitors of endangerment. HLID suggests Areas 3 (approximately .8 acres) be considered for rehabilitation in Construction Phase II. The remainder of features and areas not listed in Table 3 is set for preservation. Areas 3, 7, 8, 9, 10, 11, and 12-South of Site 1887 are within the Loop Area. Site 1887 continues on southeastward into Lot A of TMK (1)4-5-041:017. The areas of Site 1887 under the Interstate (Area 4), in Lot A (Area 6), and Area 12-North are not part of the Luluku project area. A majority of Area 5 of Site 1887 is on Parcel 20.

Sites -1895, -1897, -4483 span across multiple boundaries. A majority of Site -1895 lies outside the southeastern bounds of the Likelike off-ramp. Only a small part of -1895 lies in the Loop Area. The majority of Site 1897 spans TMK (1) 4-5-041:017 Lot A and Lot B. Heading west from Lot B, Site 1897 passes under the Interstate H-3 and extends into a small portion of the Loop Area. Once more, the areas under the Interstate H-3 and inside Lot A are beyond the bounds of the Luluku project area. A majority of Site 4483 lies within Parcel 20; however, small portions do extend beyond the northeastern and northern bounds of Parcel 20. A part of 4483 also passes under the Interstate H-3 extending into the northeast corner of the Loop Area. According to a 2002 study (Allen, Lennstrom, Dolan, & Leidemann, 2002), this site is considered destroyed.

Although UTM coordinates and area has been included in the BPBM archaeology reports for each site the exact perimeter has not been geo-referenced nor has the acreage of the sites been parceled according to project area boundaries. Only approximate acreage cover and locations are provided in this report. A table summarizing UTM location and area is provided in Table 7.

It is anticipated that the archaeologist will be clearing vegetation around the immediate vicinity of archaeology features for proper access, documentation and analysis while performing their work.

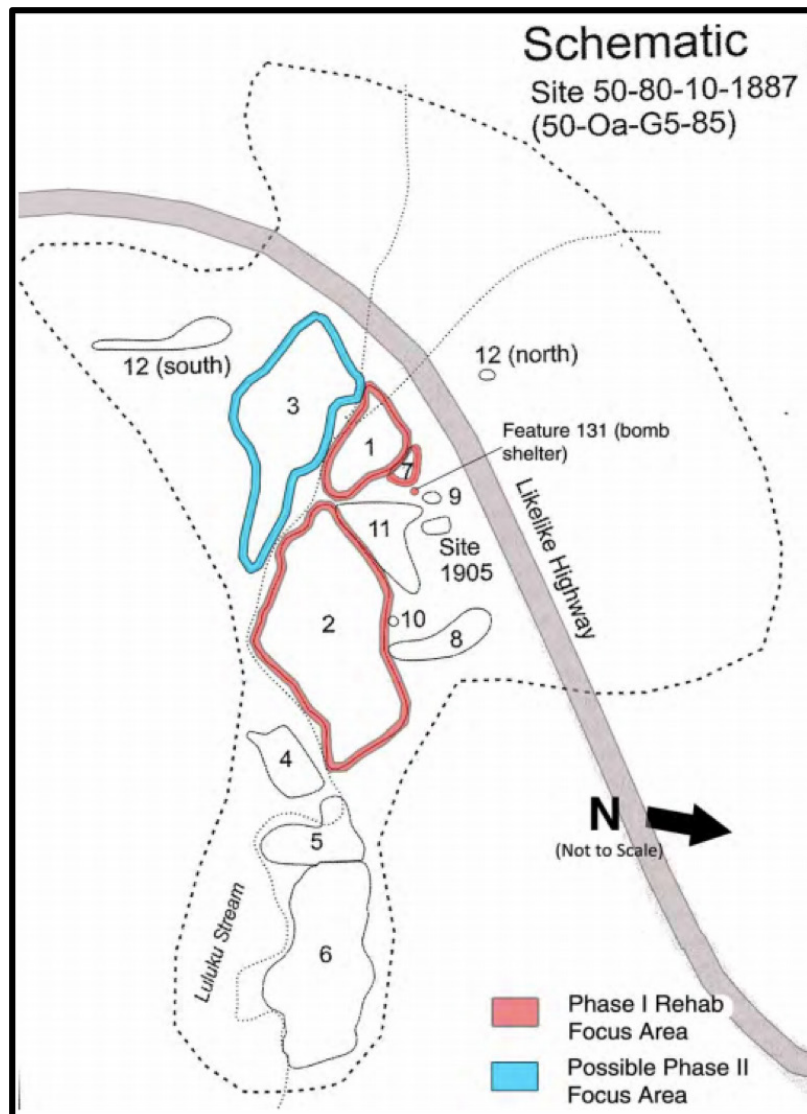


Figure 7: Site 1887 Areas. (Modified from Leidemann et al. 2004, Fig. 2.1)

Table 7: Luluku Project Area UTM Coordinates and Area Coverage

Site # (State)	BPBM # 50-Oa	Area (m)	Area (Acres)	Archaeological Recommendation	UTM Coordinates Zone 40- (E/N)
-1887	G5-85	161300	39.9	Interpretive Display	622520/2366700 (NW corner) 622770/2366370 (SE corner)
-1905	G5-71	199	.049	Preservation	622549/2366216
-1895	G5-93	2417	.6	Preservation	622670/2366011
-1897	G5-95	9232	2.28	Preservation	622795/2366254
-1900	G5-98	1394	.344	Preservation	622590/2366033
-4483	G5-152	18000	4.5	Preservation	Not provided

### 3.4.3 IDP Vision for Luluku Agricultural Terraces

The Luluku Project Area was once part of a large complex of agricultural terraces in pre-Contact times that were later divided and partially destroyed by the construction of the Likelike Highway in the 1950s. This legacy of disruption has been continued with the construction of Interstate H-3. The vision for Luluku has thus been to restore the “agricultural district”.

The Luluku agricultural terraces shall be restored through the perpetuation of culturally appropriate science, engineering, and agricultural practices. The planting of primarily native Hawaiian kalo using ancient and contemporary techniques in water resource management and sustainable agricultural practices will take place once restoration is complete. The relationship between the land and its people are of both historical and cultural importance in the context of interpretations which emphasizes Luluku’s ability to feed many people in the Kāneʻohe district and areas beyond.

Historically, Luluku has retained a land use that focused on agriculture due to its natural resources and geographical location. As a result, people have maintained an agricultural relationship with these lands over time. Though the intensity and depth of this relationship has changed over time, the cultural importance remains; thus, creating an opportunity to rehabilitate this relationship in tandem with the land and its resources. Luluku’s reputation and contemporary potential to feed (figurative to suggest: food, medicine, education, Hawaiian culture, and/or spirituality) the people in Kāneʻohe and its surrounding areas still apply and so drive the focus of this project site.

The site represents an inland component of the prehistoric settlement in Kāneʻohe and may provide indirect evidence relevant to understanding island-wide population expansion. It also constitutes the most extensive early wetland agricultural complex known on Oʻahu and contains a stratigraphic sequence reflecting a long period of continued use and development that probably began in early Hawaiian history. Significance is further enhanced by the excellent state of preservation of a large portion of site SIHP #1887. Although the surrounding area has been altered by 20th-century developments (roads and plantations), small areas of native vegetation still exist nearby in a rural setting, suggesting the relative integrity of Site 1887 (G5- 85) within its physical and cultural environment.

## 3.5 IDP Identified Impacts and Recommendations

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 Luluku Project Area (Hālawa-Luluku Interpretive Development Project, 2008).

### 3.5.1 Impacts

- Increase in soil erosion during construction
- Reduction of access to the site
- Change of land use from agriculture
- Introduction and expansion of non-native plants species, increased number of potential sites for establishment of new alien species
- Destruction of portions of the project site by Interstate H-3
- Reduced productive farm acreages and displacement of farmers who grew banana in the area and loss of productive, managed banana farmlands

- Contributed to the loss of knowledge and history of the area
- Disrupted water resources of the area through the channelization of streams under the highway, changing the stream course and access to the streams
- Altered water flows and flow capabilities through the terrace system
- Damaged portions of the terrace walls, māno wai (water source) and ‘auwai (ditch)
- Damage areas deemed culturally significant by archaeologists identified as test pits and trenches in varying sizes
- Disrupted the spatial relationship of lo‘i and ‘auwai to streams in the ‘ili
- Damaged portions of the ahupua‘a walls
- Abandonment of the lo‘i kalo
- Interrupted the arrangement and pattern of terraces in relation to the stream, ‘auwai, and lowland flats
- Increased trash from the highway
- Impacted short distance views from within Luluku due to the bifurcation (division) of the project site, and blocked views toward Kāne‘ohe town and Kāne‘ohe Bay
- Destroyed symbols of Hawaiian history and culture
- Bifurcation of the project site and separation of archaeological sites
- Allowed drainage from the freeway decks to ground below
- Caused removal of burial features

### **3.5.2 Recommendations**

- Provide access to Luluku site, must implement/enforce visitation to these areas – issue of legal access to site
- Install access road and programming (15 spaces) at entry point to accommodate access to the site
- Implement managed access and security (partially through agreement with Programs and Recreation, Ho‘omaluhia Botanical Garden)
- Restore stream (environment, water flow, vegetation) to pre Luluku tunnel levels
- Restore the Luluku lo‘i system and provide public access to the Luluku agricultural complex
- Build a cultural resources complex that include a visitor center, education facilities, public gathering area, and maintenance facilities
- Develop interpretive materials for orientation, education, cultural, and natural themes
- Vegetation – implement a restoration and maintenance program



## 4. STRATEGIC ACTION PLAN



### 4.1 Vision

*Restore Luluku to a vibrant, living cultural landscape that uses regenerative agriculture and traditional cultural practices to foster an environment of healing and nourishment for stewards and visitors alike.*

### 4.2 Goals

- > Ensure obligations under the NHPA as set forth in the 1987 MOA are fulfilled
- > Advance IDP actions and vision
- > Fulfill obligations of HLID as set forth in the CA
- > Support preservation actions required under Attachment A of the 1987 MOA

## 4.3 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 Luluku. The logic model for this project is as follows in Figure 8.

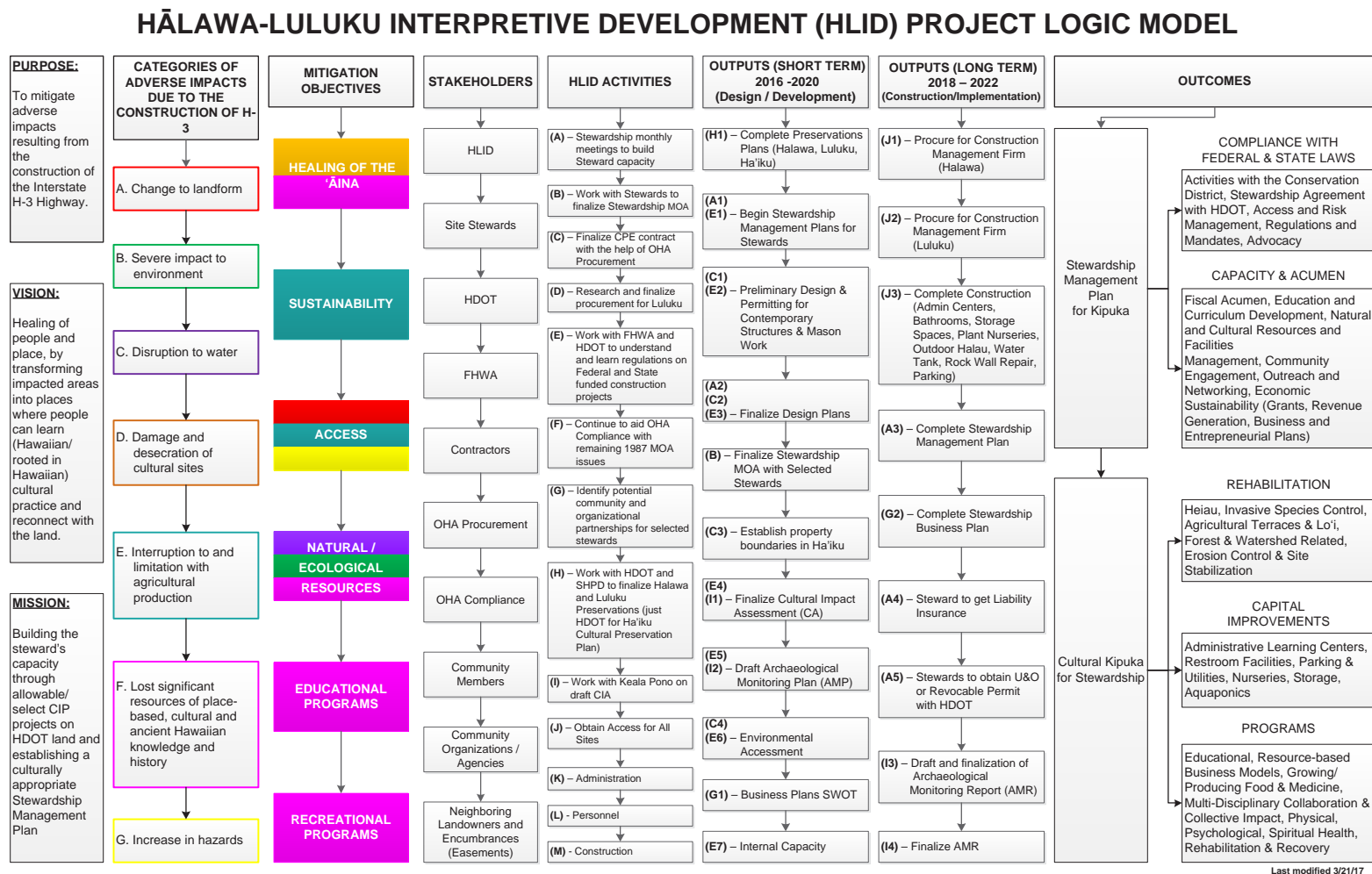


Figure 8: HLID Project Logic Model



## 4.4 Luluku Mitigation Objectives

The purpose of the mitigation objectives is to guide the development of the SMP for project sites in Luluku Agricultural Terraces. Paired with the landowner (HDOT) requirements, the mitigation objectives will serve as the guidelines Stewards will utilize to address the adverse impacts identified in the 2008 IDP and consequent work conducted by the Stewards within the specified project areas (Hālawā-Luluku Interpretive Development Project, 2008).

