

Bernard P. Carvalho, Jr.
Mayor



FILE COPY

MAR 23 2013

Leonard A. Rapozo, Jr.
Director

Gary K. Heu
Managing Director

Ian K. Costa.
Deputy Director

DEPARTMENT OF PARKS AND RECREATION

County of Kaua'i, State of Hawai'i

4444 Rice Street, Suite 105, Lihu'e, Hawai'i 96766
TEL (808) 241-4992 FAX (808) 241-6604

March 6, 2013

Gary Gill, Acting Director
Office of Environmental Quality Control
235 S. Beretania Street, Room 702
Honolulu, Hawai'i 96813

Dear Mr. Gill,

**Finding of No Significant Impact (FONSI)
for Kalepa Motocross Track
Kaua'i, Hawai'i**

RECEIVED
13 MAR 13 AM 11:33
OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

The County of Kaua'i, Planning Department hereby transmits this Final Environmental Assessment and Finding of No Significant Impact (FEA-FONSI) for the Kalepa Motocross Track project situated at Tax Map Key (4) 3-9-002: 036 on the island of Kaua'i for publication in the next available edition of the *Environmental Notice*.

We have enclosed a completed OEQC Publication Form and one (1) copy of the Final EA in Adobe PDF format on a CD; and one (1) hardcopy of the Final EA. Please feel free to contact me if you have any questions.

Very truly yours,

Ian K. Costa
Deputy Director

Enclosures

**Publication Form
The Environmental Notice
Office of Environmental Quality Control**

Instructions: Please submit one hardcopy of the document along a with determination letter from the agency. On a compact disk, put an electronic copy of this publication form in MS Word and a PDF of the EA or EIS. Please make sure that your PDF documents are ADA compliant. Mahalo.

Project Name: Kalepa Motocross Track

Applicable Law: Chapter 343, Hawai'i Revised Statutes

Type of Document: Final Environmental Assessment/ FONSI

Island: Kauai

District: Lihue

TMK: (4) 3-9-002:036

Permits Required: NPDES
Noise Permit/ Variance
County Class II Zoning Permit
County Grubbing and Grading Permit

Proposing Agency: Department of Parks and Recreation, Parks Division
Address 4444 Rice Street, Ste. 105, Līhu'e, Hawai'i 96766-1340
Contact & Phone Mr. Ian Costa, Deputy Director
Phone: (808) 241-4460

Approving Agency: Same as above.

Consultant: SSFM International, Inc.
Address 501 Sumner Street, Suite 620, Honolulu, HI 96817
Contact & Phone Mr. Jared K. Chang
Phone: 531-1308

Project Summary: Summary of the direct, indirect, secondary, and cumulative impacts of the proposed action (less than 200 words). Please keep the summary brief and on this one page.

The Kaua‘i Department of Parks and Recreation is proposing to develop a new 14.8-acre motocross track complex located in Kalepa, Līhu‘e. The purpose of the project is to relocate the existing Wailuā Motocross Complex, which is in close proximity to sensitive land uses, specifically Nukoli‘i Beach Park, Wailuā Golf Course, and resort properties. Following completion of the project, the existing Wailuā Motocross Complex would revert to open space.

The Kālepa Motocross Track will be owned by the County and operated with assistance from Kaua‘i’s motocross associations. The 18-acre site was dedicated to the County by Executive Order to set-aside an area in Kālepa to relocate the existing motocross track in Wailuā. A 3.2-acre portion of this site will remain as open space to provide a buffer from adjacent uses. The project will provide a safe, family oriented, drug-free recreational environment to encourage statewide or national amateur motocross and bicycle motocross (BMX) competition.

Ideas for the complex include a natural terrain style motocross track, BMX track and a mini keiki (child) track that could also accommodate BMX. Other types of tracks may be possible if space permits. Track designs will be predicated on the existing topography, the needs of riders, and maintenance concerns.

FINAL

ENVIRONMENTAL ASSESSMENT

KALEPA MOTOCROSS TRACK

January 2013

Prepared For:



County of Kauai
Dept. of Parks and Recreation

Prepared By:

SSFM
INTERNATIONAL



FINAL ENVIRONMENTAL ASSESSMENT

FOR

KĀLEPA MOTOCROSS TRACK

(REPLACEMENT OF WAILUĀ MOTOCROSS COMPLEX)

LĪHU'E DISTRICT, KAUA'I, HAWAI'I

JANUARY 2013

PREPARED FOR:

Department of Parks and Recreation
County of Kaua'i
4444 Rice Street, Suite 105
Līhu'e, Hawai'i 96766-1340

PREPARED BY:



SSFM International, Inc.
501 Sumner Street, Suite 620
Honolulu, Hawai'i 96817

Project Summary

Project Name:	Kālepa Motocross Track
Location / Tax Map Key:	Off Mā'alo Road, Kālepa, Līhu'e, Island of Kaua'i / TMK: (4) 3-9-002: 036
Project Site Existing Use and Land Use Designations:	<p><u>Existing Use:</u> Vacant <u>State Land Use:</u> Agricultural <u>Līhu'e Planning District Designation:</u> Agricultural <u>Kaua'i County Zoning:</u> Agricultural</p>
Proposed Action:	<p>The County of Kaua'i, Department of Parks and Recreation, Parks Division is proposing to develop a new motocross track complex located within the Līhu'e District of the Island of Kaua'i. The Kālepa Motocross site will be accessed from Mā'alo Road. This new facility will be owned and operated by the Department of Parks and Recreation, Parks Division with assistance from Kaua'i's motocross community associations.</p> <p>The 18-acre parcel was dedicated to the County of Kaua'i by Executive Order from the Board of Land and Natural Resources for a set-aside area in Kālepa to relocate the existing motocross track from Marine Camp in Wailuā. Plans for a new 14.8-acre motocross facility is being developed through ongoing communications between the County of Kaua'i and the island's motocross community. The remaining 3.2-acres of the project site will be kept as open space and provide a natural buffer for motocross activities.</p> <p>The Proposed Action is to develop a new 14.8-acre motocross facility to provide a safe, family-oriented, drug-free recreational environment to encourage statewide or national amateur motocross and bicycle motocross (BMX) competition. The existing Wailuā Motocross Complex located next to Nukoli'i Beach Park would revert to open space.</p> <p>Open practice will be held on weekends and holidays, and if possible one to two weekdays. Events will include monthly races, motocross instruction schools, exhibitions by professional riders, and other special events. Ideas for the park include an outdoor natural terrain style motocross track, a BMX track, and a mini keiki (child) track that will also accommodate BMX. Other types of tracks may be possible if space permits. Track design will be predicated on the existing topography, the needs of the riders, and maintenance concerns.</p>
Purpose of Project:	<p>The purpose of the project is to develop a new motocross facility and relocate the existing Wailuā Motocross Complex, which is in close proximity to more sensitive land uses, specifically Nukoli'i Beach Park, Wailuā Golf Course, and resort properties. The new facility will mitigate these impacts by relocating the existing facility to a more suitable location.</p> <p>In addition, Marine Camp Road, an unpaved road that provides access to the Wailuā Motocross Complex from Kūhiō Highway, also provides direct vehicular access to Nukoli'i Beach, which has caused degradation of the</p>

	<p>beach habitat and potentially puts buried archaeological resources at risk. By closing the Wailuā Motocross site, this roadway can be better maintained and controlled.</p> <p>Recent increases of land closures have left many motocross riders with no alternative but to ride illegally on private or public lands. This includes environmentally and culturally sensitive areas such as Kālepa Ridge and Mauna Kapu. A new Kālepa Motocross Track will provide a much needed safe place to ride and activities for the youth on Kaua'i.</p>
HRS Chapter 343 Proposing Agency and Approving Agency:	<p>County of Kaua'i Department of Parks and Recreation, Parks Division 4444 Rice Street, Ste. 105 Līhu'e, HI 96766-1340 Contact: Mr. Ian K. Costa, Deputy Director (Phone: 808-241-4460)</p>
HRS 343 Determination:	<p>Finding of No Significant Impact (FONSI)</p>
Project Site Permits/Approvals Required:	<ul style="list-style-type: none"> • State DLNR/SHPD - Archaeological Inventory Survey, Archaeological Mitigation Plan, Cultural Impact Assessment approvals • State DOH - National Pollutant Discharge Elimination System (NPDES) • State DOH - Noise Permit/Variance • Class II Zoning Permit • County Grubbing and Grading Permit
EA Preparer:	<p>SSFM International, Inc. 501 Sumner Street, Suite 620 Honolulu, HI 96817 Contact: Mr. Jared K. Chang (Phone: 808-531-1308)</p>
Individuals, Community Groups & Agency Consults:	<p>See Chapter 8: Agency and Public Consultation for list</p>

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION	1-1
1.1 Purpose for Environmental Assessment	1-1
1.2 Project Background	1-1
1.3 Land Ownership	1-6
1.4 Land Use Classifications and Designations	1-6
1.4.1 State Land Use Districts	1-6
1.4.2 County of Kaua'i General Plan and Development Plans	1-7
1.4.3 County Zoning Districts	1-7
1.4.4 Special Management Area	1-7
CHAPTER 2: PROJECT DESCRIPTION	2-1
2.1 Project Alternatives	2-1
2.1.1 No-Build	2-1
2.1.2 Proposed Action	2-1
2.2 Purpose and Need for the Proposed Action	2-2
CHAPTER 3: PHYSICAL AND BIOLOGICAL ENVIRONMENT	3-1
3.1 Climate	3-1
3.2 Soils and Topography	3-2
3.2.1 Existing Conditions	3-2
3.2.1.1 Agricultural Lands	3-2
3.2.2 Project Impacts on Soils and Topography	3-4
3.3 Natural Hazards	3-5
3.3.1 Existing Conditions	3-5
3.3.1.1 Earthquakes	3-5
3.3.1.2 Hurricanes	3-5
3.3.1.3 Flooding	3-6
3.3.1.4 Tsunami	3-6
3.3.2 Project Impacts from Natural Hazards	3-6
3.3.2.1 Earthquakes	3-6
3.3.2.2 Hurricanes	3-7
3.3.2.3 Flooding	3-7
3.3.2.4 Tsunami	3-7
3.4 Air Quality	3-8
3.4.1 Existing Conditions	3-9
3.4.2 Project Impacts on Air Quality	3-9
3.4.3 Mitigation of Air Quality Impacts	3-10
3.5 Noise	3-11
3.5.1 Existing Conditions	3-12
3.5.2 Project Impacts on Noise	3-12

3.5.3	Mitigation of Noise Impacts.....	3-13
3.6	Visual Resources	3-14
3.6.1	Existing Conditions.....	3-14
3.6.2	Project Impacts on Visual Resources	3-14
3.6.3	Mitigation of Impacts on Visual Resources	3-15
3.7	Historic and Archaeological Resources.....	3-15
3.7.1	Existing Conditions.....	3-15
3.7.2	Project Impacts on Historic and Archaeological Resources.....	3-16
3.7.3	Mitigation of Impacts on Historic and Archaeological Resources.....	3-16
3.8	Cultural Impact Assessment	3-16
3.8.1	Existing Conditions.....	3-17
3.8.2	Project Impacts on Cultural Resources.....	3-17
3.8.3	Mitigation of Impacts on Cultural Resources	3-18
3.9	Botanical Resources.....	3-18
3.9.1	Existing Conditions.....	3-18
3.9.2	Project Impacts on Botanical Resources.....	3-18
3.9.3	Mitigation of Impacts on Botanical Resources	3-19
3.10	Hydrogeological Resources.....	3-19
3.10.1	Existing Conditions.....	3-19
3.10.2	Project Impacts on Hydrogeological Resources.....	3-19
3.10.3	Mitigation of Impacts on Hydrogeological Resources.....	3-20
3.11	Streams and Water Resources.....	3-20
3.11.1	Existing Conditions.....	3-20
3.11.2	Project Impacts on Streams and Water Resources	3-21
3.11.3	Mitigation of Impacts on Streams and Water Resources.....	3-21
3.12	Wildlife	3-21
3.12.1	Existing Conditions.....	3-21
3.12.2	Project Impacts on Wildlife.....	3-22
3.12.3	Mitigation of Impacts on Wildlife	3-22
CHAPTER 4: ECONOMIC AND SOCIAL FACTORS.....		4-1
4.1	Economic Factors.....	4-1
4.1.1	Economic Impacts of No-Build Alternative.....	4-1
4.1.2	Economic Impacts of Proposed Action	4-1
4.2	Social Factors	4-3
4.2.1	Social Impacts of No-Build Alternative	4-3
4.2.2	Social Impacts of Proposed Action	4-3
4.3	Secondary and Cumulative Impacts	4-3
4.3.1	Secondary Impacts.....	4-3
4.3.2	Cumulative Impacts	4-4
CHAPTER 5: INFRASTRUCTURE		5-1
5.1	Water Facilities	5-1

5.2	Wastewater.....	5-1
5.3	Drainage.....	5-2
5.4	Solid Waste.....	5-2
5.5	Transportation Facilities.....	5-3
CHAPTER 6: PUBLIC FACILITIES AND UTILITIES		6-1
6.1	Electrical and Communication Facilities.....	6-1
6.2	Education.....	6-1
6.3	Police Protection.....	6-1
6.4	Fire Protection.....	6-2
6.5	Medical Facilities/EMT.....	6-2
CHAPTER 7: CONFORMANCE WITH PLANS AND POLICIES		7-1
7.1	Hawai'i State Plan.....	7-1
7.2	State Land Use District.....	7-3
7.3	Chapter 344, State Environmental Policy.....	7-4
7.4	County of Kaua'i General Plan.....	7-4
7.5	County Zoning District.....	7-9
7.6	Development/Community Plan.....	7-9
7.7	Special Management Area.....	7-9
CHAPTER 8: AGENCY AND PUBLIC CONSULTATION		8-1
8.1	Pre-Assessment Consultation Efforts.....	8-1
8.2	Draft EA Comments.....	8-2
CHAPTER 9: FINDINGS AND DETERMINATION.....		9-1
9.1	Findings.....	9-1
9.2	Determination.....	9-5
CHAPTER 10: REFERENCES.....		10-1
Appendix A:	Photographs of Project Site and Surrounding Areas.....	A-1
Appendix B:	Consultation Efforts.....	B-1
Appendix C:	Archaeological Assessment.....	C-1
Appendix D:	Executive Order for Land Transfer.....	D-1

LIST OF FIGURES

Figure 1: Area Location Map.....	1-3
Figure 2: Kālepa Motocross Site	1-4
Figure 3: Wailuā Motocross Complex to Be Vacated	1-5
Figure 4: Līhu'e Planning District Land Use Map	1-8
Figure 5: NRCS Soil Survey Information	3-3
Figure 6: State Department of Health Maximum Permissible Noise Levels.....	3-12

LIST OF TABLES

Table 3-1: State of Hawai'i and National Ambient Air Quality Standards	3-8
--	-----

CHAPTER 1: INTRODUCTION

1.1 Purpose for Environmental Assessment

The Department of Parks and Recreation, County of Kaua'i is proposing the Kālepa Motocross Track Project. This project involves the design and construction of a new motocross park on land owned by the State of Hawai'i in Kālepa (see **Figure 1: Area Location Map** and **Figure 2: Kālepa Motocross Site**). This park will replace an existing motocross park in Wailuā that is incompatible with adjoining land uses (see **Figure 3: Wailuā Motocross Complex to Be Vacated**). This project is funded by the County of Kaua'i.

This Final Environmental Assessment (Final EA) addresses the potential impacts on the surrounding environment resulting from the construction and use of the new motocross park. This document was prepared in conformance to the regulatory and documentation requirements prescribed under Chapter 343, Environmental Impact Statements, Hawai'i Revised Statutes (HRS), otherwise referred to as the "Hawai'i Environmental Impact Statement Law," and Title 11, Chapter 200 (Environmental Impact Statement Rules) of the State Department of Health's Administrative Rules (HAR).

1.2 Project Background

Motocross is a motorcycle sport that involves racing on off-road tracks or trails. Most tracks are fully enclosed and good tracks utilize different obstacles, such as hills, slopes, and berms. Obstacles are made of dirt or clay or follow the natural topographic features of the site. Proper motocross track design must account for safety first as well as making the track challenging.

The Proposed Action seeks to replace the existing Wailuā Motocross Track facility with a new Kālepa Motocross Track to remedy disturbance from the existing motocross activities on sensitive land uses that are in close proximity. These include Nukoli'i Beach Park, Wailuā Golf Course, and resort properties. A more detailed description of the Proposed Action is found in **Section 2.1.2: Proposed Action**.

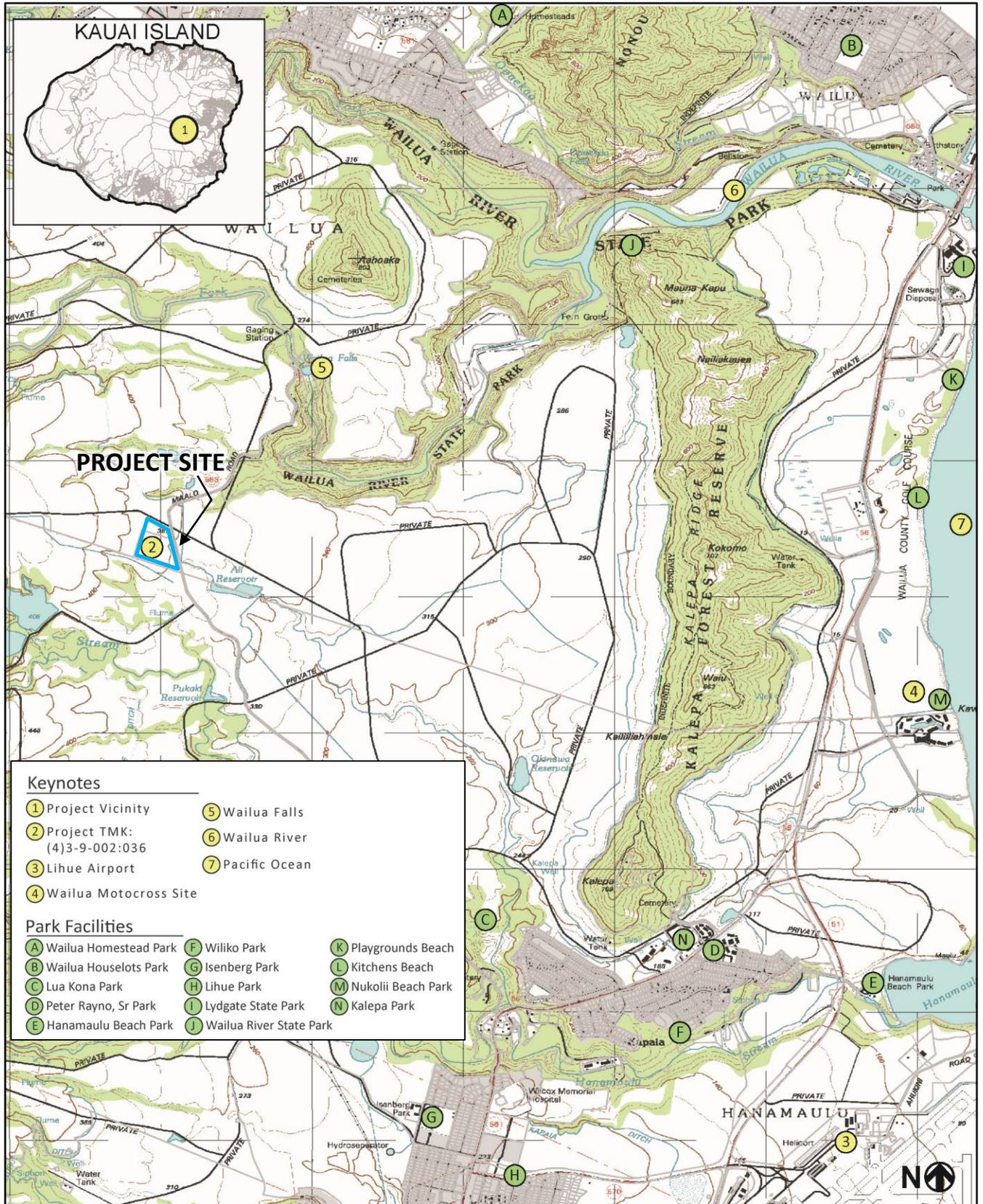
There are many motocross riders and enthusiasts living on Kaua'i of all ages. The existing Wailuā Motocross Track (sometimes referred to as "Kaua'i Motocross Track") is heavily used on weekends and holidays, but closed on weekdays. This facility is open year round and is operated by the Kaua'i Motocross Riders Association (KMRA), an organization with approximately 200 members. Approximately ten race days are held each year. The Wailuā Motocross Track is operated on Saturdays, Sundays and Holidays from 10 AM to 6 PM. It is open to club members (who pay club dues and a \$5 admission) or non-members (who pay \$25 admission). September, 2010 marked the 56th Anniversary of KMRA's annual Labor Day motocross race.

The Wailuā Motocross Track was developed in the late 1950s on 15 acres of a former Marine camp owned by the County of Kaua'i. It offers a 1.5-mile-long track for motocross and All Terrain Vehicle (ATV) use, along with a smaller track for Remote Control vehicles and a quarter-mile-long "pee-wee" (keiki) track. The dirt is mostly hardpack with sandy turns. There are a few

rocks on the flat terrain. The big jumps are an 80-foot tabletop, 120-foot King Kong ramp jump and four-set double section that is adjacent to the Outrigger Hotel. Amenities on the site include a registration booth, an announcer's tower, two portable toilets, a shave ice booth, a parking area, storage, and seating stands.

The County of Kaua'i Department of Parks and Recreation has been partnering with the non-profit Kaua'i Motocross Association, Inc. (KMXA) to plan for a new motocross track in Kālepa to replace the Wailuā Motocross Track. (The proposed facility has also been referred to as the "Wailuā Mauka" Track, but will be called the Kālepa Motocross Track in this Environmental Assessment to reduce potential confusion). KXMA will maintain and operate the new Kālepa Motocross Track, and will provide input on the eventual design of the facility. The project proposers will also coordinate with other non-profit motorcycle enthusiast groups, including KMRA, and the Combined Off-Road Riders of Kaua'i (CORK) who will provide input and design expertise.

The proposed action will provide a safe, family-oriented drug free recreational environment to encourage statewide or national amateur motocross and BMX racing competition. Increased land closures have left many with no alternative but to ride illegally on private or public lands. The new Kālepa Motocross Track will address this problem by providing a much-needed safe place to ride and structured activities for Kaua'i's youth.



Project Location and Vicinity Map

FIGURE 1

Kalepa Motocross Track
 County of Kaua'i, Department of Parks and Recreation

Source:
 USGS Delorme Topo-Quad Maps





Project Site Aerial Photo

Kalepa Motocross Track
 County of Kaua'i, Department of Parks and Recreation

FIGURE 2



Imagery Source: ESRI, i-cubed, USDA FSA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGP



Wailuā Motocross Complex To Be Vacated

Kalepa Motocross Track
 County of Kaua'i, Department of Parks and Recreation

FIGURE 3



Imagery Source: ESRI, i-cubed, USDA FSA, USGS, AEX, GeoEye, Getmapping, AeroGrid, IGP

1.3 Land Ownership

The Proposed Action is to be constructed on a parcel owned by the State of Hawaiʻi. The approximately 18-acre site is located along Māʻalo Road, north of the town of Līhuʻe, on the Island of Kauaʻi. The County plans to develop 14.8 acres of the 18-acre site into the new Kālepa Motocross Track. Access to the property will be provided by a single driveway from Māʻalo Road.

The land is located within the greater 6,700-acre Kālepa Agricultural project. The 18-acre parcel was dedicated to the County of Kauaʻi in 1999 by Executive Order from the Board of Land and Natural Resources for a set-aside area in Kālepa to relocate the existing motocross track from Marine Camp in Wailuā. A copy of the Executive Order is found in **Appendix D: Executive Order for Land Transfer**. The study site was set aside by the State of Hawaii Department of Land and Natural Resources for recreational purposes in 2001, and was subdivided from the larger parcel in 2003. The site is located at approximately 380-feet above mean sea level, and is bound to the east by Wailuā Falls Road (Māʻalo Road), to the south by a cane haul road on Grove Farm property and to the west and north by undeveloped agricultural lands, which are currently being used as cattle and horse pasturage.