The Mitigation Objectives are:

1. “Healing of the ‘Āina “ – Implement actions to:
  - a. Stabilize the site to prevent erosion;
  - b. Implement preservation plans to protect existing resources, and
  - c. Communicate the significance of the cultural landscape and features of modern activities through an interpretive program that describe the impacts to the ‘āina.
2. Sustainability
  - a. Establish sustainable practices within the area that demonstrates how the host culture cared for the land.
3. Access
  - a. Develop facilities and implement programs that provide access into the terraces and mauka stream system for individuals’ (groups”) to pursue knowledge and cultural practices.
4. Natural/Ecological Resources
  - a. Implement actions that promote ecological balance of the environment and perpetuate both the knowledge and practices of Native Hawaiian culture.
5. Educational Program
  - a. 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



## 4.5 Luluku Program Area Boundaries and General Provisions

### 4.5.1 Program Area Boundaries

The ‘ili of Luluku, in the ahupua‘a of Kāne‘ohe, district of Ko‘olaupoko, on the island of O‘ahu is where these numerous agricultural terraces are located. These lo‘i kalo (irrigated taro terraces) were part of a large complex of agricultural terraces that were initially divided by the construction of the Likelike Highway. The portions of the terraces, which are the focus of this plan, were further impacted by the construction of the Interstate H-3 and are now located within the Kāne‘ohe Interchange. The site is located at the base of the Ko‘olau Mountain Range and is at an elevation ranging between 62 feet to 716 feet. The site is currently inaccessible by the public.

### 4.5.2 General Provisions

In order to facilitate the issuance of a revocable permit by HDOT, LFA-AHLC has developed the included ISMPP which expands upon the general provisions regarding the maintenance of the project area and programs below.

#### 4.5.2.1 Program Hours

Programs are typically run during normal work hours:

Monday – Friday 9:00 a.m. – 4:00 p.m. (these operating hours correspond to the Ho‘omaluhia Botanical Garden’s operating hours, which run daily from 9:00 a.m. – 4:00 p.m.)

Program activities can also be run on holidays and weekends with prior coordination with Ho‘omaluhia Botanical Garden.

No programs take place on Christmas Day (December 25) or New Year’s Day (January 1), which aligned with the two days of the year the garden is closed.

#### 4.5.2.2 Personnel

All personnel shall be employed by LFA-AHLC or ‘Āina Momona. All personnel shall have all necessary and appropriate qualifications and insurances needed to work with youth and the community.

A preference shall be for kānaka (people) or kama‘āina (native-born people) with cultural ties to Luluku, Kāne‘ohe, or Ko‘olaupoko.

Personnel are responsible for keeping the area and participants secure. Only personnel shall be given access to restricted areas or property keys.

Personnel shall be provided a copy of this plan so they may have a copy of the organization’s security procures.

#### 4.5.2.3 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.



## Publication and Liability Release Form

I, \_\_\_\_\_, for myself and for my respective heirs, executors, administrators and assigns, do hereby give full right and permission to use my likeness, photograph(s), voice, testimonials or other statements recorded or unrecorded, and/or name, and to grant permission to others to use my likeness, photograph(s), voice, testimonials or other statements recorded or unrecorded, and/or name, and do hereby release, acquit and forever discharge Aloha ‘Āina Health Center, Inc., a Hawaii non-profit corporation doing business as Luluku Farmers’ Association and/or Aloha ‘Āina Health and Learning Center and the State of Hawaii, its subsidiaries, affiliates, officers, employees, agents, representatives, successors and assigns, and anyone receiving permission from the aforesaid (Aloha ‘Āina Health Center and/or State of Hawaii), from any and all claims, actions, causes of action and liabilities, of whatsoever kind or nature, arising out of any use of my likeness, photograph(s), voice, testimonials or other statements recorded or unrecorded, and/or name, for advertising, publicity, trade or any other lawful purpose, in any medium now known or hereafter to be developed. I hereby waive any right I may have to inspect and approve the finished product, or such written or spoken copy that may be used in connection therewith, or the use to which it may be applied.

I voluntarily assume any and all risks, known or unknown, associated with my participation in Luluku Stewardship Project, herewith known as “Project,” and actions and undertakings in connection with the Project and the Footage (collectively “my Participation”). I acknowledge that my Participation may present certain risks to me, and I hereby assume any and all risks associated therewith, including, without limitation, the risk of physical or mental or emotional injury, minor and/or severe bodily harm, and/or illness, which arise by any means, including, without limitation: acts, omissions, recommendations or advice given by Aloha ‘Āina Health Center and/or the State of Hawaii, or its agents, employees, or other persons or entities affiliated with the Project; participation in inherently dangerous activities, latent or apparent defects or conditions in any equipment used in the Project; weather or other natural conditions; human error; my physical and mental condition; my own acts or omissions; first-aid, emergency treatment or other services rendered to me or others. Notwithstanding the foregoing, I hereby agree to voluntarily accept and assume any and all such risks as well as any risks not mentioned herein that are in any way associated with my Participation and the subsequent or simultaneous exhibition or other dissemination of the Footage, the Results and Proceeds and/or any portion thereof in perpetuity throughout the universe in any and all media, whether now known or hereafter invented (“Exhibition”).

I and the other Releasing Parties hereby voluntarily and knowingly, release, discharge and relinquish any and all claims, actions and lawsuits of any kind against the Released Parties related to or arising from my Participation, including, without limitation, travel to and from any location used in connection with the Project, the making, recording, production, use, editing, distribution, licensing, promoting, and/or Exhibition of the Footage, the Results and Proceeds and/or any portion thereof, including, without limitation, any claims, actions or lawsuits for wrongful death, negligence and/or other fault, either active or passive, personal injury, wrongful death, defamation, false light, violation of right of publicity, invasion of privacy, disclosure of embarrassing private facts, fraud, breach of contract, infringement of copyright, and negligent or intentional infliction of emotional distress.

Name (printed or typed): \_\_\_\_\_

Address: \_\_\_\_\_ Telephone No.: \_\_\_\_\_

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

\*\*\*\*\*

If the Releasing Party is under eighteen (18) years of age, the parent(s) or legal guardian(s) of the Releasing Party should sign below.

I am the parent or legal guardian of \_\_\_\_\_ and do hereby consent and grant my permission to all of the foregoing.

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

Telephone No.: \_\_\_\_\_

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

Telephone No.: \_\_\_\_\_

## 4.6 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 SMP, and to move towards achieving the IDP Vision developed and agreed to by all parties and partners of the HLID Project.

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

### 4.6.1 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 Hawaii and/or Center for Disease Control as appropriate to ensure the safety of all participants or individuals who enter the property.

#### 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.

### 4.6.2 Heal the ‘Āina

This section directly addresses the first and fourth Luluku Mitigation Objectives (Healing of the ‘Āina & Natural Ecological Resources) as outlined in section 4.4



#### **4.6.2.1 Stabilize the site to prevent erosion**

In addition to the impact from the archaeological excavation, the Luluku Cultural Landscape has been severely impacted by increased storm events and the proliferation of invasive species. Collectively, these impacts have critically 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 through their O‘ahu District and Maintenance Branch:

- Removal of invasive species from the area, including removal of vegetation that has grown in the historic sites and destabilized the sites and its features;
- Ongoing maintenance of vegetation, as required per the MOA and the passive preservation required of FHWA and HDOT of the historic cultural landscape;
- Enhanced management of Luluku Stream, including stabilization of the stream banks and restoration of historic sites associated with the stream;
- Engineering an appropriate water management solution to address increased storm activity;
- Closing of the archaeological trenches;
- Restoration of the archaeological terraces.

#### **4.6.2.2 Implement Preservation Plan**

HDOT will procure the completion of the preservation plan. LFA-AHLC will work with the contracted entity to develop and implement a plan that works to restore, preserve and maintain the resources in the cultural landscape. The following subsections will be updated to reflect recommendations set forth by the Preservation Plan once completed.

##### **4.6.2.2.1 Restore, Maintain and Preserve Site 1887**

The Loop Area is associated with two separate HDOT Parcels: 1) Parcel 14 (approximately 8 acres); and 2) Parcel 15 – part of TMK (1)4-5-041:003 (approximately 2 acres). The Loop Area is encapsulated by the Likelike Highway off-ramp (Ramp B) extending from the Interstate H-3. The area of the Loop Area enclosed by the Likelike off-ramp is approximately 10 acres. The actual HLID Project Area boundary for the Loop Area is encapsulated within a fence which follows the border of the off-ramp loop closely. The actual area may be slightly less than 10 acres. The Loop Area contains many cultural and archaeological sites associated with the area including agricultural terraces and retention walls, burials, and other sites with cultural significance. Luluku Stream, which served as an irrigation source in pre-Contact times, cuts through the archaeological sites. Because of its location and surroundings, this portion of land is difficult to access, but contains the most significant natural and cultural resources of the Luluku project area. Although restricted to the general public, permitted access is currently made possible via a dirt road and trail extending from Ho‘omaluhia Botanical Program and Parcel 20. The Northeast boundary of Parcel 20 is bordered by an existing guardrail and an old bypass road.

##### **4.6.2.2.2 Restore, Maintain and Preserve Parcel 20**

The second piece of land, totaling 10.87 acres, is referred to as HDOT Parcel 20 and has been included as part of the Highway Right of Way and no longer has a TMK designation. Parcel 20 can be accessed via Ho‘omaluhia Program Access Road. A gate to the Ho‘omaluhia Botanical Garden is open to the public daily between 9:00 am and 4:00 pm. The botanical garden should be consulted for exact times and days. A series of trails and dirt roads extend through the Parcel 20; some of which connect

to Parcels 14 and 15. Not all of these trails are currently mapped. Parcel 20 is bordered by the Interstate H-3 to the west and by a residential area to the northeast. The remainder of Parcel 20 neighbors Ho‘omaluhia Botanical Garden.

#### **4.6.2.2.3 Close Trenches**

The Stewards will work in collaboration with HDOT to close the trenches created by BPBM during archaeological research conducted in association with the H-3 construction. Stewards will check with Hawaii Occupational Safety and Health Law (HIOSH) and HDOT for any safety protocols that need to be in place prior to commencing with this work. HIOSH will be informed by HDOT when these trenches are closed.

#### **4.6.2.3 Create an Interpretive Program That Describes H-3 Impacts to the ‘Āina**

LFA-AHLC will develop community curriculum that communicates the significance of the Luluku cultural landscape that features modern activities through an interpretive program that describes the impacts the project had to the ‘āina. This will 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.

LFA-AHLC actively works with communities and families to educate groups about the importance of caring for ‘āina from a holistic and landscape approach.

### **4.6.3 Sustain**

This section directly addresses the second Luluku Mitigation Objective (Sustainability) as outlined in section 4.4. As previously noted, the project area lies within Vegetation Zone D-1 as delineated by Ripperton and Hosaka’s 1942 Bulletin (Ripperton, 1942). This area is characterized by low shrubs, large stands of introduced guava, occasional ‘ōhi‘a lehua, hala, kukui, and various ferns and grasses. A majority 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 Parcel 20 and the Loop Area. Specifically, LFA-AHLC is focused on managing invasive species so native food crops can be regularly harvested in Parcel 20 as part of the organization’s education program.



In the Loop Area, LFA-AHLC will work with staff and partners to remove the invasive species that threaten the historic sites and resources. Once the invasive species are under control and the historic sites restored, LFA-AHLC will work to restore lo'i kalo in the Loop Area.

#### **4.6.3.1 Establish Sustainable Practices**

LFA-AHLC will establish sustainable practices within the area that demonstrates how the host culture cared for the land.

##### **4.6.3.1.1 Removal of Invasive Vegetation**

LFA-AHLC will work with HDOT to remove invasive vegetation in both Parcel 20 and the Loop Area.

##### **4.6.3.1.2 Mulching**

Mulch will be produced onsite from invasive woody plants when possible; additional mulch materials will be purchased as needed. Exposed soils will be covered with approximately 2" of wood chips; a ring of organic material roughly with a diameter of 2.5" with a 2-4" thickness will be mulched around new plantings.

Much of the property is highly sloped. Weed matting will be selectively installed on slopes that are not conducive for conventional mulching. Weed matting will protect vulnerable disturbed soils from erosion, reduce mulch reapplication costs and suppress the re-establishment of woody and herbaceous invasive species. Weed matting will also kill seedbanks stored in the soil.

##### **4.6.3.1.3 Nutrient Management**

Soils will be tested for deficiencies; amendments will be applied accordingly. Matured manure, compost or suitable pelletized fertilizers will be used as needed. Since over-fertilization can leave native plants susceptible to disease, special care will be taken when applying fertilizers around these plantings. Fertilizers and other non-organic amendments will be applied, stored and disposed of in accordance with label instructions.