1.4 Land Use Classifications and Designations

1.4.1 State Land Use Districts

Chapter 205, Hawaiʻi Revised Statutes (HRS), also known as the State Land Use Law, designates all lands within the State of Hawaiʻi into one of four categories: Agricultural, Conservation, Rural, and Urban. Permissible uses and standards are identified for each district. The project site for the Proposed Action is located within the Agriculture State Land Use District. Uses within this district are enforced and regulated by the counties, in this case the County of Kauaʻi. Because the motocross track will be less than 15 acres in size, oversight of this property as a part of the agricultural district will be under the jurisdiction of Kauaʻi County rather than the State Land Use Commission (LUC). Sites over 15 acres in size are governed by LUC regulations under HRS Section 205-4.5.

The existing Wailuā Motocross Track site is located within the Conservation State Land Use District, and pre-dates this designation. Conservation lands are comprised primarily of lands in existing forest and water reserve zones and include areas necessary for protecting watersheds and water sources, scenic and historic areas, parks, wilderness, open space, recreational areas, habitats of endemic plants, fish and wildlife, and all submerged lands seaward of the shoreline. The conservation District also includes lands subject to flooding and soil erosion. New developments within Conservation Districts require Conservation District Use Permits. Therefore, the Proposed Action will have a beneficial effect on land use by removing an incompatible use from the Conservation district.

1.4.2 County of Kauaʻi General Plan and Development Plans

The *County of Kauaʻi General Plan* was revised and adopted by the County in 2000 (adopted under Ordinance No. 753, November 30, 2000), and serves as a document providing guidance for land use regulations, locating and characteristics of new developments and facilities, and planning for County and State facilities and services (Planning Department, 2000).

The County of Kauaʻi is in turn subdivided into five development plan regions; both the site of the Proposed Action (Kālepa Motocross Site) and the existing motocross track (Wailuā Motocross Track), are located within the Līhuʻe Planning District. The Līhuʻe Planning District map designated the project site for the Proposed Action in Kālepa as “Agriculture.” **Figure 4: Līhuʻe Planning District** shows the site of the Proposed Action in relation to the Līhuʻe Planning District Map. The existing Wailuā Motocross Track site is classified as “Park.”

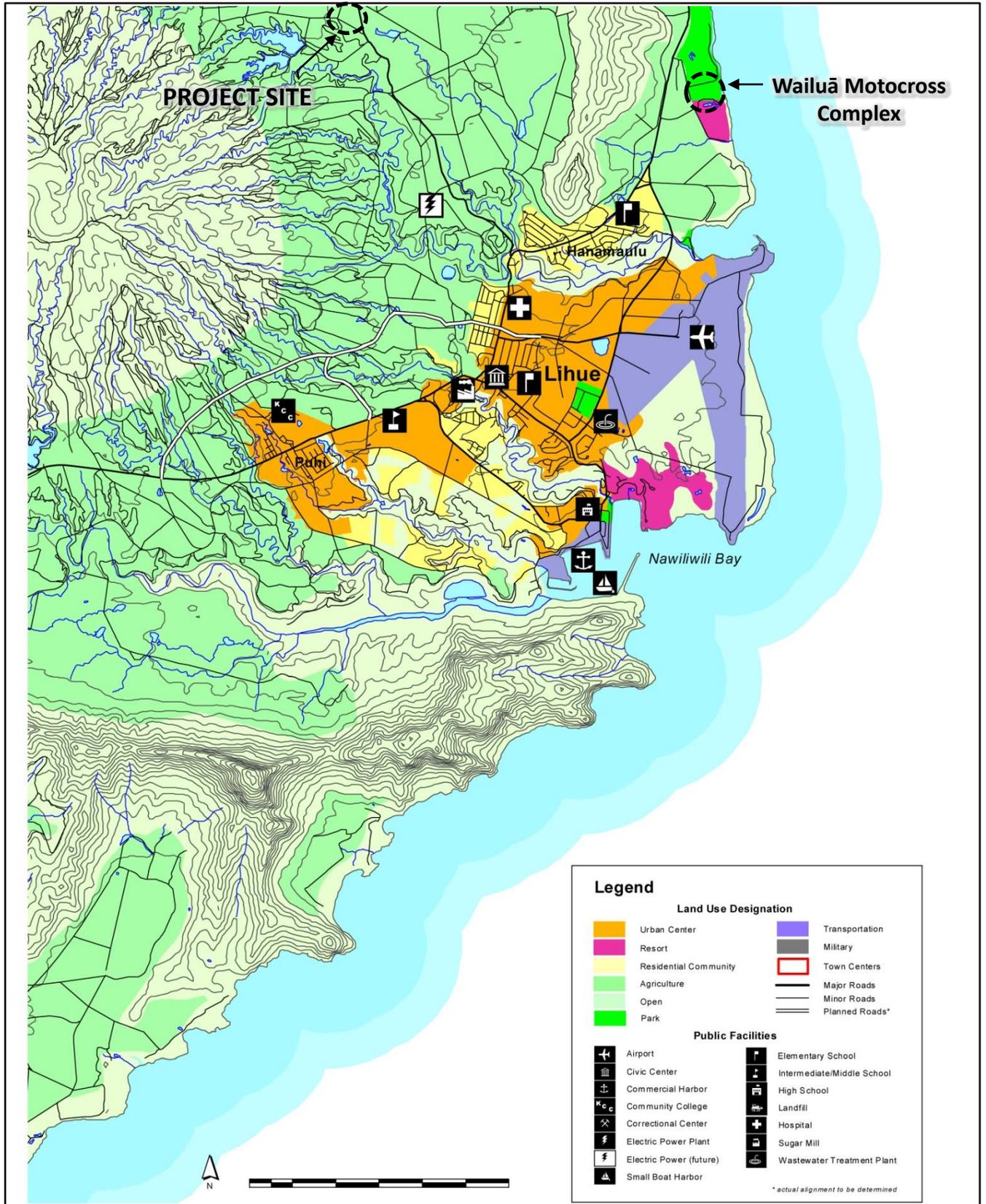
1.4.3 County Zoning Districts

Zoning in the County of Kauaʻi is regulated by Chapter 8, Comprehensive Zoning Ordinance, Kauai County Code. A review of the County of Kauaʻi Zoning designations was completed to identify the current zoning for the Proposed Action. The site of the Proposed Action is zoned for Agriculture and not located within any Special Treatment Districts. The existing Wailuā Motocross site is located within the State Conservation District and therefore does not have any zoning designation at the county level.

1.4.4 Special Management Area

Under Chapter 205A (Coastal Zone Management Act) of the Hawaiʻi Revised Statutes, the County is given authorization to regulate land uses located within the established Special Management Area (SMA) for the island. New developments within the SMA require additional permitting. Review of Kauaʻi’s SMA rules and maps determined that the project site for the Kālepa Motocross Track under the Proposed Action is located outside of the SMA.

The existing Wailuā Motocross Track site is located within the SMA, and pre-dates the SMA designation of the area. Therefore, the proposed project will have a beneficial effect on land use by removing an incompatible use from the Special Management Area.



Līhu'e Planning District Land Use Map

Kalepa Motocross Track
 County of Kaua'i, Department of Parks and Recreation

FIGURE 4



Source:
 County of Kaua'i General Plan (2000)

CHAPTER 2: PROJECT DESCRIPTION

2.1 Project Alternatives

Two alternatives were considered in the Draft Environmental Assessment, a No-Build Alternative, and the Proposed Action, which would construct a new motocross facility in Kālepa and close the Wailuā Motocross Complex.

2.1.1 No-Build

The No-Build Alternative would leave the existing Wailuā Motocross facility continuing to operate for the foreseeable future. The Kālepa site would remain unused, despite the previous transfer of land from the DLNR to the County of Kaua'i for the intended motocross track development. Impacts from noise and dust on sensitive nearby land uses that are associated with the No-Build Alternative would continue. Marine Camp Road, an unpaved road that provides access to the Wailuā Motocross Complex from Kūhiō Highway, also provides direct uncontrolled vehicular access to Nukoli'i Beach Park, and this situation would continue as well.

During the Cultural Impact Assessment performed for this project, (see **Section 3.8: Cultural Impact Assessment**) local residents noted that there is informal motocross racing on Kālepa Ridge and Mauna Kapu (a prominent landform on the south side of the Wailuā River with biological and cultural sensitivity). These activities could create erosion in these environmentally and culturally sensitive areas. It is assumed that these activities would continue under the No-Build Alternative.

The No-Build Alternative would not address the Purpose and Need for this project.

2.1.2 Proposed Action

The proposed action is to develop a new 14.8-acre motocross and BMX track complex located within the Līhu'e District of the Island of Kaua'i. This new facility will be owned by the Department of Parks and Recreation, Parks Division. The County of Kaua'i Department of Parks and Recreation has been partnering with the non-profit Kaua'i Motocross Association, Inc. (KMXA) to plan for the new motocross track. The proposed plan will provide a safe, family oriented, drug-free recreational environment to encourage statewide or national amateur motocross and BMX competition.

As part of a Memorandum of Understanding between KXMA and the County of Kauai, KXMA will be granted exclusive access to the new site, and will maintain and operate the park in accordance with KXMA bylaws and rules and regulations. KMXA will be responsible for maintaining liability insurance for the facility and to include the County as an additional insured party. The track will meet minimum requirements for safe track design of the American Motorcyclist Association (AMA) and will be designed by a certified track designer approved by the AMA. For additional safety and riding guidelines each participating rider will be required to follow KMXA's rules and regulations.

Membership to the AMA will be actively pursued, which will provide opportunities for members to receive contingency winnings from manufacturers and possible sponsorships. AMA sanctioning will also allow riders to qualify for national events.

Revenue will come from annual membership dues, spectator and rider entry fees, vendor and food sales during events, business advertising, sponsorship, and other grants available.

Open practice will be held on weekends and holidays, and if possible one to two weekdays. Track hours are expected to be similar to those at the current Wailuā Motocross Track facility, which are 10 AM to 6 PM. Events will include monthly races, motocross instruction schools, exhibitions by professional riders, and other special events. A national safety program will be adopted. Drug prevention education will be provided and incorporated with safety training classes in addition to race activities and motocross instruction schools.

Ideas for the park include an outdoor natural terrain style motocross track, a BMX track and a mini keiki track that will also accommodate BMX. Other types of tracks may be possible if space permits. A track which is open with less obstacles and more gradual type jumps will attract many riders on the island who may not have a safe or legal place to ride.

KMXA has proposed the following phasing for construction and initial operations:

- PHASE 1: Clear brush, create green waste area, and secure water rights.
- PHASE 2: Construct entrance, secure area, extend irrigation ditch line, and create track layout design.
- PHASE 3: Start construction of main motocross track.
- PHASE 4: Start construction of keiki track, BMX track and announcer's tower.
- PHASE 5: Practice and races begin. Portable restrooms, temporary tents.
- PHASE 6: Start construction of grandstands, ultracross track and trials area.
- PHASE 7: Research potable water and permanent restroom facility.

Track design will be predicated on the existing topography, the needs of the riders, and maintenance concerns.

Under the Proposed Action, the existing Wailuā Motocross Complex, located next to Nukoli'i Beach Park would be closed.

2.2 Purpose and Need for the Proposed Action

The Proposed Action would fulfill the purpose and need for the project as follows:

- The existing Wailuā Motocross Complex is in close proximity to more sensitive land uses, specifically Nukoli'i Beach Park, Wailuā Golf Course, and resort properties that all border on the facility. By providing an alternative site and relocating the park to an undeveloped area, the new facility will mitigate these impacts.
- Marine Camp Road, an unpaved road that provides access to the Wailuā Motocross Complex from Kūhiō Highway, also provides direct vehicular access to Nukoli'i Beach Park, which has caused degradation of the beach habitat and potentially puts buried

archaeological resources at risk. By closing the Wailuā Motocross site, this roadway can be controlled

- Recent increases of land closures have left many motocross riders with no alternative but to ride illegally on private or public lands. This includes environmentally and culturally sensitive areas such as Kālepa Ridge and Mauna Kapu. A new Kālepa Motocross Track will provide a much needed safe place to ride and activities for the youth on Kauai.
- The Kālepa Motocross Track will be designed for safety and meet AMA requirements to provide a structured, safe facility for motocross activities.

CHAPTER 3: PHYSICAL AND BIOLOGICAL ENVIRONMENT

The Proposed Action is to construct a new motocross track at the site in Kālepa, to replace the existing Wailuā track adjacent to Nukoli'i Beach park. The chapter that follows seeks to identify the existing physical and biological environment at the new site, consider impacts of the Proposed Action, and identify mitigative measures that will be necessary to ensure that there are no significant impacts associated with the Proposed Action. Where appropriate, the conditions at the existing Wailuā Motocross Complex are identified to contrast the effects of the Proposed Action compared to doing nothing, the No-Build Action.

3.1 Climate

The island of Kaua'i has a total land area of about 553.3 square miles, and is the fourth largest island in the Hawaiian island chain. Climate on the island of Kaua'i, as well as within the State of Hawai'i, can be characterized as having low day-to-day and month-to-month variability. Differences in the climate of various areas are generally attributed to the island's geologic formation and topography creating miniature ecosystems ranging from tropical rain forests to dryer plains along with corresponding differences in temperature, humidity, wind, and rainfall over short distances (Dept. of Geography, 1998).

The climate of the project area is predominantly warm with moderate rainfall. The site of the Proposed Action for the Kālepa Motocross Track receives approximately 60 to 80 inches of rainfall annually. (Giambelluca et al., 1986). Widespread rainstorms, which account for much of the precipitation, occur most frequently during the wet season which extends from October through April (NOAA, 2000).

Temperatures in the Līhu'e area have average annual monthly temperatures ranging between 72 and 84 degrees (Fahrenheit) with an average annual temperature of 78.9 degrees. The low-variability temperatures are associated with the mid-ocean location of the island and to the small seasonal variation in the amount of energy received from the sun. The range in normal temperatures for the island of Kaua'i from the coolest month, February, to the warmest month, August, is less than 8 degrees.

Relative humidity is typically at 78 percent with highs of 82 percent during January and lows of 75 percent during June. Humidity is moderate to high in all seasons and slightly higher in the wet season than in the dry. However, even during periods when the temperature and humidity are both high, the weather is seldom oppressive. This is due to year-round trade winds which provide a system of natural ventilation during most of each year (NOAA, 2000).

The predominant surface wind occurring in the Līhu'e area is the prevailing trade winds from the northeast direction which usually dominate from April to November. Winds from the south are infrequent, occurring only a few days a year and mostly in the winter associated with "Kona" storms. Wind speeds in this area are predominantly in the 13 to 24 miles per hour range for much of the time (Dept. of Geography, 1998).

3.2 Soils and Topography

The island of Kaua'i consists of a single great shield volcano that is deeply eroded and partly veneered with much later volcanic activity. The Kaua'i shield has a volume of about 4,200 cubic kilometers and rises 5,100 meters above the surrounding sea floor (Macdonald, Abbot, and Peterson, 1983).

The site of the Proposed Action is situated on the eastern end of the island and is approximately three miles inland from the shoreline within the Līhu'e basin. The Līhu'e basin is bounded by the Hā'upu Mountains to the south, Wai'ale'ale to the west, and the Makaleha Mountains to the north. The dissected valley of the south branch of the Wailuā River is northeast of the project area, and Wailuā Falls is located less than one mile northeast. The Wailuā River and its tributaries comprise the major drainage system for the central area of the Līhu'e basin.

The overall topography of the site of the Proposed Action is nearly level. Typical slopes of the project area ranges between 0 to 3 percent near the project site. Within the project site, elevations range between about 380 and 400 feet above mean sea level (msl).

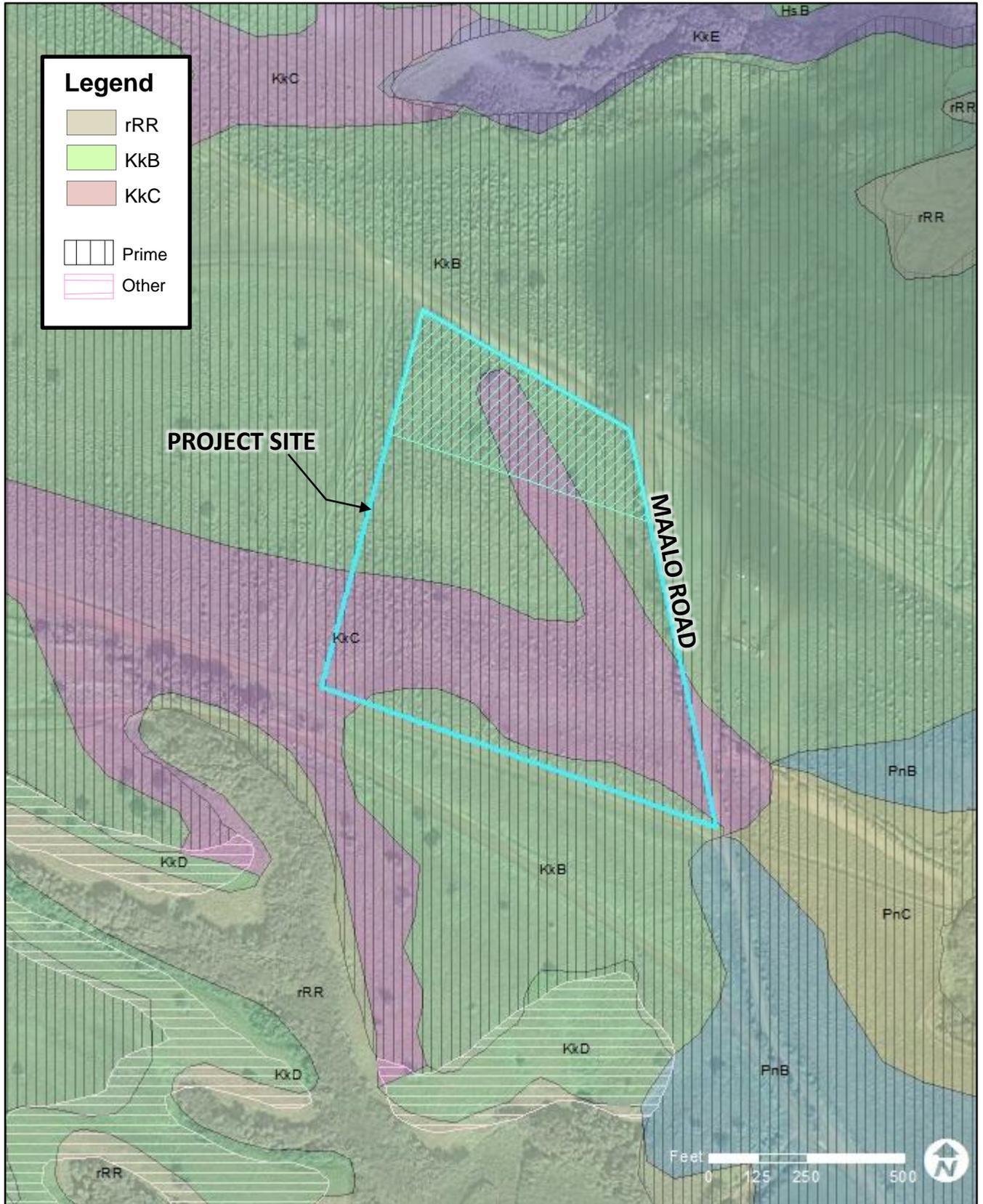
The existing motocross site in Wailuā is located immediately adjacent to Nukoli'i Beach Park, between about 300 and 1,600 feet from the shoreline and is less than 20 feet above msl.

3.2.1 Existing Conditions

In its Pre-Assessment comments on the project, the Natural Resources Conservation Service (NRCS) notes that there are two soil map units at the site of the Proposed Action, Kapa'a silty clay, 3-8% slopes (KkB) and Kapa'a silty clay, 8-5% slopes (KkC). Both of these units are classified as Prime Farmlands. No hydric soils are located in the project area. Hydric soils identify potential areas of wetlands. The NRCS mapping of the site provided by the agency is found in **Figure 5: NRCS Soil Survey Information**.

3.2.1.1 Agricultural Lands

The Hawai'i State Department of Agriculture and NRCS have established a classification system, Agricultural Lands of Importance to the State of Hawai'i (ALISH) in the interest of protecting agriculturally important lands. Three classes of agriculturally important lands were established for the State of Hawai'i with the intent of facilitating the NRCS effort to inventory prime farmlands nationally and adapting the classification to the types of agricultural activity in Hawai'i.



NRCS Soil Survey Map with ALISH

FIGURE 5

Kalepa Motocross Track
 County of Kaua'i, Department of Parks and Recreation

Source: **SSFM** INTERNATIONAL
 ALISH, State Department of Agriculture (1977)
 Natural Resources Conservation Service (2007)

The ALISH classes are:

- Prime Agricultural Land is land best suited for the production of food, feed, forage and fiber crops.
- Unique Agricultural Land is land other than prime agricultural land and is used for the production of specific high-value food crops.
- Other important agricultural land is land other than prime or unique agricultural land that is of state-wide or local importance for the production of food, feed, fiber and forage crops. These lands are important to agriculture in Hawai'i yet they exhibit properties that exclude them from the prime or unique agricultural land classifications.

The designation of ALISH lands considers soil types, agricultural capability, and current land use. The objective is to provide decision makers with an awareness of the long-term implications of various land use options for production of food, feed, forage, and fiber crops in Hawai'i. All 18 acres proposed for use under the Proposed Action are classified as ALISH lands because they are Prime Farmland.

As part of state Land Use law, the Land Study Bureau of the University of Hawai'i prepared an inventory and evaluation of the State's land resources during the 1960's and 1970's. Agricultural productivity and the ability to grow selected alternative crops were assessed based on soil properties, topography, climate and other factors. A five-class productivity rating system was developed with "A" representing the class of highest productivity and "E" the lowest." The entire site of the proposed action is classified as "C," which means it is ranked in the middle of the general range of expected productivity.

3.2.2 Project Impacts on Soils and Topography

No-Build Alternative

The No-Build will have no direct effect on soils or topography as there would be no new motocross track constructed.

Proposed Action

The Proposed Action will result in some modification of topography on the site to design a motocross facility that suits the needs of riders. In its pre-assessment comments on the Proposed Action, NRCS noted it has no specific interpretation related to the soils on the site and their ability to serve a motocross facility. NRCS notes that Off-Road Motorcycle Trails and Vehicle Trafficability (Type 1, 50-passes, wet season), that appear to most closely replicate the conditions that will likely be created by the proposed project. Ratings for the soils in the project area for these given uses are "somewhat limited" and "fair" respectively. These ratings do not preclude the intended land use, however they do identify potential limitations for the use, which may require corrective measures, increase costs, and/or require continued maintenance.

Under the Proposed Action, short-term impacts would be associated with construction activities conducted for the project. This would include development of motocross tracks along with construction of additional amenities such as the parking lot and associated facilities.

Processes included in the development of the site would be clearing and grubbing activities to remove vegetation on the surface to about eight inches below the surface in order to remove vegetation, roots and rocks on the site. Very little of the site will have impervious surface. Grading will allow storm water to sheet flow from the site and discharge runoff following existing drainage patterns. Complying with County standards, storm water runoff should not increase due to development of the site.

3.3 Natural Hazards

This section addresses only those natural hazards applicable to the site of the Proposed Action in Kālepa as well as the existing site in Wailuā. Of the potential natural hazards, only earthquakes, hurricane, and flooding hazards are applicable. These natural hazards are addressed below.

3.3.1 Existing Conditions

3.3.1.1 Earthquakes

Both the site of the Proposed Action in Kālepa and the existing Wailuā Motocross Complex could be potentially affected by earthquakes. Although difficult to predict, an earthquake of sufficient magnitude causing structural or other property damage may occur in the future. However, except for the Island of Hawai'i, the Hawaiian Islands are not situated in a high seismic area subject to numerous earthquakes (Macdonald et al., 1983). Most of the earthquakes that have occurred in the past have been volcanic earthquakes causing little or no damage.