##### **4.6.3.1.4 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. Initial spraying will commence approximately two months prior to planting; secondary spraying will occur one month after initial treatment as needed to control regrowth from coppiced plants. Treated trees will be observed for their levels of defoliation and logged for future reference on herbicide effectiveness.

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 over story. Any use of chemical methods will be done with HDOT with cultural monitors.

##### **4.6.3.1.5 Monitoring**



The site shall be regularly monitored by LFA-AHLC. No activity shall take place within the site without prior notice to LFA-AHLC and without staff 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.

Sites will be monitored on a weekly basis until plantings are established to ensure they are adequately irrigated and free of pests, disease and weed incursion. Weeds will be removed to ensure that plants are not outcompeted; approved systemic insecticides/fungicides will be applied as needed.

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 impact of pigs and other invasive species will be monitored and reported to HDOT as needed.

Plantings will be monitored on a weekly basis until fully established and at least bi-monthly thereafter. Hand watering will be used as needed to aid native plant establishment. Weed growth will be removed manually, mulched or sprayed as appropriate.

Plant foliage will be examined for pests, fungus and disease symptoms; infected limbs, leaves and plants will be removed. Twig borer traps may be used if the population is preventative measure as needed. Trails will be maintained to ensure access and the fence line will be monitored to detect and repair breaches as necessary.

#### **4.6.3.1.6 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 LFA-AHLC. Stewards should record fence damage or suspected trespassing to HDOT when encountered.

#### **4.6.4 Access and Practice**

This section directly addresses the third and fifth Luluku Mitigation Objectives (Access & Educational Program) as outlined in section 4.4

##### **4.6.4.1 Develop Facilities to Enhance Access**

The Stewards will work to develop facilities and implement programs that provide access into the terraces and mauka stream system for individuals' (groups') to pursue knowledge and cultural practices.

###### **4.6.4.1.1 Implement Feasibility Study**

HLID, with approval from both HDOT and FHWA, procured Community Planning & Engineering, Inc. (CPE) to complete the "Hālawa-Luluku Development Feasibility Report" (See Appendix F, Community Planning and Engineering, Inc., 2019).

The purpose of the Hālawa-Luluku 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 Hālawa Valley and Luluku project area. The objective of this report was to provide site layout alternatives based on discussions with the Stewards and coordination with representatives from the FHWA, HDOT, and OHA. The project elements presented in this report are based off the IDP for their respective project site, with input from FHWA, HDOT and 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. The cost estimates presented in this report are based on rough budgetary estimates and are subject to change.

###### **4.6.4.1.2 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.

###### **4.6.4.1.3 Design and Build Facilities for Program Use**

The Stewards are requesting resources to build capacity and support programming.

#### **Loop Area**

The following are photos and specifications for the type of facilities the Stewards would like to have in the project area to help improve the safety and build capacity of the programs.

Immediate Needs	Long-Range Goals
1-2 Portable Toilets	1-2 Portable Toilets
Securable Storage Unit for Hand-tools	Securable Storage Unit for Hand-tools
Maintenance of Access Road for Vehicle Access	Maintenance of Access Road for Vehicle Access
	Possible Compost Toilet
	Traditional Hālau

#### Parcel 20

Immediate Needs	Long-Range Goals
1-2 Portable Toilets	1-2 Portable Toilets
Securable Storage Unit for Hand-tools	Securable Storage Unit for Hand-tools
Mobile Trailer	Access Road for Vehicle Access
	Gravel Parking Lot (10-15 vehicles, maximum load 15 passenger van)
	Possible Compost Toilet
	Traditional Hālau
	Utilities (Sewer, Water, Electricity)
	Mobile Unit with Restroom
	Outdoor Sink
	Outdoor Shower
	Hālau / Gathering Space

#### Mobile Trailer

The Stewards would like a temporary mobile unit to place on the eastern portion of Parcel 20, a traditional agricultural accessory structure. This will be used as an accessory structure to the traditional farming operations being conducted on the TMK. The Stewards grow and harvest kalo on Lot A of TMK [1] 4-5-041:017. As previously discussed, Parcel 20 was originally Lot B of [1] 4-5-041:017, which were all in agricultural use

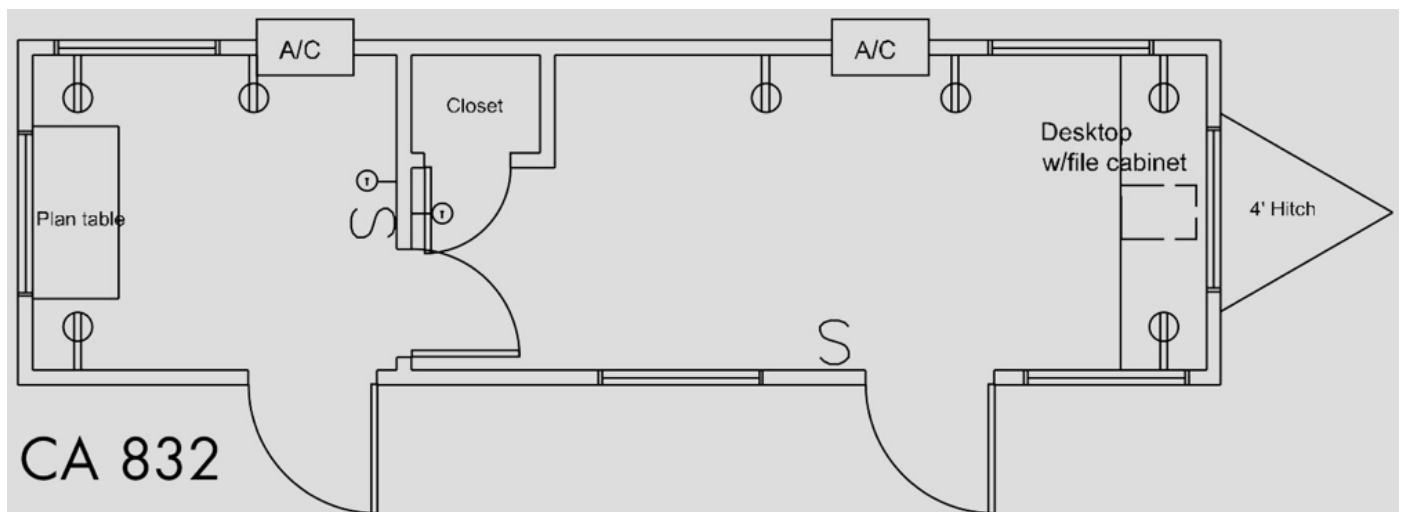


Illustration above is a general example of desired Mobile Trailer Floorplan. Actual Floorplan subject to change based on available options, cost, and manufacturer. Photo - <https://www.cassone.com/products/office-trailers>



Photo above is a general example of desired Mobile Trailer. Actual trailer subject to change based on available options, cost, and manufacturer. Photo- <https://www.cassone.com/products/office-trailers>

prior to the disruption of these activities caused by the H-3 construction. While Parcel 20 is now included in the HDOT ROW and no longer has a TMK designation (10.87 acres), the mobile unit would nonetheless be an accessory structure to the traditional agricultural activities that continue on the property.

### *Utility (Outdoor) Sink*

The Stewards would like to install and use of an outdoor utility sink for the purpose of allowing program participants access to potable running water and to wash the kalo harvested from the land.



Photo is for illustrative purposes only. <https://www.stevewilliamskitchens.co.uk/stainless-steel-utility-sink-in-kitchen-design-ideas/stainless-steel-utility-sink-in-kitchen-commercial/>



## Outdoor Shower

A modest outdoor shower is needed to allow program participants to properly rinse off after working in the lo'i in Parcel 20. Currently, there is no such facility and students are often having to ride back to school covered in dirt or mud. The following image provides low-cost options that serve the function needed.

The shower should have both hot and cold water and should have two shower heads: one that allows for a full-body shower and a lower one where participants can rise off their feet. It can be a stand-alone shower or attached to a structure. Regardless, it should be an outdoor shower. Based on the availability of funds, modest walls should be considered to allow for privacy.

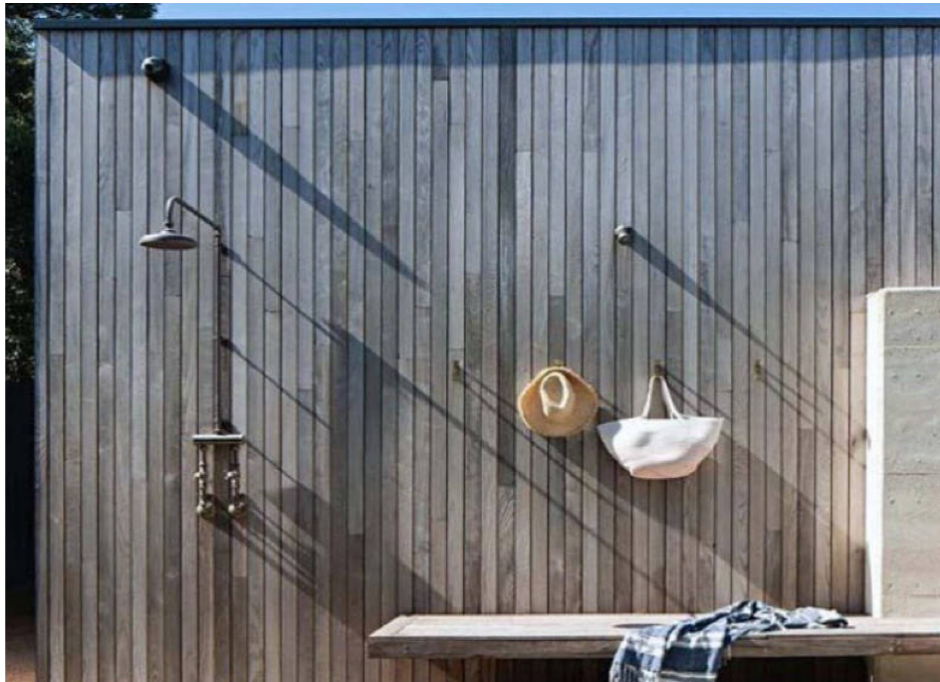


Photo of outdoor shower is for illustrative purposes only. Image: LaGuardia Design Group  
<https://freshome.com/inspiration/outdoor-shower-ideas/>

### 4.6.4.2 Programs to Enhance Cultural Practices

During the seventeen years LFA-AHLC farmed in Luluku, they have seen the potential of Luluku to transform the lives of broken families and incarcerated or at risk youth, while restoring the once thriving agricultural community of Kāneʻohe. The continuation of agriculture in Luluku is not only crucial for the future of Kāneʻohe but also for the surrounding communities within Koʻolaupoko. The organization is grateful for the opportunity to continue stewardship of Luluku in partnership with governmental agencies and the community.

#### 4.6.4.2.1 Cultural Heritage Capacity Building

LFA-AHLC will offer programming for both students and community members regarding the cultural practices that necessitate managing a wahi kapu (sacred place). Elements of this include:

- Understanding Hawaiian cultural heritage values
- Managing cultural heritage within the natural resource management system

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.

#### **4.6.4.2.2 Farming and Food Sovereignty**

Part of LFA-AHLC's primary mission is to restore and perpetuate traditional farming and food sovereignty practices in Luluku and other traditional land areas. LFA-AHLC will continue to lead the opening of lo'i and cultivation of kalo in the area and on the project area.

These activities shall be consistent with the traditional practices that took place in the project area prior to the construction of the H-3 project.

Community members and students will be engaged in traditional agricultural practices, harvesting traditional foods, and learning how to prepare traditional food in a manner that enhances traditional practices and physical well-being.

#### **4.6.4.2.3 Subsistence Practices**

LFA-AHLC shall encourage and facilitate subsistence practices, including the cultivation of traditional foods in the project area.

### **4.6.5 Natural/Ecological Resources**

This section directly addresses the fourth Luluku Mitigation Objective (Natural/Ecological Resources) as outlined in section 4.4

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





#### 4.6.5.1 Implement Actions That Promote Ecological Balance

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

Since our students come once a week, we diversify the activities and tasks they do so their skills grow across numerous subjects. Students are exposed to a variety of STEM focused activities, such as engineering ‘auwai (canal) systems, removing invasive species, and learning about traditional seed propagation and horticulture techniques.

Our students at LFA-AHLC are taught the ingenuity of indigenous Hawaiian food systems and get to participate in them in a hands-on way. Not only does this provide science and math-based learning, but also historical and social studies. We have different curriculums for different age groups and abilities, so that all participants can learn new and exciting things from the land and cultural site.

Students 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.

#### 4.6.6 Educate

This section directly addresses the fifth Luluku Mitigation Objective (Educational Program) as outlined in section 4.4

→ 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.



#### 4.6.6.1 Interpret the Historic and Cultural Resources Through Educational Programs

Currently, LFA-AHLC hosts weekly workdays with 4th, 5th, 6th, 7th, and 8th graders from Kāneʻohe Elementary School and King Middle School, teaching 60-100 children a week in traditional farming and healing practices. These students come to our site every Wednesday and stay the entire school day, learning and taking care of the land alongside their teachers and family members, who are always welcome and encouraged to join.

LFA-AHLC notably works closely with the Special Education classes at these schools, as part of our belief that the land plays an integral role in our physical, mental, and emotional well-being. Where traditional education systems often fail to give students with special needs the unique space, flexibility, and resources they need to learn, Aloha ʻĀina's outdoor, nature-based curriculums offer learning styles and spaces that allow these students to thrive. This style of learning is truly impactful and cannot be found in a traditional classroom setting.