Earthquakes in the Hawaiian Islands are primarily associated with volcanic eruptions from the inflation or shrinkage of magma reservoirs beneath which segments of the volcano shift (Macdonald et al., 1983). Kaua'i is periodically subject to episodes of seismic activity of varying intensity. Available historical data indicates that the number of major earthquakes occurring on Kaua'i have generally been fewer and of lower magnitude than those on other islands such as Hawai'i (State of Hawai'i DBEDT 2010, Furumoto, et al., 1973). However, earthquakes cannot be avoided or predicted with any degree of certainty, and an earthquake of sufficient magnitude (greater than Magnitude 5) may cause damage.

3.3.1.2 Hurricanes

Both the site of the Proposed Action in Kālepa and the existing Wailuā Motocross Complex could be potentially affected by hurricanes. The three major elements that make a hurricane hazardous are: 1) strong winds and gusts, 2) large waves and storm surges, and 3) heavy rainfall (FEMA, 1993). A hazard mitigation report prepared by the Federal Emergency Management Agency after Hurricane 'Iniki in 1992 determined that nine hurricanes approached within 300 nautical miles (about one day's travel time) of the Hawaiian Islands' coastlines between 1970

and 1992 (FEMA, 1993). Most hurricanes affecting the Hawaiian Islands have focused on Kaua'i. Based upon a tracking of hurricanes since 1950, there appears to be no geographical or meteorological reasons why hurricanes miss other islands and tend to steer toward Kaua'i (FEMA, 1993).

3.3.1.3 Flooding

The entire site of the Proposed Action in Kālepa, according to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM), is located in Flood Zone X. The Flood Insurance Program does not have any regulations for developments within Flood Zone X. Therefore, there are no floodplains on the project site.

While some wet areas were observed during a January 8, 2009 field visit (which is the wet season for this area), they do not constitute streams or wetlands as defined by state and federal agencies. The water observed on the site drains to a narrow ditch that parallels Mā'alo Road. This ditch is discontinuous and does not appear to be currently maintained.

Virtually all of the existing Wailuā Motocross Complex site is outside of the threat of flooding according to FIRM mapping and is classified as Flood Zone X. A wooded area on the site's periphery adjacent to Nukoli'i Beach park (which is not used for motocross activities) is the only identified flood zone (Zone VE). Zone VE has a 1-percent-annual-chance flood event due to storm-induced velocity wave action.

3.3.1.4 Tsunami

The Proposed Action's Kālepa Motocross site is at an elevation of about 380 to 400 feet above sea level and about three miles inland, far outside of the tsunami inundation zone.

Any major tsunami can subject the entire eastern coast of Kaua'i to severe damage which includes potentially damaging the existing Wailuā Motocross Complex, which is less than 20 feet in elevation above sea level. If still in operation, the complex would be closed in the event of a tsunami warning. While mapping from Kaua'i County Civil Defense does not show the area around Nukoli'i Beach Park as being within the tsunami evacuation zone based on historic strikes of tsunamis in the past, the low elevation of the area would still put people at risk in the event of a tsunami event.

3.3.2 Project Impacts from Natural Hazards

3.3.2.1 Earthquakes

Although the possibility of earthquakes on Kaua'i is moderately low, potential damage to the motocross facilities may occur from an earthquake of sufficient magnitude. However, damages to the new motocross track and accessory structures under either the No-Build Alternative or Proposed Action would be minimal. Under the Proposed Action, there would be minimal above-ground structures on the site, and furthermore, for any structure that could be affected by earthquakes, appropriate County building code standards will be followed. Thus, the risk of potential damage to this project will be no greater than that of similar homes, businesses, and other facilities on the island of Kaua'i.

3.3.2.2 Hurricanes

A hurricane of significant strength and high winds passing close to the island could cause damages to the Proposed Action in Kālepa as well as potentially affect the existing facility in Wailuā. The Kālepa site is located several miles inland, reducing the chances of hurricane damage compared to the No-Build site in Wailuā, which is in close proximity to the shoreline and would potentially take a “direct hit” if a hurricane struck the area. Under the Proposed Action, any above-ground structures would be composed of suitable materials and designed to comply with County building code requirements minimizing its susceptibility to structural damage in the event of a hurricane.

3.3.2.3 Flooding

The site of the Proposed Action in Kālepa is not anticipated to be impacted by floods.

Under the No-Build Alternative, the existing Wailuā Motocross Complex could be potentially affected by flooding, although there are no project site amenities located within the most flood-prone area of the site, which could be affected by storm-induced wave action. The Wailuā Motocross Track is closed during extreme conditions.

3.3.2.4 Tsunami

While the Proposed Action’s Kālepa Motocross site is outside of the tsunami inundation zone, the existing Wailuā Motocross Complex is within the tsunami inundation zone. Any major tsunami can subject the entire eastern coast of Kaua’i to severe damage which includes potentially damaging Wailuā Motocross Complex under the No-Build Alternative. Evacuations of the tsunami zone by county and state authorities during a tsunami warning minimize the chance of loss of life.

3.4 Air Quality

National ambient air quality standards (NAAQS) have been established by the U.S. Environmental Protection Agency (EPA) that set standards for six criteria pollutants: carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, ozone, and concentrations of particulate matter less than 10 microns (PM₁₀) and 2.5 microns (PM_{2.5}). Since 2003, the State began participating in the National PM_{2.5} speciation monitoring program. In addition, a State standard has been established for hydrogen sulfide. State ambient air quality standards are more stringent than the comparable national limits (NAAQS) except for the standards for sulfur dioxide, particulate matter and lead, which are set at the same levels. A summary of both State and National AAQS is presented in **Table 3-1: State of Hawai'i and National Ambient Air Quality Standards**.

Table 3-1: State of Hawai'i and National Ambient Air Quality Standards

Pollutant	Units	Averaging Time	Maximum Allowable Concentration		
			National Primary	National Secondary	State of Hawaii
Particulate Matter <10 microns (PM ₁₀)	µg/m ³	Annual 24 Hours	- 150 ^a	- 150 ^a	50 150 ^b
Particulate Matter <2.5 microns (PM _{2.5})	µg/m ³	Annual 24 Hours	15 ^c 35 ^d	15 ^c 35 ^d	- -
Sulfur Dioxide	µg/m ³	Annual 24 Hours	80 365 ^b	- -	80 365 ^b
		3 Hours	-	1300 ^b	1300 ^b
Nitrogen Dioxide	µg/m ³	Annual 1 Hour	100 189 ^d	100 -	70 -
		8 Hours 1 Hour	10 ^b 40 ^b	- -	5 ^b 10 ^b
Ozone	µg/m ³	8 Hours 1 Hour	157 ^e 235 ^f	157 ^e 235 ^f	157 ^e -
		3 Months Quarter	0.15 ^g 1.5 ^h	0.15 ^g 1.5 ^h	- 1.5 ^h
Hydrogen Sulfide	µg/m ³	1 Hour	-	-	35 ^b

Notes:

^aNot to be exceeded more than once per year on average over three years.

^bNot to be exceeded more than once per year.

^cThree-year average of the weighted annual arithmetic mean.

^d98th percentile value averaged over three years.

^eThree-year average of fourth-highest daily 8-hour maximum.

^fStandard is attained when the expected number of exceedances is less than or equal to 1.

^gRolling 3-month average.

^hQuarterly average.

Hawai'i's standards are not divided into primary and secondary standards as are the National standards. Primary standards are intended to protect public health with an adequate margin of safety while secondary standards are intended to protect public welfare through the prevention of adverse effects to soils, water, vegetation, man-made materials, animals, wildlife, visibility, climate, and economic values. Air quality in Hawai'i is generally characterized as relatively clean and low in pollution. Northeast trade winds that are predominant throughout the year typically carry emissions and other air pollutants from inland areas out toward the ocean.

3.4.1 Existing Conditions

The State Department of Health (DOH) currently does not currently maintain an air monitoring station on Kaua'i. (State of Hawai'i Department of Health, 2010b.) A monitoring station that formerly monitored particulates was located in downtown Līhu'e in a commercial and residential area with nearby agricultural areas. That station was closed in January, 2007. In the past, there were no occurrences of PM₁₀ greater than the National or State standards.

The DOH has proposed a new monitoring station in the residential community of Niumalu to measure cruise ship emissions a mile downwind of Nāwiliwili Harbor. This Special Purpose Monitoring Station will measure pollutants of interest related to cruise ship emissions, which are CO, SO₂, and PM_{2.5}. (State of Hawai'i Department of Health, 2010a.)

3.4.2 Project Impacts on Air Quality

No-Build Alternative

The No-Build Alternative will continue to have air emissions at the existing Wailuā Motocross Complex as it does today. Air impacts include two sources. First, emissions from fugitive dust come from motorcycle trails, which consist of bare dirt. In addition, modest amounts of emissions come from the motorcycles themselves. These emissions would continue into the future.

Proposed Action

Potential air impacts associated with the Proposed Action would mainly be associated with:

- Short-term construction activities
- Post-construction motocross activities

Short-Term Construction Impacts

Under the Proposed Action, impacts on ambient air quality associated with this project would primarily be limited to short-term construction activities. Once completed, there would essentially be no activities occurring within the new motocross site that would generate significant amounts of air pollutants exceeding State or National standards. Furthermore, construction of this new facility would not generate additional vehicular traffic to a level that may significantly increase carbon monoxide emissions in the area.

Short-term and minor impacts on air quality from construction activities would predominantly be associated with fugitive dust emissions and exhaust emissions from on-site construction equipment. Fugitive dust emissions would generally arise from clearing, grading, and other dirt

moving activities associated with site clearing and ground preparation for the new motocross track and accessory improvements.

Impacts from such construction activities would be temporary and should not result in a significant impact on air quality or result in State or National ambient air quality standards being exceeded. Nevertheless, minor impacts associated with fugitive dust emissions would be mitigated through the implementation of a dust control plan. Construction scheduling combined with dust control measures would minimize air quality impacts such that the least number of surrounding properties are affected by work activities.

Post-Construction Motocross Activities

Under the Proposed Action, there are two types of air impacts that could be created from the new Kālepa Motocross Track. Emissions from fugitive dust are possible from motorcycle trails, which will consist of bare dirt. In addition, there will be modest amounts of emissions from the motorcycles themselves.

3.4.3 Mitigation of Air Quality Impacts

Short-Term Construction Impacts

State air pollution controls prescribed under the Department of Health's (DOH) rules (Chapter 11-59, HAR "Ambient Air Quality Standards" and Chapter 11-60.1, HAR "Air Pollution Control") prohibit visible emissions of fugitive dust from construction activities at the property line. Therefore, a dust control plan would be prepared and implemented to have the contractor comply with these regulations. Adequate fugitive dust control can usually be accomplished by establishing a frequent watering program or implementing other measures to address grubbing and grading activities. Some measures that could be considered during the project's design for implementation by the contractor may include:

1. Limiting the areas that are disturbed at any given time;
2. Applying chemical soil stabilizers, mulching, or using wind screens;
3. Establishing a road cleaning or tire washing program to reduce fugitive dust emissions from trucks using paved roadways in or around the project site; and
4. Establishing landscaping early in the construction schedule to control dust.

In addition to these possible measures, fabric dust barriers would be put up around construction areas to further minimize the effects of fugitive dust emissions on surrounding properties. These dust barriers would have a minimum height of 12 feet, and will be installed in conformance with State construction specifications.

Temporary on-site mobile and stationary construction equipment would also emit air pollutants from engine exhausts. Minor nitrogen dioxide emissions from construction equipment should not violate stricter State standards since such emissions would be short-term and the standards are set on an annual basis. Short-term carbon monoxide emissions from construction equipment would similarly be low and should be relatively insignificant.

Impacts from slow-moving construction vehicles would be mitigated by scheduling slow-moving vehicular travel during periods of low traffic volume on the affected roadways. Engine exhaust emissions from construction vehicles will be minimized via the proper operation and maintenance of all equipment to further limit potential air quality impacts. The fabric dust barriers installed around the construction area would further mitigate the short-term effects and nuisances associated with these other air pollutant emissions.

Post-Construction Motocross Activities

Under the Proposed Action, emissions from fugitive dust are not anticipated to warrant any special mitigation given that the region receives ample rainfall (about 60 to 80 inches annually) and therefore motocross trails will raise minimal entrained dust. Motocross clubs will ensure that all motorcycles are maintained with legally-required emissions controls.