##### 4.6.6.1.1 Educational Programs (Hoʻonaʻauao)

#### Hoʻonaʻauao: A Case Study in LFA-AHLC Educational Programs

In partnership with the Luluku Farmers' Association, a 501(c)(5) agricultural nonprofit organization representing the last remaining farmers in the ancient Luluku Agricultural Complex located adjacent to Hoʻomaluhia Botanical Gardens in the Ahupuaʻa of Kaneohe, Aloha ʻĀina continues to serve as a host site for Castle High School's Poʻokela Academy, KUPU, Ke Kama Pono, HYCF and other organizations and groups from 2012 to the present (updated March 2015).

Students from Castle High School participated in the 2015 Summer Work Study Course: "Geology-Archaeology-Agriculture Career Explorations," a collaborative project through Pacific American Foundation, Kulia Natural Resource Stewardship Program (grant: U.S. Department of Education, Native Hawaiian Program); Cultural Surveys Hawaiʻi (Hallet H. Hammatt, Ph.D. President); Luluku Farmers' Association; Aloha ʻĀina Agri-Cultural Health & Learning Center; Windward Community College, Geology Program; Hawaiʻi Department of Education: Castle High School (grant: 21 Century U.S. Department of Education).

##### Activities, Skills and Career Exposure:

###### Geo-Archaeology:

Hawaiian History & Cultural Studies  
Archaeology: GPS mapping, documenting  
Agronomy / Horticulture  
Sustainable farming  
Geology, rock structures and types  
Botany / Ethno-Botany, and Plant Ecology  
Student Symposium, Presentations

###### Hawaiian Agriculture technologies:

Design & build aquaculture and aquaponics laboratories, loʻi terraces  
Water quality testing and characteristics  
Water engineering streams, springs

#### 4.6.6.2 Contemporary History of the H-3 and the Project Area

The Stewards will develop curricula (programs and materials) that integrates the contemporary history of the H-3 and tells the story of struggles endured because of development in 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 agricultural use of the area and offer participants the opportunity to work in traditional lo'i
- Developing materials about the kūpuna who led the demonstrations to protect H-3

#### 4.6.7 Practice

This section directly addresses the third Luluku Mitigation Objective (Access) as outlined in section 4.4



##### 4.6.7.1 Programs to Enhance Cultural Practices

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.

LFA-AHLC will accomplish this through their programs that aim to pursue knowledge and enhance cultural practices among student and community groups.

##### 4.6.7.1.1 Mālama Hāloa

One of their primary programs is Mālama Hāloa (to care for Hāloa).

This is an “agri-culture kalo” food production program that teaches students and community members the important of traditional food production.



School partners and community partners will bring student and community groups to Parcel 20, approximately 1-2 per week. The program is currently run on the neighboring KLP land where numerous lo'i kalo have been restored by LFA-AHLC.

These groups come in either small buses or 15 passenger vans. Once the parking facility is built on Parcel 20, those vans will be able to enter Parcel 20 and park in the parking lot. The maximum vehicle size for Parcel 20 will be a 15-passenger van.

Buses will stop and unload groups from Park Access Road.

LFA-AHLC will work with groups to prepare the land, tend to the lo'i, plant kalo, care for the plants once planted, harvest (huki) kalo, process the raw corm and plants, and learn how to traditionally prepare pa'i'ai (a food made from kalo).

#### **4.6.7.1.2 Mālama Luluku**

The second program will take place in the Loop Area and will include restoration of the historic sites and features that were damaged by the H-3 construction and subsequent neglect of the property.

LFA-AHLC will work with community members and practitioners from the Ko'olaupoko District to:

1. Remove invasive species
2. Restore the cultural landscape
3. Restore, repair, and maintain the historic agricultural terraces

The Loop Area has become extremely overgrown. Numerous invasive species are found in the area and many are impacting the historic sites. LFA-AHLC will work closely with HDOT and their staff to begin restoration of the area.



## 4.7 Program Priorities

### 4.7.1 Priority One: Fall 1999 – Spring 2020

Item	Location	Responsible Party	Estimated Budget
Portable Toilet (1)	Loop, near H-3 access road	HDOT (HWY-D)	
Storage Unit	Loop, near H-3 access road	HDOT (HWY-D)	
Portable Toilet (2)	Parcel 20	HDOT (HWY-D)	
Storage Unit	Parcel 20	HDOT (HWY-D)	
Clear Vegetation for Trench Remediation	Loop	HDOT (HWY-O)	
Cultural Monitoring for Vegetation Clearing	Loop	AHLC	\$1,500.00
Remediate Trenches	Loop	HDOT (HWY-D)	\$250,000.00
Maintenance of Vegetation at Site -1887	Loop	HDOT (HWY-O)	
Repair of Culvert	Below H-3 road	HDOT (HWY-O)	--
Complete SMP	Luluku Project Area	AHLC and HLID	\$0
Complete SAP	Luluku Project Area	AHLC and HLID	\$0
Complete Graphic Master Plan	Luluku Project Area	HLID	\$0
Topography Survey	Loop	HLID	\$45,000.00
Complete Feasibility Study	Parcel 20	HLID	\$300,000.00
Obtain Revocable Permit from HDOT	Luluku Project Area	AHLC and HDOT (HWY-O)	\$0
Liability Insurance	Luluku Project Area	AHLC	\$2,000.00

The immediate needs of the sites are portable toilets to facilitate a safe working environment. Additionally, LFA-AHLC is requesting storage facilities that can be secured to hold hand-tools for the restoration and education programs taking place in the project area. No additional temporary structures are anticipated before Spring 2020.

HDOT HWY-O is in the process of clearing vegetation from the Loop Area and clearing debris and rocks from Luluku Stream beneath the H-3. Erosion and storm events have caused a number of rocks to collect in that area and it now poses a flooding hazard. Additionally, the increased storm events have significantly impacted features within the historic district. Therefore, LFA-AHLC has requested that this material be preserved and maintained on site as much as feasibly possible for potential use when a preservation plan has been prepared and approved.

In order for additional restoration work to take place, a current topographic survey needs to be conducted. LFA-AHLC has requested that HLID procure that study. HDOT and HLID have coordinated to have CPE complete that work.

The culvert below the H-3 access road is also in need of maintenance. HDOT HWY-O is in the process of actioning that effort.

#### 4.7.2 Priority Two: Spring 2020 – Fall 2020

Item	Location	Responsible Party	Estimated Budget
Design Facilities	Luluku Project Area	HLID	\$2.5 Million
Procurement of Design / Build	Luluku Project Area	HLID	
Permitting	Luluku Project Area	HLID, HDOT, and AHLC	
Design Stream Remediation	Luluku Stream	HDOT (HWY-O)	--
Historic Site Condition Assessment	Luluku Project Area	HDOT (HWY-D)	--
Preservation Plan	Luluku Project Area	HDOT (HWY-D)	--
Ongoing Vegetation Maintenance	Luluku Project Area	HDOT (HWY-C)	--
Clear Junkyard	Loop	HDOT (HWY-O)	--

The second set of priorities include procuring the design-build contract to complete the final design, permitting, and building of the facilities on Parcel 20 as described in the SAP and Graphic Master Plan. The following costs are estimates for the final implementation of the IDP. They are listed in order of importance:

- Design utilities, gravel road, parking lot, and grading - \$100,000
- Permitting for construction activities - \$25,000
- Install utility lines from Park Access Road (city) to Parcel 20 (state) - \$800,000
- Grade road and parking lot - \$150,000
- Install gravel road and parking lot - \$150,000
- Grade land for accessory structure and portable toilets - \$100,000
- Mobile trailer - \$50,000
- Portable toilets (five years) - \$100,000
- Storage Unit - \$25,000
- Install outdoor shower - \$50,000
- Install outdoor sink - \$25,000
- Install gate to road and parking lot - \$50,000
- Landscape vegetative shield - \$50,000
- Outdoor, covered pavilion area adjacent to mobile unit - \$200,000
- Design and build compost toilets (2) - \$200,000



### 4.7.3 Priority Three: Fall 2020 – Fall 2021

Item	Location	Responsible Party	Estimated Budget
Build Facilities (including parking lot, compost toilets (2), securable hālau with sink / outdoor shower, mobile trailer with electricity)	Parcel 20	HLID	\$2.5 million (carried over from design / build contract)
Build Stream Remediation	Luluku Stream	HDOT (HWY-O)	--
Restoration of Historic Sites	Luluku Project Area	HDOT (HWY-D)	--
Implementation of Preservation Plan	Luluku Project Area	HDOT (HWY-D)	--
Ongoing Vegetation Maintenance	Luluku Project Area	HDOT (HWY-C)	--
Open / Restore Lo'i	Parcel 20	LFA-AHLC	\$5,000

As current programming expands, LFA-AHLC will require facilities to support their operations (to be located in Parcel 20), at which time lo'i located Parcel 20 are intended to be opened and restored to a functioning state.

Simultaneously in the Loop parcel, plans for remediating Luluku Stream and restoration of the archaeological features are intended to be implemented. This, along with ongoing vegetation maintenance will serve to implement the Preservation Plan.

## 5. GRAPHIC MASTER PLAN, FEDERAL REGULATIONS, AND PERMITTING REQUIREMENTS

### 5.1 Intro

The built environment includes both facilities and actions on the property that will physically alter the site in some way. These are reflected in the priorities listed in the three Priority tables outlined in section 4.7. Actions and facilities that both HDOT and LFA-AHLC will be responsible for are illustrated in Figure 9 below; and for the duration of the HLID project, actions and facilities that HLID will be responsible for are also indicated. Depending on the implementation of any proposed development (actions or facilities) certain Federal regulations may apply. Furthermore, a variety of permits may be required prior to the commencement of any construction/alteration activities. The following section provides information regarding these items.

### 5.2 Facilities, Infrastructure, and Access

Facilities such as the portable toilet and storage unit articulated in the Loop Area will be to support the immediate Trench Remediation work set to begin early 2020. Eventually, as the active preservation of the historic features begins, these facilities will then support these activities. Once this work is completed, the facilities are intended to either move to Parcel 20 or be removed.

The (2) portable toilets and storage unit lower in Parcel 20 are to support the current stewardship programming. As the programming expands, these facilities will eventually be replaced with semi-permanent facilities to include a parking lot, (2) compost toilets, a securable hālau with a sink and outdoor shower, and a mobile office trailer with electricity.

To provide infrastructure for the semi-permanent facilities, the implementation phase of the HLID project will focus on installation of the utility connection to include sewer, water and electricity. A feasibility study was done by CPE (See Appendix F), 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 utility installation. CPE will provide the design and permitting for the utilities connection installation.

With regard to accessways, traversing between Parcel 20 and the Loop Area poses a significant and regular challenge for the Stewards. Various options are being proposed with consideration for the limitations of each. The trails currently utilized by the Stewards are only accessible by foot traffic. As the work load in the Loop Area increases, this will become increasingly more inefficient. Fortifying it to be accessible for elderly that traverse the site or for vehicles carrying equipment to the site would be very costly. The dirt road that leads from Parcel 20 onto the adjacent property to the south has previously been used by HECO to service the conductor towers that run through Luluku valley. An agreement with KLP would be required for this as an accessway and is not necessarily preferable. Another proposed alternative is a road on Ho'omaluhia Botanical Gardens property that has previously been used by HLID with permission from the Gardens to access the Loop Area. An easement agreement with the Gardens would be required for this option as well.

# 5.3 Agricultural Plan

As mentioned in section 4.6 regarding program activities, a significant part of LFA-AHLC programming will be centered on agriculture. While certain agricultural spaces are already functioning, the intention is to eventually expand these activities by restoring the agricultural terraces and activating a comprehensive lo'i system that extends from the Loop Area, down into Parcel 20, and into adjacent KLP properties.