3.5 Noise

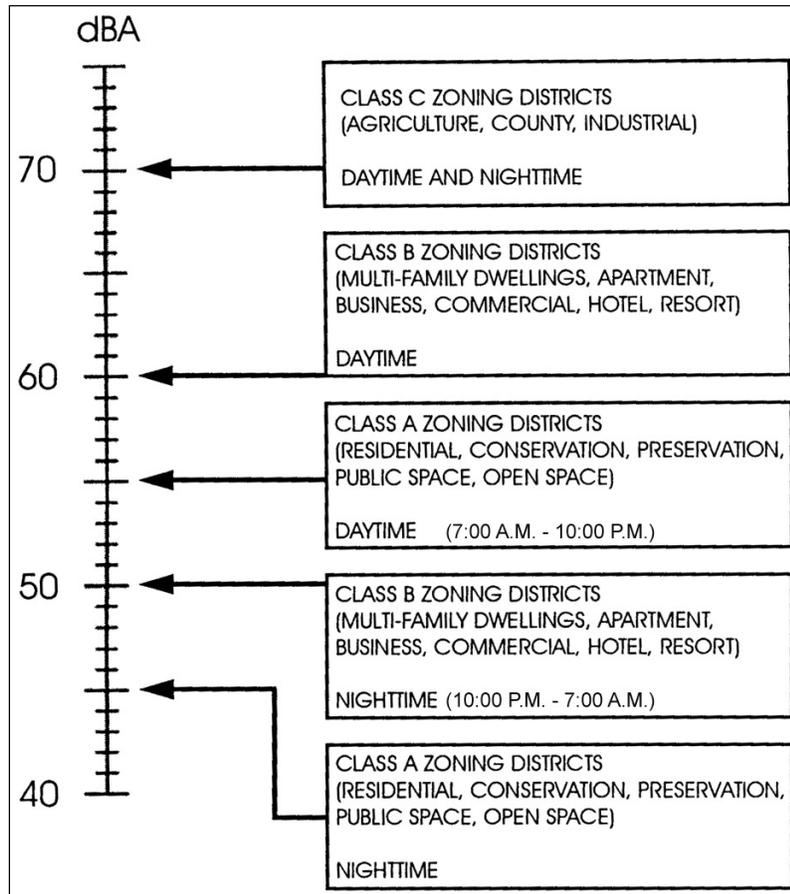
Noise is defined as excessive or unwanted sound. Sound intensity is measured in decibels (dB), based on a logarithmic scale. When sound is described in terms of the frequencies humans are capable of hearing, the term 'dBA' is used.

In Title 11, Chapter 46 of the State Department of Health's (DOH) Administrative Rules, three classes of zoning districts are identified for the purposes of regulating noise impacts. 11 HAR 46 also specifies corresponding maximum permissible sound levels due to stationary noise sources (building ventilation), and from on-site vehicles related to agricultural, construction, and industrial activities. DOH does not regulate noise levels other than stationary sources, agricultural, construction, or industrial activities. Therefore, there are no regulations overseeing motocross activities. The DOH regulates noise from on-site vehicles by requiring proper mufflers and preventing alterations that could increase noise emissions.

These levels are enforced for any location at or beyond the property line and shall not be exceeded for more than 10 percent of the time during any 20-minute period.

The noise limits which apply are a function of the zoning and time of day. As shown in **Figure 6: State Department of Health Maximum Permissible Noise Levels**, the maximum noise level from stationary sources, agricultural, construction, and industrial activities for an agricultural-zoned area is 70 dBA. This applies to both daytime and nighttime hours.

Figure 6: State Department of Health Maximum Permissible Noise Levels



Source; Hawai'i Department of Health

3.5.1 Existing Conditions

The current motocross facility in Wailuā is in close proximity to Nukoli'i Beach Park, the Wailuā Golf Course and several resort properties. Therefore, noise from motocross activities, which take place on weekends, already creates impacts to adjoining properties. The site of the Proposed Action has little in the way of existing noise other than roadway noise and potential impacts from nearby agricultural operations. There are few noise receivers such as residences that would be sensitive to noise in close proximity to the Proposed Kālepa Motocross Track.

3.5.2 Project Impacts on Noise

No-Build Alternative

The No-Build Alternative already has an adverse noise impact on sensitive areas. Motorcycle noise from the current motocross facility in Wailuā already impacts the nearby Nukoli'i Beach Park and several resort properties. These impacts will continue in the future under the No-Build Alternative.

Proposed Action

Potential noise impacts associated with the Proposed Action would mainly be associated with:

- Short-term construction activities.
- Post-construction motocross activities

Short-term Construction Activities

Noise from construction activities are regulated under Title 11, Chapter 46 (Community Noise Control) of the State DOH's Administrative Rules. Under these regulations, the project site is situated within the Agricultural zoning district (Class C). Therefore, the maximum permissible sound level for construction activities is 70 dBA during daytime and nighttime hours. This level may not be exceeded at or beyond the property line for more than 10 percent of any continuous 20-minute period.

Construction-related activities will temporarily increase ambient noise levels within the vicinity of the work area. Potential noise sources will include construction vehicles, trenching work, and other power equipment. Measures to control construction noise include the use of mufflers on power equipment and vehicles. All construction-related vehicles traveling on the roadways must also meet the vehicle noise level requirements set by the DOH.

With mitigation, construction activities are not expected to result in a significant impact, particularly given the lack of nearby noise receivers.

Post-Construction Motocross Activities

The operations of the Kālepa Motocross Track are expected to create noise from the motorcycles themselves. The Kālepa Motocross Track would only be used on weekends. Hours of use would be expected to be similar to the hours of use at the current Wailuā Motocross Facility, which are 10 AM to 6 PM. Because the facility will be located in an undeveloped agricultural area far from nearby noise receivers, the noise impacts are anticipated to not be significant in their effect.

The Proposed Action will have a beneficial impact on sensitive areas by eliminating motorcycle noise from the current motocross facility in Wailuā, which is in close proximity to Nukoli'i Beach Park and several resort properties.

3.5.3 Mitigation of Noise Impacts

If necessary, a construction noise permit would be obtained from the State DOH to allow these activities. Specific permit restrictions for construction activities are:

1. No permit shall allow construction activities creating excessive noise before 7:00 a.m. and after 6:00 p.m. of the same day.
2. No permit shall allow construction activities that create excessive noise before 9:00 a.m. and after 6:00 p.m. on Saturdays.
3. No permit shall allow construction activities which exceed the allowable noise levels on Sundays and on holidays.

The Motocross clubs using the facility will be expected to require users to have all standard noise control equipment on their motorcycles.

3.6 Visual Resources

3.6.1 Existing Conditions

The County of Kauaʻi General Plan (2000) identifies important landforms that have ecological, recreational, cultural, and scenic value. This includes landforms such as mountains, hills, stream valleys and gulches, and high cliffs and bluffs. These important landforms are identified in the Līhuʻe Planning District Heritage Resources Map. Māʻalo Road is considered a “Scenic Roadway Corridor.” The Proposed Kālepa Motocross Track would be visible from and get access off of Māʻalo Road.

The existing Wailuā Motocross facility is located adjacent to Nukoliʻi Beach Park, a visually sensitive area.

During the Cultural Impact Assessment performed for this project, (see **Section 3.8: Cultural Impact Assessment**) local residents noted that there is informal motocross racing on Kālepa Ridge and Mauna Kapu (a prominent landform on the south side of the Wailuā River with biological and cultural sensitivity). These activities could create erosion in these sensitive areas that would continue under the No-Build Alternative. These areas are also visually sensitive resources identified in the General Plan’s Heritage Resources map as well.

3.6.2 Project Impacts on Visual Resources

No-Build Alternative

The No-Build Alternative would have no direct effect on visual resources, as there would be no construction or operation of a motocross track. Since Māʻalo Road is considered a “Scenic Roadway Corridor,” the No-Build Alternative would avoid introducing a new built element into the visual landscape in this area.

However, the No-Build Alternative would maintain existing activities that currently have an adverse visual effect on the landscape. Motocross activity would continue at the Wailuā Motocross Complex near Nukoliʻi Beach Park. Motocross activity would also continue on Kālepa Ridge and Mauna Kapu.

Proposed Action

Development of the project is not expected to have significant impacts on existing visual resources. While the surrounding area is relatively undeveloped, the site does not currently reflect a natural landscape, but rather is agricultural property that has been used for cultivation of crops or pasturage in the past and currently contains exclusively non-native vegetation. However, if not mitigated properly, the project would be expected to introduce some adverse visual elements to the Māʻalo Road corridor, which has been recognized as a “Scenic Roadway Corridor” by the County.

There are some anticipated aesthetic benefits associated with the Proposed Action. A new Kālepa Motocross Track would replace the Wailuā Motocross Complex near Nukoliʻi Beach Park, and also offer an alternative for motocross activity on Kālepa Ridge and Mauna Kapu.

3.6.3 Mitigation of Impacts on Visual Resources

One of the primary purposes of the project is to reduce the visual impact of motocross activity on the Nukoliʻi Beach Park, and the Proposed Action would provide that mitigation.

However, under the Proposed Action, a new motocross facility would be introduced into a relatively undeveloped landscape. Because Māʻalo Road is considered a “Scenic Roadway Corridor,” it will be important to pursue mitigation to reduce the visual effects. Planting of vegetation, use of visual barriers, or other measures should be pursued to minimize the visual impacts of the project on travelers using Māʻalo Road.

With proper visual treatment of the project site, the Proposed Action is not expected to have a significant negative effect on the visual character of surroundings.

3.7 Historic and Archaeological Resources

3.7.1 Existing Conditions

The Proposed Action constitutes a project requiring compliance with and review under State of Hawaiʻi historic preservation review legislation (Hawaiʻi Revised Statutes (HRS) Chapter 6E-8 and Hawaiʻi Administrative Rules (HAR) 13-3-275). An archaeological inventory survey investigation was made of the 18-acre project area, per the requirements of HAR Chapter 13-13-276. Because no historic properties were identified in the project area, this investigation is termed an archaeological assessment per HAR Chapter 13-13-275-5. This archaeological assessment report was prepared to support the proposed project’s historic preservation review and any other project-related historic preservation consultation. A copy of this assessment is included in **Appendix C: Archaeological Assessment**. The assessment was formally accepted by the State Historic Preservation Division (SHPD) in a letter dated July 24, 2009.

The following efforts were conducted for the Archaeological Assessment

1. Historical and previous archaeological background research to include study of archival sources, historic maps, Land Commission Awards and previous archaeological reports to construct a history of land use and to determine if archaeological sites have been recorded on or near this property.
2. Field inspection of the project area to identify any surface archaeological features and to investigate and assess the potential for impact to such sites. This assessment was to identify any sensitive areas that may require further investigation or mitigation before the project proceeds. Fieldwork was conducted on December 29, 2008.
3. Preparation of the Archaeological Assessment report to include the results of the historical research and the fieldwork with an assessment of archaeological potential based on that research, with recommendations for further archaeological work, if

appropriate. It will also provide mitigation recommendations if there are archaeologically sensitive areas that need to be taken into consideration.

No significant historic properties were identified within the current project area. Initially, a single potential historic property, a discontinuous earthen ditch, was identified along the west side of Māʻalo Road. The ditch was determined to be associated with drainage improvements to Māʻalo Road. The age of the ditch could not be conclusively established, and it was not considered a significant historic property. The ditch extends for approximately 329.0 meters along the west edge of Māʻalo Road, the eastern boundary of the study site. A section of the same ditch was observed along Māʻalo Road to south, beyond the current project area, indicating that previously the ditch ran continuously along the roadside.

The site of the Proposed Action and the surrounding locale has been highly disturbed by both historic and modern agricultural activity which likely destroyed any remnant surface pre-contact modifications that may have existed at one time. The decades of agricultural exploitation including sugarcane cultivation would have likely destroyed any potential subsurface cultural deposits as well. In addition, the construction and subsequent improvements of the adjacent Māʻalo Road, including activities such as grading and drainage improvements, would have removed any trace of any pre-existing historic properties.

3.7.2 Project Impacts on Historic and Archaeological Resources

No-Build Alternative

The No-Build Alternative would not create any direct impacts on historic or archaeological resources as there would be no construction. However, it would maintain the continued use of the existing motocross facility in Wailuā, which is adjacent to Nukoliʻi Beach Park. Since vehicles access the beach from the existing motocross facility, closure of this facility would help to prevent impacts on potential archaeological or historic resources close to the shoreline.

Proposed Action

No historic properties were identified within the 18-acre project area. Decades of previous cultivation have likely significantly impacted or destroyed any surface or subsurface historic properties that may have existed within the project area. Consequently, the effect recommendation for the Proposed Action is “no historic properties affected.”

3.7.3 Mitigation of Impacts on Historic and Archaeological Resources

No historic preservation mitigation measures are recommended for the Proposed Action. If, in the unlikely event that intact cultural resources are encountered during the course of development activities, all work in the immediate area should stop and SHPD/DLNR should be promptly notified.

3.8 Cultural Impact Assessment

Hawaiʻi’s Act 50 (2000) sought to “promote and protect cultural beliefs, practices, and resources of native Hawaiians and other ethnic groups” and requires the project proposers under Chapter 343 to consider cultural practices in a cultural impact assessment (CIA). To

ensure compliance with Act 50, a Cultural Impact Assessment (CIA) study was performed for this project. Coordination took place with the State Historic Preservation Division (SHPD), the Office of Hawaiian Affairs, the Kaua'i Historic Preservation Review Commission, and other agencies with regards to the CIA process. The discussion that follows is greatly summarized from the full assessment.

3.8.1 Existing Conditions

The project team attempted to contact Hawaiian and kama'āina cultural organizations, government agencies, and individuals who might have knowledge of and/or concerns about cultural resources and practices specifically related to the project area. These efforts included sending 29 consultation letters which contained information describing the archaeological inventory survey and requested any historical or cultural information known about the project area. In an attempt to follow up on the consultation letters, several telephone calls were made to each recipient. Sixteen people responded, two provided a short testimony and four kūpuna and/or kama'āina were interviewed for more in-depth contributions to the CIA.

3.8.2 Project Impacts on Cultural Resources

No-Build Alternative

The No-Build Alternative is not anticipated to result in any direct effects on traditional native Hawaiian cultural practices or other traditional cultural practices at the site of the Proposed Action as it would not result in any construction or motocross activities on that site. However, SHPD has noted the current dune area near Nukoli'i Beach Park where the existing Wailuā Motocross Complex is situated is more culturally significant (burials, etc). Furthermore, there is informal use of motocross racing on Kālepa Ridge and Mauna Kapu, which could create erosion. Therefore, the No-Build Alternative would potentially threaten these other resources in the future.

Proposed Action

The CIA process identified that there are many resources and cultural elements in the ahupua'a, where the Proposed Action is to take place. However, there is no known cultural and historic significance on the site itself due to past sugar cane cultivation in the project area. Some of the respondents stated that the project area should be kept for agricultural purposes.

The Proposed Action is not expected to significantly affect traditional native Hawaiian cultural practices or other traditional cultural practices occurring within the project site or surrounding area. There are currently no known cultural practices occurring within the project site based upon information provided by community consultation and background research. Temporary construction activities should similarly not restrict or prohibit access to surrounding areas that may possibly be used for traditional gathering or other cultural practices since it would be confined to the project site. The activities associated with the proposed motocross facility would also not restrict access to surrounding areas which may potentially be used for traditional native Hawaiian cultural practices.

3.8.3 Mitigation of Impacts on Cultural Resources

The CIA recommends that project proponents pursue proactive consultation with community members and cultural and lineal descendants with connections to the project area and the lands surrounding the project area to address concerns expressed in the CIA, which include a change of the cultural landscape and possible relocation of the Proposed Action to another location.

Although it is unlikely that there are burial sites (iwi kūpuna) or significant cultural and historic properties in the project area, if ancestral remains are found, cultural and lineal descendants of the area should be consulted in regard to burial treatment plans and that the remains be treated respectfully. Also, personnel involved in development activities should be informed of the possibility of inadvertent cultural finds, including human remains. Should cultural or burial sites be identified during ground disturbance, all work should immediately cease, and the appropriate agencies notified pursuant to applicable law.

3.9 Botanical Resources

3.9.1 Existing Conditions

The 18-acre project site for the proposed action is fallow agricultural land that supported cultivation and/or pasturage in the past. The vegetation found on the site can best be described as savannah: grassland which is dominated by Guinea grass (*Urochloa maxima*), with scattered trees, mostly albizia (*Falcataria moluccana*) and Java plum (*Syzygium cumini*). At the time of a field visit (performed in January, 2009), cleared paths that were presumably made by field surveyors crisscrossed the site. A total of 35 species were identified, all of which are introduced (non-native species) and many considered opportunistic weeds found in disturbed habitats. While some wet areas were observed, they do not constitute streams or wetlands as defined by state and federal agencies.

3.9.2 Project Impacts on Botanical Resources

No-Build Alternative

The No-Build Alternative would not create any direct impacts on vegetation. However, it would maintain the continued use of the existing motocross facility in Wailuā, which is adjacent to Nukoli'i Beach Park. Since vehicles access the beach from the existing motocross facility, closure of this facility would help to prevent impacts on beach vegetation.

Proposed Action

Ground-disturbance activities within the project area for the Proposed Action may include some de-vegetation, excavation and earth movement, and clearing to create the motocross track. No plant species currently listed as endangered, threatened, or proposed for listing under either the federal or the State of Hawai'i's endangered species programs were recorded within or close to the site of the Proposed Action. Therefore the proposed action is not expected to adversely impact any plant species currently listed as endangered, threatened, or that are currently proposed for listing under either federal or State of Hawai'i endangered species statutes.

3.9.3 Mitigation of Impacts on Botanical Resources

No mitigation of impacts on botanical resources is warranted due to the disturbed nature of the site of the Proposed Action. The Proposed Action would have a beneficial effect on vegetation at Nukoli'i Beach Park.

3.10 Hydrogeological Resources

3.10.1 Existing Conditions

Under the State's Water Resource Protection Plan, aquifers of the island of Kaua'i have been classified under an aquifer coding system to identify and describe these aquifers. This system is comprised of Aquifer Sectors, and then Aquifer Systems located within these sectors. An Aquifer Sector reflects an area with broad hydrogeological (subsurface) similarities while maintaining traditional hydrographic (surface), topographic and historical boundaries. The Aquifer system is an area within a sector that is more specifically defined by hydrogeologic continuity, particularly hydraulic connections among aquifer types and units.

The site of the Proposed Action is situated within the Līhu'e Aquifer Sector (303). This sector includes the hydrologic units of Kōloa, Hanamā'ulu, Wailuā, Anahola, and Kīlauea. The project site is situated within the Hanamā'ulu hydrologic unit (20102).

The geology of the Līhu'e Sector coincides with the Līhu'e Depression and the rocks of the Kōloa volcanics. Due to Kaua'i's complex relationships among the various types of groundwater and between groundwater and surface water, the estimated sustainable yield of the Līhu'e Aquifer Sector is difficult to estimate. The Līhu'e Aquifer Sector estimated sustainable yields are based upon the assumption that exploitable basal lenses exists.

3.10.2 Project Impacts on Hydrogeological Resources

No-Build Alternative

The No-Build Alternative would not have any direct effect on hydrogeological resources as no construction would occur.

Proposed Action

Construction of the Proposed Action is expected to have minimal impacts on the surrounding groundwater system. The minimal increase in developed impervious surface from this project would decrease the amount of localized groundwater recharge occurring at the project site. However, this decrease is expected to be negligible and ultimately inconsequential to the overall function of the area's natural hydrological system. As a result, the project should not adversely impact the underlying aquifer system nor contaminate potable water sources.

Construction activity is not anticipated to have impacts on coastal resources and water quality resulting from silt runoff. It is expected that contractors will minimize runoff by implementing best management practices (BMPs) to be developed during the project's design. Such measures should be designed to trap and reduce runoff during construction activities.

3.10.3 Mitigation of Impacts on Hydrogeological Resources

Appropriate BMPs would be considered and incorporated into design plans to address potential short-term impacts from runoff. In addition, such plans developed would be reviewed by pertinent agencies for comments and approval prior to construction. Therefore, impacts on coastal waters and water quality should be minimal or minor because the contractor will employ approved measures to prevent silt runoff from construction areas along with complying with other related permit conditions.

3.11 Streams and Water Resources

3.11.1 Existing Conditions

The 18-acre site for the Proposed Action is located approximately three miles inland from the east shore of Kaua'i, approximately one mile southwest of the south fork of the Wailuā River. The Wailuā River is the largest and only navigable river in the state of Hawai'i (Handy and Handy 1972).

The Proposed Action site is fallow agricultural land that supported cultivation and/or pasturage in the past. While some wet areas were observed during a January 8, 2009 field visit (which is the wet season for this area), they do not constitute streams or wetlands as defined by state and federal agencies. The water observed on the site drains to a narrow ditch that parallels Mā'alo Road.

The entire site of the Proposed Action, according to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM), is located in Flood Zone X. The Flood Insurance Program does not have any regulations for developments within Flood Zone X. Therefore, there are no floodplains on the project site.

3.11.2 Project Impacts on Streams and Water Resources

No-Build Alternative

The No-Build Alternative would not have any direct effect on water resources as no construction would occur.

Proposed Action

The Proposed Action would not involve any stream channel alterations or diverting of any surface flow water.

3.11.3 Mitigation of Impacts on Streams and Water Resources

Under the Proposed Action, appropriate best management practices would be developed during the project design, and implemented during construction activities to mitigate potential effects. Activities that decrease the water quality during construction should be avoided by using BMPs designed to reduce or trap runoff. Because more than one acre is to be affected, a National Pollutant Discharge Elimination System (NPDES) permit for construction activities would also be obtained, and the necessary requirements would be implemented by the contractor.

3.12 Wildlife

3.12.1 Existing Conditions

Field surveys were performed on the site on January 8, 2009 to assess the site's value for birds and mammals.

Birds

No avian species currently protected, or proposed for protection under either the Federal or State of Hawai'i endangered species programs were detected during the course of this survey (DLNR 1998, Federal Register 2005, USFWS 2005, 2008). Eighteen species of birds were identified in the field survey, all of which are alien to the Hawaiian Islands.

Although not detected during the survey, both the endangered Hawaiian Petrel (*Pterodroma sandwichensis*) and the threatened endemic sub-species of the Newell's Shearwater (*Puffinus auricularis newelli*) have been recorded over-flying the general project area between April and the end of November each year (Morgan et al., 2003, 2004, David and Planning Solutions 2008). There are no nesting colonies or suitable nesting habitat for either of these species on, or close to the subject property.

The primary cause of mortality in both Hawaiian Petrels and Newell's Shearwaters is thought to be predation by alien mammalian species at the nesting colonies (USFWS 1983, Simons and Hodges 1998, Ainley et al. 2001). Collision with man-made structures is considered to be the second most significant cause of mortality of these seabird species in Hawai'i. Nocturnally flying seabirds, especially fledglings on their way to sea in the summer and fall, can become disoriented by exterior lighting. When disoriented, seabirds often collide with manmade structures, and if they are not killed outright, the dazed or injured birds are easy targets of

opportunity for feral mammals (Hadley 1961, Telfer 1979, Sincock 1981, Reed et al. 1985, Telfer et al. 1987, Cooper and Day 1994, Podolsky et al. 1998, Ainley et al. 2001).

Mammals

No mammalian species protected or proposed for protection under either the Federal or State of Hawai'i endangered species programs were detected during the course of this survey (DLNR 1998, Federal Register 2005, USFWS 2005, 2008).

With the exception of the endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), or 'ōpe'ape'a as it is known locally, all terrestrial mammals currently found on the Island of Kaua'i are alien species, and most are ubiquitous. Horses were seen to the west of the site of the Proposed Action and domestic cattle and dogs were heard to the east of the site. The endangered Hawaiian hoary bat was not seen during the field survey. However, bats have been recorded foraging for insects in the general project area (David 2008). Hoary bats are widely distributed in the lowland areas on the Island of Kaua'i, and have been documented in and around almost all areas that still have some dense vegetation (Tomich 1986, David 1999, 2000, 2008, USFWS 1998).