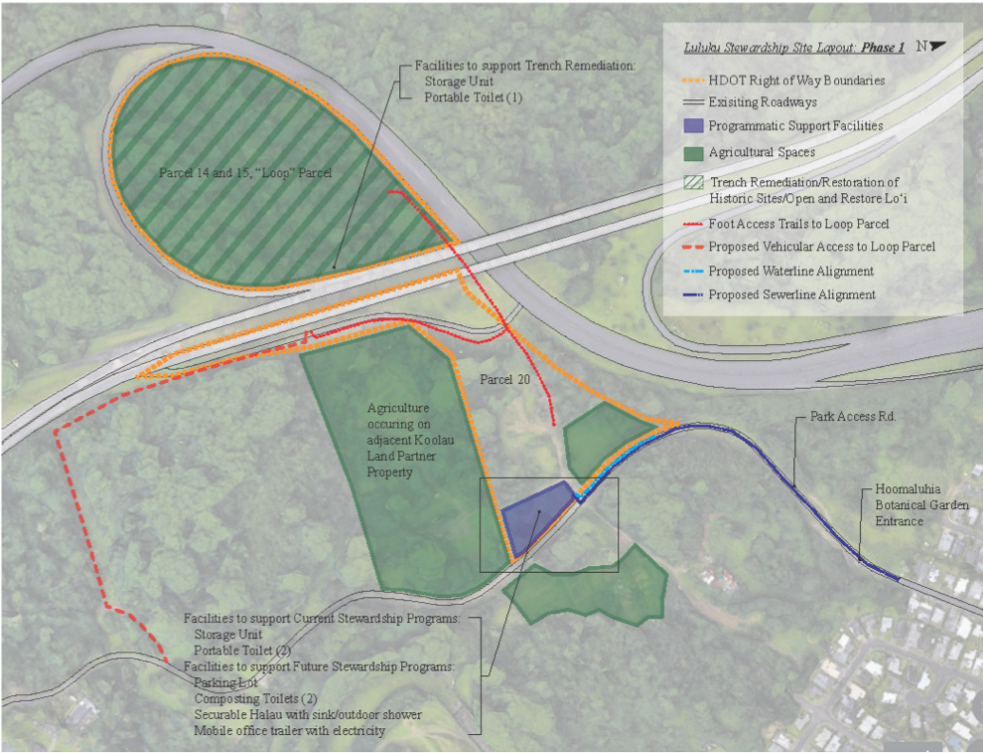


Figure 9: Luluku Graphic Master Plan for the Built Environment

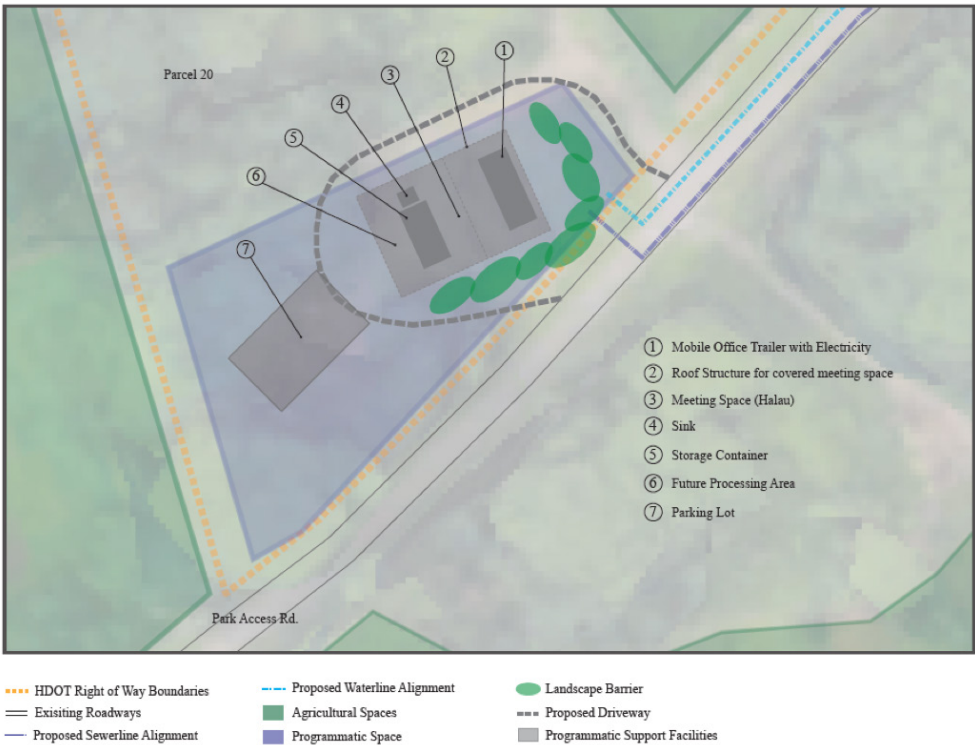


Figure 10: Conceptual Layout for Support Facilities, Parcel 20

## 5.4 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.

## 5.5 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 of 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 activities.

### 5.5.1 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 interstate 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.”

#### **5.5.1.1 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.

#### **5.5.1.2 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.

### **5.5.2 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.



### **5.5.2.1 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.

#### **5.5.2.1.1 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.

### **5.5.3 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.

#### **5.5.3.1 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.

### **5.5.4 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.

### **5.5.5 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.

#### **5.5.5.1 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.

### **5.5.6 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.

#### **5.5.6.1 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.

## 5.5.7 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.

### 5.5.7.1 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 (NRHP) 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, materi-

als, 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.

### **5.5.8 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.

## **5.6 State and County Permits and Authorizations**

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

### **5.6.1 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.

### **5.6.2 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 Hawaii] 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.”

#### **5.6.2.1 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.

#### **5.6.2.2 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 Hawaii. 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.

### **5.6.3 State of Hawaii, Department of Health, Wastewater Branch**

#### **5.6.3.1 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.”

#### **5.6.3.2 Individual Wastewater System Permit**

A DOH 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.

### **5.6.4 Department of Health, Sanitation Branch**

#### **5.6.4.1 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.

### **5.6.5 State of Hawai'i, 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.

#### **5.6.5.1 Conservation District Use Permit**

The Luluku Project Area is also situated within a state conservation district. More specifically, the Luluku Project Area is part of a preservation zone under the subzone category known as the "General Sub-zone". This sub-zone category is the least restrictive category within the conservation district or preservation zones. Nonetheless, this zoning limits some program activities.

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.

The proposed temporary facilities prioritized herein are considered accessory structures under OCCL's rules. Only a site plan needs to be prepared and approved by the Department. The information contained in this plan should be sufficient for those needs. OCCL should be consulted during the planning process.

### **5.6.6 State of Hawai'i, 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.

### **5.6.7 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.

### **5.6.8 State of Hawai‘i, Department of Land and Natural Resources, Commission on Water Resource Management**

Activities that involve the use of water as a trust resource need review and possible approval by the Commission on Water Resource Management (CWRM).

#### **5.6.8.1 Stream Channel Alteration Permit**

A Stream Alteration Permit is required for any temporary or permanent activity within the stream bed or banks that may obstruct, diminish, destroy, modify, or relocate a stream channel; change the direction of flow of water in a stream channel; place any materials or structures in a stream channel; or remove any material or structure from a stream channel.

#### **5.6.8.2 Stream Diversion Works Permit**

A Stream Diversion Works Permit is required for the removal of water from a stream into a channel, ditch, tunnel, pipeline, or other conduit for off-stream purposes including agricultural uses.

### **5.6.9 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 HRS, §103-50; approve site-specific designs where an alternate design provides equal or greater access.

#### **5.6.9.1 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.

### **5.6.10 State of Hawai‘i, Office of Environmental Quality Control**

#### **5.6.10.1 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.

For the projects and facilities prioritized by LFA-AHLC, 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.

## **5.6.11 State of Hawai‘i, Department of Transportation, Highways**

### **5.6.11.1 Revocable Permit**

HDOT will issue LFA-AHLC two (2) separate revocable permits for its activities within 1) Loop Area (Parcels 14 (portion) and 15); and 2) Parcel 20. 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. Both permits 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:

#### **5.6.11.1.1 Premises**

Portion Parcel 14 (approximately 8 acres), Parcel 15 – part of TMK [1] 4-5-041:003 (approximately 2 acres), Parcel 20 – originally a subdivision (Lot B) of TMK [1] 4-5-041:017 but is now included in the HDOT ROW and no longer has a TMK designation (10.87 acres).

#### **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**

LFA-AHLC shall not pay rent for use of the property.

#### **5.6.11.1.4 Security Deposit**

LFA-AHLC shall not provide a security deposit.

#### **5.6.11.1.5 Method of Payment**

LFA-AHLC 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 sewer, water, and electricity utilities as described in section 5.2 of the SMP.

#### **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 LFA-AHLC.

#### **5.6.11.1.7 Utilities and Other Charges**

LFA-AHLC shall be responsible for and pay all set-up and all recurring charges for water, sewer, electricity, telephone, other utilities if desired, garbage and trash disposal. HLID will be responsible for the design, permitting, and installation cost of the sewer, water, and electricity utilities as described in section 5.2 of the SMP.

#### **5.6.11.1.8 Repairs**

LFA-AHLC 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. LFA-AHLC 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. LFA-AHLC 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 LFA-AHLC 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 LFA-AHLC 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 com-



pensate 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 LFA-AHLC 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 LFA-AHLC to make a good faith and reasonable effort to cure any non-monetary default for a period of no less than twelve (12) months after written notice from HDOT to LFA-AHLC 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**

LFA-AHLC 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.,

LFA-AHLC shall be responsible for compliance with environmental laws associated with its education and farming activities as described in the SMP.

### **5.6.11.2 Land 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.

### **5.6.11.3 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.

## 5.7 City and County of Honolulu Permitting

### 5.7.1 Department of Planning and Permitting

#### 5.7.1.1 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.

#### 5.7.1.2 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.

#### 5.7.1.3 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.

#### 5.7.1.4 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.

#### 5.7.1.5 Sewer Connection Permit

A Sewer Connection Application is required for projects that will increase sewage flow to the municipal sewer system. This includes new sewer connections from un-sewered lots and new commercial buildings.

DOH also requires a rejected City and County of Honolulu sewer connection application before their review of Individual Wastewater System permits.

#### 5.7.1.6 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 will 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. The project sites would likely be classified under a category 3 or 4. For project in those categories, construction drawings with a Best Management Practices site plan, Best Management Practices design details, and other drawings must be included.

The projects sites would also be considered a priority B1 or B2 under the City's Water Quality Rules. Priority B1 projects are any new development that results in 5,000 square feet or more impervious area and/or parking lots with 20 stalls or more. Priority B2 projects are new developments that results in 500

to 5,000 square feet of impervious area. The design requirements for Priority B1 projects are stricter than Priority B2 projects. The runoff for Priority B1 projects must be kept on-site as much as possible and the runoff not retained on-site must be treated. This can be done by installing infiltration basins, permeable pavement, vegetative swales, bioretention, etc. A Storm Water Quality Report must also be prepared by a Certified Water Pollution Plan Preparer and be approved by the DPP Director. Priority B2 projects, on the other hand, are not required to retain the runoff on-site. Also, the project would only need to a Storm Water Quality Checklist prepared by a Certified Water Pollution Plan Preparer to be approved by the DPP Director. An Operations Manual Plan would have to be prepared detailing how the Best Management Practices measures will be maintained.

#### **5.7.1.7 Trenching Permit**

If there is trenching of any public street, sidewalk, or thoroughfare, a trenching permit will be required. Trenching may be required for sewer or water connections. An Erosion and Sediment Control Plan would be needed with the trenching permit. Clearances from other City departments and utility companies having underground installations would have to be obtained. Bond and insurance are also required.

### **5.7.2 Department of Transportation Services**

#### **5.7.2.1 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.

### **5.7.3 Honolulu Fire Department**

#### **5.7.3.1 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. INTERIM 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, culverts, the H-3, and stream activities.

##### 6.1.1.1 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 LFA-AHLC. LFA-AHLC shall be reasonably compensated for this service.

LFA-AHLC shall be responsible for the maintenance of vegetation outside areas where historic sites are located.

##### 6.1.1.2 Preservation of Historic Sites

Section 3 of "Attachment A: Archaeological Mitigation Plan, Kāne'ohe Interchange, Interstate H-3 Highway, O'ahu" of the 1987 MOA is a "Preservation Plan." The MOA assigns the responsibility of ensuring that the measures are carried out to FHWA in consultation with HDOT, SHPO, OHA, and the ACHP ("Memorandum of Agreement", 1987).

It separates the preservation of the historic sites in the Kāne'ohe Interchange project area into two types:

- 1/ "Passive" preservation maintains selected areas as scientific preserves, or data banks, to be safeguarded against unnecessary developmental impacts and kept in their current condition for possible future research. "Passively" preserved areas should generally be left under the current vegetation cover, with the possible exception of sites or features that may be destroyed by invasive vegetation; vegetation in those areas should be cleared. Most vegetation cover – including mango, guava, and other tree and ground cover should be allowed to remain; and protective ground cover may be planted if necessary, to prevent further erosion. Professionally-supervised inspections of these sites are recommended at 2-3 year intervals, with maintenance or modifications as found necessary during inspections.
- 2/ "Active" preservation (with possible future restoration) will maintain especially significant areas as parts of an interpretative display accessible to the community for educational purposes. "Active" preservation will involve extensive clearing of vegetation; repair of damaged features (which may be numerous in the areas currently covered with hau); stabilization; the replanting (at Site G5-85) of certain terraces in Hawaiian taro; construction of trails, arrangement for interpretative displays and tours; and maintenance of both those terraces planted in taro and those additional areas to be visited by the public.

It is unclear how or if FHWA's responsibilities identified above were delegated to HDOT or another party.

#### **6.1.1.2.1 Passive Preservation of Historic Sites**

FHWA shall remain responsible for the passive preservation of the historic sites as specified in the 1987 MOA.

#### **6.1.1.2.2 Active Preservation of Historic Sites**

FHWA shall remain responsible for the active preservation of the historic sites as specified in the 1987 MOA.

#### **6.1.1.3 Maintenance of Utilities and Access, including Right of Way**

HDOT shall be responsible for the regular maintenance of culverts, utilities, and other built structures and features on the property area. No improvements shall be made to any of these structures or facilities without written approval by HDOT. All utilities shall be owned by HDOT. HDOT shall be responsible for all repairs to property utilities.

LFA-AHLC shall be responsible for promptly notifying HDOT of any damage to the utilities or structures on the property. This notification shall occur within 24 hours of discovery. In the event of any emergency, LFA-AHLC shall following 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
- > If the emergency takes place on Parcel 20, notify the representative from Ho‘omaluhia Gardens
- > If the emergency impacts any HECO property, access, or usage, notify the HECO point of contact immediately

See Section 6.3 for additional emergency procedures.

LFA-AHLC shall be responsible for all costs associated with the regular use of water, electricity, and/or sewer uses.

#### **6.1.1.4 Inspections**

Per Section 3 of Attachment A of the 1987 MOA (“Memorandum of Agreement”, 1987), also detailed above, HDOT is obligated to provide regular inspections of sites identified as being preserved for future scientific research. It states, “Professionally-supervised inspections of these sites are recommended at 2-3 year intervals, with maintenance or modifications as found necessary during inspections.”

Through this SMP, LFA-AHLC recommends HDOT conduct formal inspections twice a year of both Parcel 20 and the Loop Area. 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 LFA-AHLC at least 24 hours prior to the inspection taking place so a representative can join HDOT on these inspections. This will ensure that LFA-AHLC 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 culverts;
- > 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 Best Management Practices inspection as needed (use of the “State of Hawai‘i, Department of Transportation, Highways Division, O‘ahu District – Construction Best Management Practices Checklist”).

### **6.1.2 Hawaiian Electric Industries**

HECO currently gains access to their easement on Parcel 14 via a dirt road that connects to Ho‘omaluhia Program Access Road at the “caution pedestrians” sign past gate 2. This road is not mapped with GPS, but an approximate location is provided on Figure 6. The easement is designed for power line maintenance and to facilitate access to electric power poles #62, 63, and 64. Power pole #63 is on Parcel 20, while #62 and #61 are on Parcel 14. HLID is currently working with HDOT to find a way to allow use of this access road for HLID and any of their contractors. The road terminates at pole #62; however, a foot trail (banana road trail) leads from pole #62 to #61 on Parcel 14. This trail cuts through area 3 of archaeological site 50-80-10-1887.

Recently (as of 06-10-2013), HECO contracted Erik Builders to clear the vegetation on this bypass road to aid in gaining access to their easement on Parcel 14.





### **6.1.3 LFA-AHLC**

Best Management Practices will be employed by LFA-AHLC to support the maintenance of 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 weed-whacker or other hand-tool, and the removal of branches blocking the path.
- > Where trails are on steep slopes, and where appropriate along the main access road, vegetative barriers will be established on both sides of the access roads.
- > Herbicides will be transported, stored, mixed and loaded, applied and disposed of following label instructions to minimize the potential for polluted storm water runoff. LFA-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.
- > No herbicides or rodenticides of any kind will be used in Parcel 20 to protect visitors and food crops from exposure. Additionally, LFA-AHLC will be requesting that both HDOT and City and County of Honolulu refrain from using any herbicides or rodenticides in Parcel 20.

## 6.2 General Safety, Environmental Management, and Sustainability

LFA-AHLC 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 LFA-AHLC 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"> <li>&gt; Honoring their diversity and culture, and traditional knowledge;</li> <li>&gt; Assuring safe practices and facilities for their use; and</li> <li>&gt; Providing opportunities for all to access and be inspired by program resources.</li> </ul> <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>

- > LFA-AHLC commits to meeting, and exceeding when possible, local, state, and federal requirements for environmental and safety compliance.
- > LFA-AHLC will strive to eliminate all preventable workplace accidents, spills, or lost time injuries at LFA-AHLC. Nearly all workplace accidents and most hazardous materials spills occurring in programs are preventable, the result of unsafe acts or a lack of vigilance and attention performed by employees or volunteers. Each LFA-AHLC employee shares in the responsibility to achieve a safe and sustainable workplace and to avoid accidents and environmental damages. Working safely and in an environmentally responsible manner is a condition of employment at LFA-AHLC, and we each must take full responsibility for our own actions. The recognition and elimination of unsafe or environmentally harmful acts and conditions will be identified as an important aspect of each employee's performance; and efforts to improve workplace safety and institute environmentally preferable practices will be recognized and rewarded.
- > Safety and environmental performance will be considered in everything we do, by every employee, starting from the top. Accountability for providing a safe workplace, a strong safety culture, and a commitment to environmental compliance and sustainability within the program rests with line management. Program supervisors from the Superintendent through first line supervisors are charged with ensuring their leadership creates a workplace climate which enhances safety communication, assures environmental compliance, and promotes sustainable practices. Line managers and supervisors have the primary responsibility for leading regular inspections and audits of their work areas and for the prompt and thorough reporting and investigation of accidents

and environmental incidents, including spills and releases. Employees or volunteers at every level will participate in inspection of their work areas, critique of their work practices, and investigation of accidents and incidents. We will assign clear responsibility to our employees or volunteers for safety and environmental activities and hold them accountable for their performance, recognizing superior effort when it is demonstrated. Performance standards for all supervisors will include a safety, environmental compliance, and sustainability performance element.

- > Employees or volunteers will receive sufficient training to perform their work safely and in an environmentally sound, sustainable manner. Supervisors will ensure employees or volunteers are not assigned to tasks for which they have not received training in safe and appropriate work practices, and will identify and arrange for special orientation, training, or certification required for the operation of all equipment. Employees or volunteers will be provided training in their environmental compliance responsibilities and will be supported in seeking knowledge of and current information about environmentally sustainable practices.
- > Accidents, with or without injuries, as well as spills or releases of hazardous substances, will be reported and investigated in a prompt and thorough manner so we learn from and do not repeat them. Supervisors will promptly perform initial reporting and investigation as specified in the program Documented Safety Plan and Integrated Environmental Plan accordingly. Principles of root cause analysis will be employed, and results of investigation will be reported to the Superintendent. Corrective actions will be developed accordingly (consistent with procedures in the Documented Safety Plan or Integrated Environmental Plan) with an emphasis on obtaining systematic solutions rather than quick fixes.
- > Lessons learned from the investigation of safety and environmental accidents, incidents, and near misses will be identified and shared with all employees or volunteers. The information learned from self-reporting and investigations will be shared with all staff in a non-confrontational manner. Management and supervisory staff will foster an environment that promotes open dialogue with involved parties and other staff. Employees or volunteers will be encouraged to report their own near-misses to their supervisors.
- > Project operational equipment will be maintained in safe and environmentally sound condition. Employees or volunteers and supervisors 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. Supervisors will forward information on safety or environmental-related equipment repair or replacement needs to the management team for consideration in budget allocation decisions. Critical deficiencies will be corrected promptly, or the equipment will be red-lined. Supervisors will never knowingly assign employees or volunteers to work with unsafe equipment or in hazardous conditions without proper training and personal protective equipment. If it cannot be used safely or without causing unacceptable environmental damage, we will not use it.
- > We are committed to continuous improvement. We will establish quantifiable metrics in our objectives and targets and monitor our safety and environmental performance as detailed in the program Documented Safety Plan and Integrated Environmental Plan.
- > Our sustainability efforts will lead by example. LFA-AHLC will strive to be a leader in the state and in our community by demonstrating sustainable environmental practices, including toxics reduction and pollution prevention. Program staff will be empowered to use the program's high visibility to communicate with program visitors and members of the surrounding communities about our efforts and the applicability of sustainable practices beyond the program. Program employees or volunteers will be encouraged to apply sustainable practices at home and bring best practices they learn about to the workplace.

## 6.3 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 workers and 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 well-maintained as possible. Both Parcel 20 and the Loop Area are special properties. 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.

### 6.3.1 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 to Parcel 20, it will become increasingly important to ensure that any gates are properly maintained and locked when LFA-AHLC does not have events taking place on the property.

Any trespassers should be immediately asked to leave. Should they refuse to leave, LFA-AHLC has the authority to call “911” and ask that trespassers be removed from the property. LFA-AHLC 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:

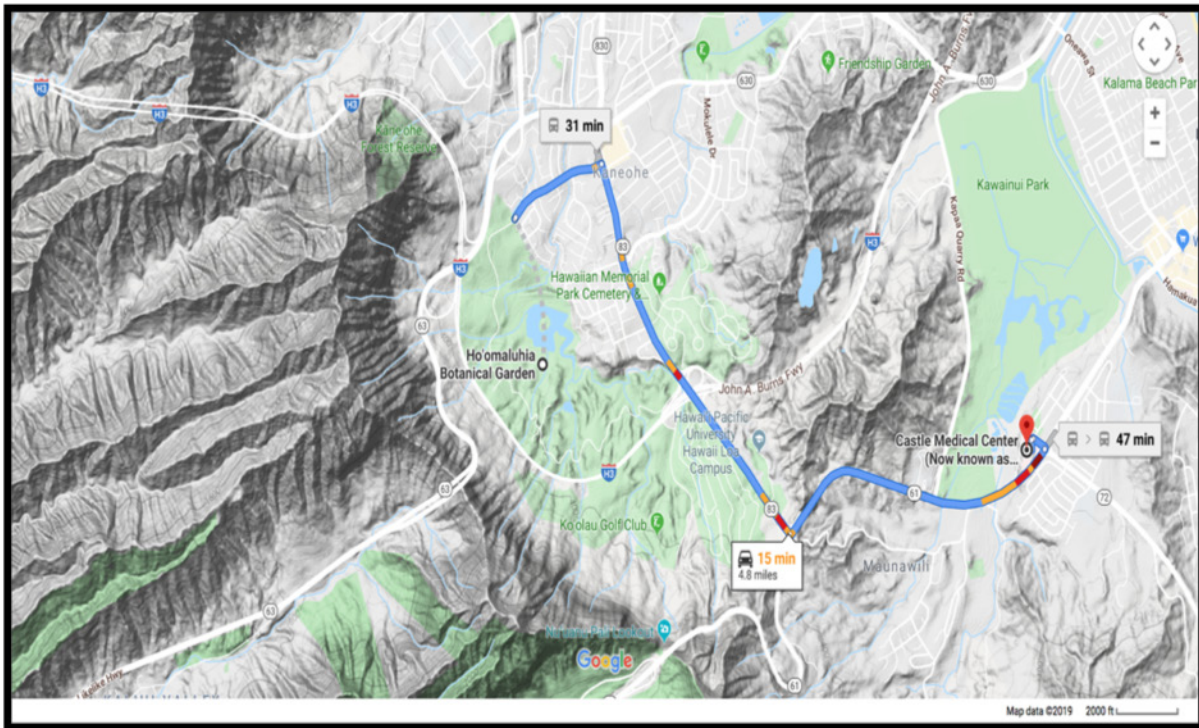
- > Personal protective equipment must always be used around construction activity – no persons will be allowed in a construction zone or near heavy equipment without personal protective equipment ;
- > Always travel with a charged cell phone when in the property area;
- > Always try to hike with a buddy 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.

#### 6.3.1.1 Location and Nearest Emergency Room

In the event of an 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, the address for Parcel 20 is:

**Ho‘omaluhia Botanical Garden  
45-680 Luluku Road, Kāne‘ohe, HI 96744**

The closest emergency room to the property area is Castle Medical Center (now Adventist Health Center). It is located 4.8 miles away, about a 15 minute drive by car.



### Directions to Castle Medical Center (now known as Adventist Health Center) from Ho'omaluhia Botanical Garden:

- ! START - Ho'omaluhia Botanical Garden (45-680 Luluku Road, Kāne'ohe, HI 96744)
- ↑ HEAD NORTHEAST on Park Access Road – EXIT PARK\*  
 \*(If park gate is locked, exit through alternative route through Kō'olau Land Partners property)
- ↑ CONTINUE onto Luluku Road
- TURN RIGHT onto HI-83S (Kamehameha Highway – headed towards Kailua)  
 Follow Kamehameha Highway for 2.1 miles
- ← TURN LEFT onto HI-61 (Pali Highway – headed towards Kailua)  
 Follow Pali Highway for 1.8 miles
- ← TURN LEFT onto 'Ulukahiki Street
- ← TURN LEFT onto Manu Aloha Street
- ← TURN LEFT into Castle Medical Center
- ! ARRIVE at Castle Medical Center (640 'Ulukahiki St. Kailua, HI 96734)

**Castle Medical Center Phone Number: (808) 263-5500**

**Emergency Department Phone Number: (808) 263-5164**



### **6.3.1.2 Emergency Supplies to have on Site**

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

### **6.3.1.3 Hurricane Kit**

Based on Federal Emergency Management Agency guidelines at a minimum, LFA-AHLC shall keep the following prepared during the annual hurricane season:

- > Water: one gallon per person, per day (3-day supply for evacuation, 2-week supply for home).
- > Food: non-perishable, easy-to-prepare items (3-day supply for evacuation, 2-week supply for home).
- > Flashlight.
- > Battery-powered or hand-crank radio (NOAA Weather Radio, if possible).
- > Extra batteries.
- > First aid kit.
- > Medications (7-day supply) and medical items.
- > Multi-purpose tool, like a Swiss Army knife.
- > Sanitation and personal hygiene items.
- > Copies of personal documents (medication list and pertinent medical information, proof of address, deed/lease to home, passports, birth certificates, insurance policies).
- > Cell phone with charger.
- > Family and emergency contact information.
- > Extra cash (ATMs might be inoperable).
- > Extra fuel for generator and car.

Additional supplies might include towels, plastic sheeting, duct tape, scissors and work gloves.

### **6.3.1.4 Staff Certifications**

All staff are required to have medical clearance to work on site. This includes being up-to-date on all vaccinations. Staff are required to be actively CPR trained.

### **6.3.1.5 Emergency Contacts**

LFA-AHLC shall keep an updated list of emergency contacts as partnerships and programming are developed.

**In case of emergency, CALL 911 IMMEDIATELY**

Table 8. Emergency Contacts

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	N/A	
HDOT	H-3 Tunnel	(808) 485-6233	N/A	
HDOT	Maintenance Engineer HWY-O Ryan Nakata	(808) 831-6700 ext. 134	Karen “Kay” Yamauchi	(808) 831-6700 ext. 135
Ho‘omaluhia Botanical Garden	Brian Groelsma – Supervisor	808-721-3141 or 808-233-7325	N/A	

### **6.3.2 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.

#### **6.3.2.1 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 staff person contact the current supervisor on duty
5. If student, have another staff person locate teacher or adult chaperone
6. Staff member will stay with the victim until police, family or others arrive
7. Document incident
8. Notify HDOT

#### **6.3.2.2 Blood borne 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 supervisor
10. Document incident

#### **6.3.2.3 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 supervisor on duty
3. Contact the police; follow their instructions; they are now in charge
4. Ensure that all members, participants and staff are safe
5. Follow evacuation procedures if directed to do so by police
6. Document incident

#### **6.3.2.4 Building and Site Evacuation**

1. Evacuation should be initiated by supervisor on duty or authorities when risks warrant evacuation - refer to posted diagrams for exits
2. Contact EMS and/or police
3. Notify staff to assist with pool, childcare, senior and other priority areas
4. Notify all people to leave the building by PA system
5. 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.
6. Check restrooms and locker areas to make sure everyone is out
7. Stand by exits to make sure no one re-enters
8. Secure doors and assemble at a specific, safe location outside
9. Follow the instructions and direction of the police
10. Document incident

#### **6.3.2.5 Disorderly Persons**

There are many different situations that may occur which could cause staff and patrons 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 a staff person encounters an irate or disruptive person, staff should:

1. Remain as calm as possible
2. Remember that their personal safety and that of other staff or patrons 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 supervisor on duty

Behavioral expectations for patrons and staff should be communicated through a code of conduct and through posted rules within the facility. Staff should be trained in conflict resolution and workplace violence prevention, so they are able to identify potentially bad situations before they explode and deal with people without escalating their distress.

### **6.3.2.6 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 staff. 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 staff 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 supervisor immediately of any intruders.
6. Complete an incident report and any other reports requested.

LFA-AHLC shall maintain a list of individuals who are not allowed on property for which LFA-AHLC 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.

LFA-AHLC may not prohibit federal, state, or city employees or volunteers from entering the property, although LFA-AHLC 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.

### **6.3.2.7 Kidnapping**

**When 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 supervisor on duty
4. Taking attendance for all youth and initiating search teams of staff
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



### **6.3.2.8 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 Executive Director 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 Executive Director or their designee
4. The Executive Director or their designee will immediately notify the Police upon activation of a

#### **Lockdown Prior to an emergency:**

1. Review lockdown and evacuation procedures with staff, patrons, youth and parents. Clearly communicate how parents should respond to the emergency and how their children will be protected.
2. Identify communication strategies for notifying police, fire, health officials, staff, patrons and parents. These may include radio, landlines, cell phones, text messages, email and other means. Secondary means for communications should be identified in the event the primary communication method is not available. Prepare phone and other communication lists.
3. Identify meeting room - select an internal room, preferably one without windows for those in the facility to assemble.

#### **During an emergency:**

1. Activate Lockdown
2. Notify all concerned
3. Staff account for all children and occupants
4. Secure facility, post signage
5. Move to meeting place/room
6. Wait for further instructions and/or until Lockdown is cleared

### **6.3.2.9 Missing or Fleeing Child**

#### **When a child is missing or suspected of fleeing a program, staff should respond by:**

1. Activating the emergency plan and notifying other staff
2. Securing the facility
3. Notify the supervisor on duty

4. Taking attendance for all youth and initiating search teams of staff
5. Notify the Police Department (number)
6. Notify the child's parents
7. Notify local Child Care authority if applicable
8. Document incident

#### **6.3.2.10 Power Outage**

1. Flashlights are located with First aid kits
2. Call 911 if concerned about a fire or safety hazard
3. Supervisor on duty will contact property manager, if needed
4. Evacuate and secure the facility if power has not returned after 30 minutes
5. Document incident

#### **6.3.2.11 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. Staff account for all children and occupants
4. Secure facility, post signage
5. Deactivate air handling system(s)
6. Forward calls to meeting room phone
7. Move to meeting place/room
8. Seal room
9. 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.

#### **6.3.2.11 Site Evacuation for Children, Students, Minors, and Kūpuna**

1. If it is determined that staff and children will be moved to the alternate site location distant from the childcare, assign children to a designated teacher

2. Staff should bring the following items to the alternate sites: a. class/staff attendance sheets and visitor sign-in sheets b. children's emergency and medical information/supplies c. cell phone, if available
3. Children will be taken to the alternate site location by walking, vans or the safest means possible
4. Once at the alternate site location, take attendance again. Teachers must remain with their group of children until the children are picked up by parents or emergency contacts
5. Director will continue to communicate with parents and coordinate pick-up of children
6. Director will report incident to licensor
7. Director will complete a written incident report

#### **6.3.2.12 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

### **6.3.3 Environmental Emergencies**

Due to the nature of the property, there is an acknowledged potential for flooding, rock fall, 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, LFA-AHLC shall be responsible for notifying HDOT of the damage immediately, which shall not be more than 24 hours after the damage is discovered by LFA-AHLC. LFA-AHLC 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.

#### **6.3.3.1 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

### **6.3.3.2 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.

### **6.3.3.3 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. Staff 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. Supervisor on duty 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

### **6.3.3.4 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.

LFA-AHLC shall be responsible for making a good faith effort to secure the property.

### **6.3.3.5 Severe Weather**

LFA-AHLC 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.

LFA-AHLC shall be responsible for making a good faith effort to secure the property.

### 6.3.4 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, Sar-cov-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 or volunteers 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 or volunteers 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 or volunteers.	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.

#### 6.3.4.1 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.

## **Safety Actions**

### **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 child care 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 Health-care 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 is, 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 or

- volunteers 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 or volunteers and children.

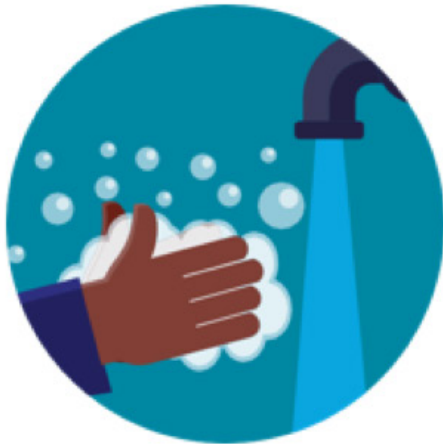
## **Closing**

### **Steps 1–3**

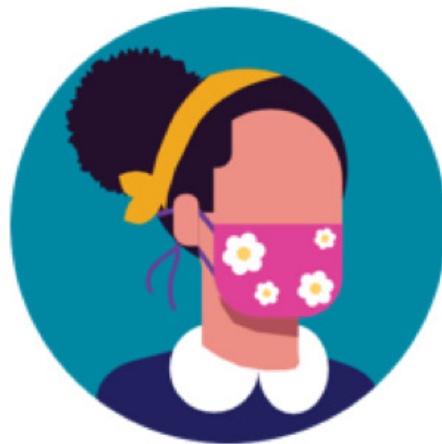
- Check state and local health department notices daily about transmission in the area and adjust operations accordingly.
- In the event a person diagnosed with COVID-19 is determined to have been in the building and poses a risk to the community, programs may consider closing for a short time (1–2 days)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



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



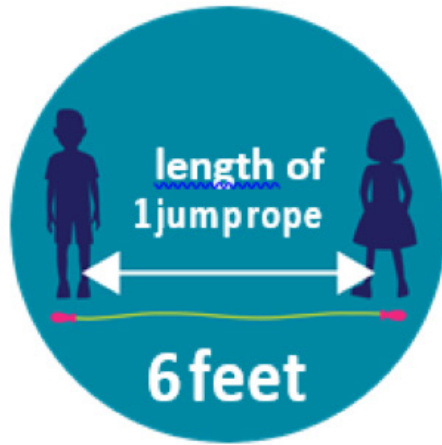
Wash your  
hands often



Wear a cloth  
face cover



Cover your coughs  
and sneezes



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



[cdc.gov/coronavirus](https://cdc.gov/coronavirus)

#### 6.3.4.2 Beyond Recovery: Reopening Hawai'i

A Strategy to reopen and reshape Hawaii's economy. Pages from:

[https://governor.hawaii.gov/wp-content/uploads/2020/05/Gov\\_Reopening-Presentation-Slide-Deck\\_18-May-2020.pdf](https://governor.hawaii.gov/wp-content/uploads/2020/05/Gov_Reopening-Presentation-Slide-Deck_18-May-2020.pdf)



The slide features a background image of a Hawaiian landscape with mountains and a body of water under a sunset sky. The title "Public Health Pillars to Ensure Community Safety" is centered at the top. Below the title are four teal hexagonal icons representing different public health pillars: a spray bottle for Prevention, a bar chart for Detection, a hospital building for Containment, and a thermometer for Treatment. Each icon is labeled with its respective pillar name. Below each label is a list of specific actions, each preceded by a checkmark. The date "May 18, 2020" is in the bottom left corner, and the number "16" is in the bottom right corner.

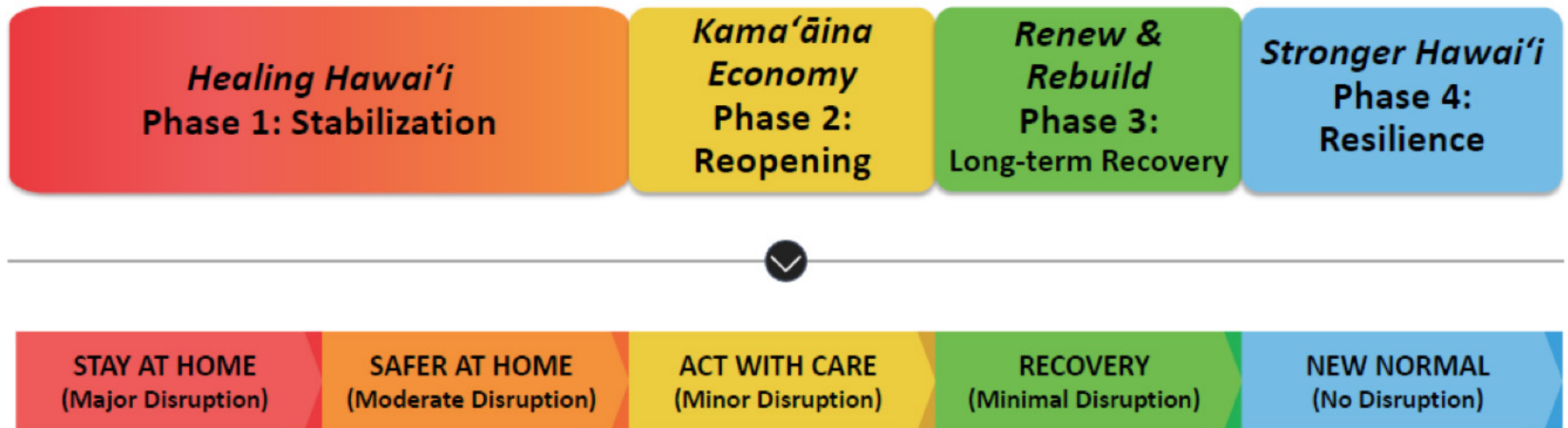
## Public Health Pillars to Ensure Community Safety

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

May 18, 2020

16

# 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.)

May 18, 2020

6



## 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 community spread</u>	Surge/crisis plans deployed <u>and</u> hospital capacity maxed out	Max capacity of contact tracing is <u>below</u> the number of new cases/close contacts per day	Max capacity of testing is <u>below</u> the number of new cases/close contacts per day	<ul style="list-style-type: none"><li>• Safe Practices</li><li>• <u>Essential activities</u> and their support services</li><li>• Prepare to resume low-risk activities</li></ul>
SAFER AT HOME (MODERATE DISRUPTION)	Number of new hospital cases <u>requires consideration of</u> hospital surge/crisis plans	Median number of new cases per day per week indicates <u>controlled community spread</u>	Surge/crisis plans considered <u>and</u> hospitals can increase capacity by at least 10% within 5 days	<u>80-100% of max capacity</u> of contact tracing would be reached at current rate of new cases/close contacts per day	<u>80-100% of max capacity</u> of testing would be reached at current rate of new cases/close contacts per day	<ul style="list-style-type: none"><li>• Continue above</li><li>• Resume <u>low-risk activities</u></li><li>• Prepare to resume medium to high-risk activities</li></ul>
ACT WITH CARE (MINOR DISRUPTION)	Number of new hospital cases <u>requires preparation of</u> hospital surge/crisis plans	Median number of new cases per day per week indicates <u>local, controlled clusters</u>	Surge/crisis plans in preparation <u>and</u> hospitals can increase capacity by at least 25% within 5 days	<u>50-80% of max capacity</u> of contact tracing would be reached at current rate of new cases/close contacts per day	<u>50-80% of max capacity</u> of testing would be reached at current rate of new cases/close contacts per day	<ul style="list-style-type: none"><li>• Continue above</li><li>• Start with <u>medium-risk activities</u>; then move to <u>high-risk activities</u></li><li>• Prepare to resume highest risk activities</li></ul>
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	<u>&lt;50% of max capacity</u> of contact tracing would be reached at current rate of new cases/close contacts per day	<u>&lt;50% of max capacity</u> of testing would be reached at current rate of new cases/close contacts per day	<ul style="list-style-type: none"><li>• Continue above</li><li>• Resume <u>highest-risk activities</u></li></ul>
NEW NORMAL (NO DISRUPTION)						<ul style="list-style-type: none"><li>• Continue above</li><li>• Adjust Safe Practices to new normal</li></ul>

21

May 18, 2020

# State Department of Health

## Reopening Hawai'i Safe Practices



ACTION	DESCRIPTION
<b>Hand Hygiene</b>	Hand washing and/or 60% hand sanitizer facilities available in work and public settings for use by employees and the public
<b>Home if Ill</b>	Stay home if ill (except to seek care—call first)
<b>Face Covering</b>	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
<b>Surface Cleaning</b>	Regular cleaning/disinfection of surfaces and objects touched by the public and employees
<b>Physical Distance</b>	Maintain 6 feet distance between <u>ALL</u> individuals to the fullest extent possible
<b>Protect High Risk</b>	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.
<b>Isolation</b>	Isolation of cases either in home or in facility, under DOH monitoring & direction
<b>Quarantine</b>	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



## 6.4 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 property or working on the property, including HECO, notify LFA-AHLC prior to entering the property 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.

## 6.5 Land Management and Access

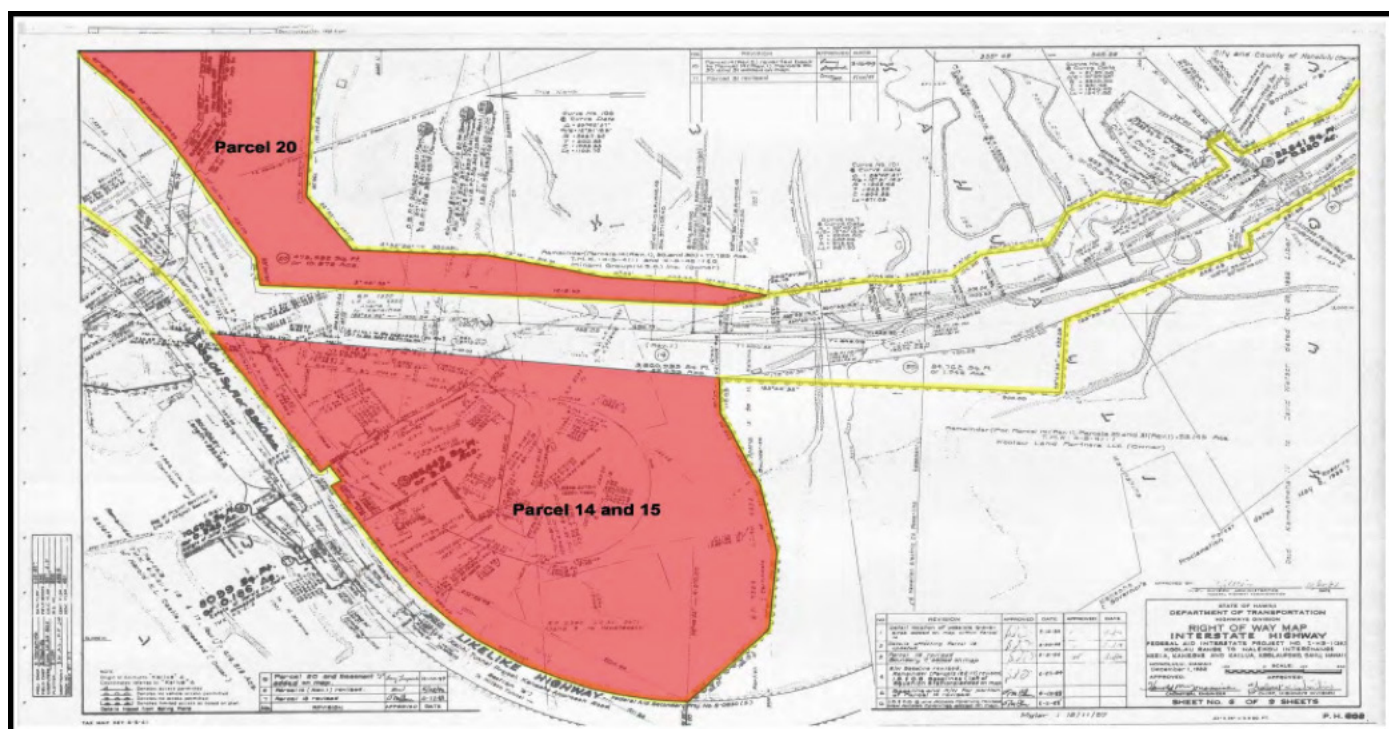


Figure 11: Right of Way Map for Luluku Project Area (yellow delineate Right of Way) (HLID Team, OHA 2014)

It is unclear as to how the ongoing maintenance and preservation responsibilities will be enforced once HLID sunsets, which is anticipated for 2021. 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 Luluku Stewards should thoughtfully consider the development of a supplemental MOA that addresses additional adverse impacts to the Luluku Cultural Landscape that resulted from the H-3 Project.

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



## 6.6 Communication

LFA-AHLC shall be responsible for maintaining regular communication with the HWY-O designee. LFA-AHLC 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 Insurance, Indemnification, and Liability

### 6.7.1 Insurance

#### 6.7.1.1 Insurance Required under OHA MOA

At all times during the term of this Agreement, LFA-AHLC shall obtain and maintain in full force and effect, any and all insurance to cover LFA-AHLC's operations under this Agreement 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.

Prior to commencing work pursuant to this Agreement, LFA-AHLC shall provide evidence that they have in full force and effect the following policies:

1. Commercial Liability Insurance: LFA-AHLC shall maintain commercial general liability (CGL) and if necessary commercial umbrella insurance with a limit of not less than \$1,000,000.00 per occurrence and \$2,000,000.00 general aggregate. OHA shall be included as an insured under the CGL, using ISO additional insured endorsement CG 20 10 (or equivalent), and under the commercial umbrella, if any. Policy shall be an "Occurrence" form of policy, unless otherwise specifically approved by OHA.
2. Automobile Liability Insurance: Auto Liability Policy shall have a combined Single Limit of \$1,000,000.00 for each accident or equivalent and shall cover owned, hired and non-owned vehicles.
3. Workmen's Compensation Coverage: Policy shall include coverage required by State of Hawai'i and include Part B coverage as follows: Employers Liability with limits of \$100,000.00 for each accident, \$500,000.00 disease policy limit, and \$100,000.00 disease policy limit per employee.

LFA-AHLC shall provide to OHA and maintain current certificates of insurance, prepared by a duly authorized agent, and shall provide copies of the insurance policy and current certificates of insurance, upon request by OHA.

Failure of LFA-AHLC to provide and keep in full force and effect such insurance shall be regarded as material default under this Agreement, entitling OHA to exercise any or all of the remedies provided in this Agreement for default of LFA-AHLC.

The procuring of such required policy or policies of insurance shall not be construed to limit LFA-AHLC's liability hereunder or to fulfill the indemnification provisions and requirements of this Agreement.

The LFA-AHLC shall notify OHA in writing of any cancellation or change in insurance thirty (30) calendar days prior to the effective date of such cancellation or change.

OHA is a self-insured State agency. The Stewards insurance shall be primary. Any insurance maintained by the State of Hawai'i shall apply in excess of and shall not contribute with insurance provided by the Stewards.

### **6.7.1.2 Insurance Required for HDOT Revocable Permit**

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

### **6.7.2 Vehicle Registration, License, and Safety Check**

Any type of vehicle used by LFA-AHLC on HDOT property of the HLID Luluku project area shall be in compliance with all necessary requirements of the law, including but not necessarily limited to current insurance, licensure, and a safety check.

Non-compliant vehicles shall not be allowed on HDOT property.

Should LFA-AHLC violate this requirement, LFA-AHLC will solely be held accountable for any violation expenses or punitive actions incurred. Failure to comply may also result in a termination of the MOA with OHA.

### **6.7.3 Indemnification**

LFA-AHLC shall defend, indemnify and hold harmless the State of Hawai'i and OHA, its Trustees, officers, employees or volunteers 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 LFA-AHLC or LFA-AHLC's officers, employees or volunteers, or agents occurring during or in connection with the performance of LFA-AHLC's services under this Agreement.

Furthermore, nothing herein contained shall excuse LFA-AHLC 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.

LFA-AHLC intentionally, voluntarily, and knowingly assumes the sole and entire liability for any of its officers, employees or volunteers, and agents for all loss, cost, damage, or injury caused, either directly or indirectly, by LFA-AHLC or LFA-AHLC's officers, employees or volunteers, and agents in the course of the Stewards appointment.

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

LFA-AHLC shall also indemnify HDOT in accordance with the revocable permit to be issued by HDOT.

## References

- "Memorandum of Agreement". (1987, August). [Advisory Council of Historic Preservation, Federal Highways Administration, Hawai'i State Historic Preservation Officer, Office of Hawaiian Affairs, and Hawai'i State Department of Transportation]. Honolulu, HI.
- "Memorandum of Agreement: HLID 19-01". (2019, September). [Office of Hawaiian Affairs and Luluku Farmers Association-Aloha 'Āina Health and Learning Center]. Honolulu, HI.
- Allen, J. a. (1987). *Five Upland Ili: Archaeological and Historical Investigation in the Kāne'ōhe Interchange, Interstate Highway H-3*. Honolulu: Bishop Museum Press.
- Allen, J., Lennstrom, H., Dolan, B., & Leidemann, H. (2002). *Four Sites in Upland and Kāne'ōhe: Supplemental Survey and Archaeological Monitoring for Interstate Route H-3*. Honolulu, HI: Bishop Museum, Department of Anthropology.
- Allen, J., Riford, M., Bennett, T., & Murakami, G. (1987). *Five Upland Ili: Archaeological and Historical Investigations in the Kāne'ōhe Interchange, Interstate Highway H-3, Island of O'ahu*. Honolulu, HI: Bishop Museum, Department of Anthropology.
- Center for Disease Control. (2020, May 25). *Coronavirus Disease 2019 (COVID-19)*. Retrieved from [www.cdc.gov: https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/index.html](https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/index.html)
- Community Planning and Engineering, Inc. (2019). *Hālawā-Luluku Development Feasibility Report: Luluku*. Honolulu.
- Hālawā-Luluku Interpretive Development Project. (2014). *Project Descriptions: North Hālawā Valley and Luluku Project Areas*. Honolulu: Office of Hawaiian Affairs.
- Hālawā-Luluku Interpretive Development Project. (2014). *Project Descriptions: North Hālawā Valley and Luluku Project Areas*. Honolulu.
- Hālawā-Luluku Interpretive Development Project and Keala Pono Archaeological Consulting, LLC. (2016). *DRAFT—Preservation Plan for Selected Sites along the Interstate H-3 Highway Corridor, Luluku (Kāne'ōhe Ahupua'a), Ko'olaupoko District, Island of O'ahu, Hawai'i*. Honolulu.
- Hālawā-Luluku Interpretive Development Project, R. T. (2008). *Final Interpretive Development Plan*. Honolulu: Office of Hawaiian Affairs.
- Leidemann, H., Dockall, J., Lennstrom, H., & Lebo, S. (2004). *Continuity and Change in Upland Kāne'ōhe Agriculture: Data Recovery and Monitoring Investigations at Site 50-80-10-1887, Luluku'Ili, O'ahu*. Honolulu, HI: Bishop Museum, Department of Anthropology.
- Leidemann, H., Hartzell, L., Gordon, I., Lebo, S., Dockall, J., Lennstrom, H., . . . Dolan, B. (2003). *Continuity and Change in Upland Kāne'ōhe Habitation: Data Recovery and Monitoring Investigations in Luluku, Kapalai, and Punalu'u Maukaili, O'ahu*. Honolulu, HI: Bishop Museum, Department of Anthropology. .
- National Parks Service, Department of Interior. (2013, March 27). *Safety Environmental Management, and Sustainability*. Retrieved from [www.nps.gov: https://www.nps.gov/apis/learn/nature/upload/SO\\_31.pdf](https://www.nps.gov/apis/learn/nature/upload/SO_31.pdf)

- Office of Hawaiian Affairs Contract #1385. (1999, August 10). *Cooperative Agreement Between Office of Hawaiian Affairs and Department of Transportation, State of Hawai'i*. Honolulu, HI.
- Office of Hawaiian Affairs Contract #2550. (2010, June 29). *Cooperative Agreement Between Office of Hawaiian Affairs and Department of Transportation, State of Hawai'i*. Honolulu, HI.
- Office of Hawaiian Affairs Contract Amendment #2550.01. (2012, June 20). *Cooperative Agreement Between Office of Hawaiian Affairs and Department of Transportation, State of Hawai'i*. Honolulu, HI.
- Ripperton, J. a. (1942). *Vegetation Zones of Hawai'i*. *Hawai'i Agricultural Experiment Station Bulletin 89*. Honolulu, HI: University of Hawai'i.
- State of Hawai'i. (2020, May 25). *Beyond Recovery:Reopening Hawai'i; A strategy to reopen and reshape Hawai'i's economy*. Retrieved from Governor.Hawaii.gov: [https://governor.hawaii.gov/wp-content/uploads/2020/05/Gov\\_Reopening-Presentation-Slide-Deck\\_18-May-2020.pdf](https://governor.hawaii.gov/wp-content/uploads/2020/05/Gov_Reopening-Presentation-Slide-Deck_18-May-2020.pdf)
- Sterling, E. P. (1978). *Sites Of O'ahu*. Honolulu: Bishop Museum Press.

# Appendices

SEE ATTACHED:

Appendix A – 1987 MOA .....Page: 118

Appendix B – 2008 Final IDP.....Page: 169

Appendix C – 2010 CA#2550.....Page: 355

Appendix D – 2012 CA#2550.01.....Page: 370

Appendix E – 2019 Luluku MOA.....Page: 385

Appendix F – 2019 Luluku Feasibility Report.....Page: 398