3.12.2 Project Impacts on Wildlife

No-Build Alternative

The No-Build Alternative will have no direct effects on birds or mammals as it would involve no new construction. However, the continued use of the Wailuā site and the vehicular access provided to Nukoli'i Beach Park will potentially impact shorebirds that use the beach habitat.

Proposed Action

Under the Proposed Action, it is not expected that the modification of the habitat currently found within or adjacent to the site will have a negative impact on any avian or mammalian species currently listed as endangered, threatened, or that are currently proposed for listing under either federal or State of Hawai'i endangered species statutes (DLNR 1998, Federal Register 2005, USFWS 2005, 2008).

The principal potential impact the Proposed Action poses to Hawaiian Petrels and Newell's Shearwaters is the increased threat that birds will be downed after becoming disoriented by outdoor lighting associated with possible night-time construction activity, and following build-out with exterior lighting associated with the operation of the Kālepa motocross track at night.

The current habitat present on the site is not of the type or general plant makeup that one would ordinarily expect to find bats roosting in. It is possible that bats forage over the site on a seasonal basis. It is not expected that the clearing of the site and the operation of a motocross track will result in deleterious impacts to this listed species.

3.12.3 Mitigation of Impacts on Wildlife

If nighttime construction work will be required under the Proposed Action, it is recommended that lights be shielded to reduce the potential for interactions of nocturnally flying Hawaiian

Petrels and Newell's Shearwaters with external lights and man-made structures (Reed et al. 1985, Telfer et al. 1987).

It is also recommended that all exterior lighting associated with the operation of the proposed facility be shielded so as to reduce the potential for interactions of nocturnally flying Hawaiian Petrels and Newell's Shearwaters with external lights and man-made structures (Reed et al. 1985, Telfer et al. 1987).

CHAPTER 4: ECONOMIC AND SOCIAL FACTORS

This chapter discusses the project's probable impact on economic and fiscal factors associated with the State and County, as well as social factors such as changes in resident population, housing, and character of community.

According to the Kaua'i Economic Outlook Summary for 2009, rising energy prices; the global financial crisis; and the departure of ATA Airlines, Aloha Airlines, and two interisland cruise ships greatly impacted the Kaua'i economy. The State of Hawai'i's fiscal crisis will likely delay recovery. Further, the economic environment in the next two years will be challenging, and, it is anticipated that the recovery of the U.S. and global economies will be weak.

4.1 Economic Factors

Kaua'i County has transformed over time from a plantation economy to a mixed one. Tourism, diversified agriculture, construction, and local small businesses have replaced sugar as the basis of the economy. The island's main harbor of Nāwiliwili and the primary airport in Līhu'e service the entire island. The center of the island's population and commercial activity is found on the east side of the island between Kapa'a and Līhu'e. Both the existing Wailuā Motocross Track and the Proposed Action site in Kālepa are part of this region.

The largest industries in terms of jobs in Kaua'i County are in trade (retail and wholesale) and services. Retail trade accounted for 3,800 jobs in 2009. Hotels accounted for some 3,650 jobs in 2009, while eating and drinking establishments accounted for 3,150 jobs. Government at all levels counted for 4,450 jobs. Agriculture on the other hand accounted for approximately 600 jobs county-wide as of June 2002 (State of Hawai'i DBEDT, 2010).

The average annual wage in Kaua'i County in 2008 was \$36,191, compared to \$40,664 statewide. Estimated median household income in 2008 was \$62,501 in Kaua'i County compared to \$66,701 statewide. Kaua'i County had an estimated 9.0 percent of its residents below the poverty line compared to 8.5 percent statewide. (State of Hawai'i DBEDT, 2010)

4.1.1 Economic Impacts of No-Build Alternative

The No-Build Alternative is expected to have a minimal direct effect on the economy of Kaua'i. It will not create any new jobs, nor will it provide any economic benefit to the larger community. If motocross activities continue at the Wailuā Motocross Track, they will continue to impact a resort area and a golf course, thereby creating a minor adverse indirect economic effect on the viability of those properties.

4.1.2 Economic Impacts of Proposed Action

This section discusses both the short and long-term effects of the Proposed Action on both the County and State economic and fiscal factors. Development of the proposed Kālepa Motocross Track will have different impacts in relation to the County of Kaua'i and the State of Hawai'i. In discussions of jobs and income, three broad types are distinguished:

- Direct jobs are immediately involved with construction of a project or with its operations.
- Indirect jobs are created as businesses directly involved with a project purchase goods and services in the local community.
- Induced jobs are created as workers spend their income for goods and services.

Given the nature of the Proposed Action, the main economic effect of the project would be construction-related such as new construction jobs and income. However, it is likely that much of the construction work to create the motocross track and related amenities will be donated by the non-profit groups spearheading this project, particularly for any earthwork that does not need specialized construction expertise. Nonetheless, there will be the need for some limited amounts of specialized construction labor to be hired outside of the non-profit groups.

The limited specialized construction jobs would typically consist of tradesmen, mechanical operators, supervisors, etc. Any direct construction jobs created would also stimulate indirect and induced employment within other industries on the island such as retail, restaurants, material distributors, and other related businesses supporting the construction industry.

These new jobs would generate additional personal income for construction workers. Personal income is defined as the wages paid to the direct construction workers or operational employees associated with a development. It is anticipated that these construction jobs would likely be filled by residents from the island of Kaua'i employed within the construction industry. Indirect and induced income would also be generated from this project.

Fiscal Factors

Fiscal impacts associated with the Proposed Action would primarily involve slightly additional tax revenue generated to the State. Tax revenue sources for State government would be composed primarily of general excise taxes (GET) on development costs and construction materials, corporate income tax, and GET on construction income spent by workers. In addition, GET taxes on indirect and induced income spent stimulated by the spending of direct income would also contribute new revenues to the State.

Since County revenues are primarily limited to property tax revenues, there should be minimal changes to the County revenues. Because the Kālepa Motocross site is a government owned property under the County's jurisdiction, there wouldn't be any County property tax revenue generated from this site.

This project would not generate any new in-migrant residents to the island of Kaua'i. Thus, there should be minimal if any effect on State and County operational expenditures for public services.

There may be maintenance costs for the facility, incurred both by the motocross organizations and potentially the County.

4.2 Social Factors

4.2.1 Social Impacts of No-Build Alternative

The No-Build Alternative will not create any new direct social impacts. It will not change land usage in the area, or change any social or demographic characteristics of the area. However, the current Wailuā Motocross Complex is not compatible with nearby land uses (Nukoliʻi Beach Park, resorts, golf course) and potential cultural resources nearby, and continued usage of the facility will continue to impact on these resources. In addition potentially damaging motocross racing on Kālepa Ridge and Mauna Kapu, both culturally sensitive areas, would continue.

4.2.2 Social Impacts of Proposed Action

The Proposed Action is not expected to change the existing resident population in the region. This project is a County-initiated project intended to mitigate the effects of the existing Wailuā Motocross Complex on nearby properties. There are no new residential units or visitor units associated with this project, and no in-migration of individuals to reside within the County would result. As a result, there should be no impact on the existing resident population.

The project would alter the land usage for the 14.8 acres on the project site, but it would not change existing uses in the surrounding area or have a significant impact on surrounding land uses continuing to function as agricultural land.

The Proposed Action is not expected to require additional workers to come to Kauaʻi to construct the facility; local employment would be able to serve construction needs. There would be no impacts to infrastructure that would prevent existing residents from continuing to receive services.

Beneficial social impacts will accrue from the relocation of the existing Wailuā Motocross Complex from the site it presently occupies. The current facility is not compatible with nearby land uses (Nukoliʻi Beach Park, resorts, golf course) and potential cultural resources nearby. By relocating the site to a less sensitive area, the community overall will benefit. The new facility may also discourage damaging motocross racing on Kālepa Ridge and Mauna Kapu, which could create erosion and threaten these other resources in the future.

4.3 Secondary and Cumulative Impacts

4.3.1 Secondary Impacts

Secondary impacts, or indirect effects, are those which are caused by an action and are later in time or farther removed in distance, but are still reasonably foreseeable. Such effects may include growth inducing impacts and other effects related to changes in land use patterns, population density or growth rate, and related effects on air, water, and other natural systems.

No-Build Alternative

The No-Build Alternative, which will maintain the existing Wailuā Motocross Complex, will continue to create secondary effects on Nukoli'i Beach Park, nearby resorts, and Wailuā Golf Course) and potential cultural resources nearby. Potentially damaging motocross racing on Kālepa Ridge and Mauna Kapu, both culturally sensitive areas, would continue. Secondary effects on growth, land use changes, or other environmental resources are not anticipated.

Proposed Action

The Proposed Action is expected to have minimal if any secondary impacts on resident population, land use patterns, public facilities and infrastructure, and the natural environment.

Construction of this project is expected to generate only minor short-term impacts associated with these activities. Creation of short-term construction jobs are not expected to generate a substantial number of workers in-migrating to the island of Kaua'i to fill these jobs. It is anticipated that qualified local contractors on the island or within the State of Hawai'i would likely be used for the project's construction. These workers would thus have minimal if any effect on the County's residential population or housing demand.

This project would not affect the County's resident population growth projected for the Līhu'e District, and thus not generate the associated secondary effects on infrastructure, public facilities, and housing. The Proposed Action accommodates the need for a better venue for motocross activities. This improvement is not expected to significantly affect the County's rate of in-migration or potential relocation to the Līhu'e District area.

4.3.2 Cumulative Impacts

Cumulative impacts are effects on the environment which result from the incremental impact of a project when added to past, present, and reasonably foreseeable future actions. The cumulative impacts associated with project alternatives includes assessing the implementation of this project along with other known planned improvements within the study area that would affect or be affected by the project.

No-Build Alternative

The No-Build Alternative site (Wailuā Motocross Track) has been altered from its natural state for many years. The site has served as a motocross track for over 50 years and was a Marine Camp prior to that time. The development of the coastline and areas proximate to the coastline has also occurred over the decades as the golf course and nearby resorts have been constructed along with other developments further away. The No-Build Alternative will continue to create adverse impacts that will degrade Nukoli'i Beach as vehicle access directly onto the beach continues to be accommodated.

Proposed Action

No known developments are anticipated to be built in the general vicinity of the Kālepa Motocross Track. The area has served agriculture for the historic past, and this land use is anticipated to continue. Agricultural activities have served to reduce the biological diversity of

the surrounding area and it is likely that any cultural resources originally found in this area have been destroyed as well.

The Proposed Action will remove 18 acres of agricultural land from that use. Given the fact that the Kālepa Motocross Track site is located within a larger 6,700-acre Kālepa Agricultural Project, it will have a negligible effect on the overall conversion of agricultural property in the region.

The cumulative impact of the Proposed Action from construction related activities for the new motocross track are not expected to be significant. Construction of the track will alter the terrain, but the overall provision of above-ground facilities will be very limited.

Best Management Practices such as erosion control and other mitigative measures would be implemented by the contractor during construction activities. This includes compliance with all applicable permits and regulations such as those concerning noise control and air quality.

For all the reasons cited above, there are no major cumulative impacts anticipated from this project.

CHAPTER 5: INFRASTRUCTURE

The chapter that follows considers the effects of the Proposed Action on infrastructure.

5.1 Water Facilities

Kauai's Department of Water (DOW) operates 13 separate, unconnected water systems spread out from Kekaha to Hā'ena, but does not serve the site of the Proposed Action. The Puhī-Līhu'e-Hanamā'ulu and Wailuā-Kapa'a Water Service Areas are both several miles distant from the project site.

The East Kaua'i Water Users' Cooperative provides water for agriculture for an area approximately 6,000 acres in size above Kapa'a and adjacent to the North and South Forks of the Wailuā River. It does not serve the area south of the Wailuā River, where the Proposed Action is located.

No-Build Alternative

The No-Build Alternative will have no effect on water facilities.

Proposed Action

The Proposed Action will not use water resources in the short term and therefore will have no effect on the adequacy of the public water system. No irrigation is expected on the site as rainfall would be expected to accommodate any landscaping provided.

Provision of potable water and a permanent restroom facility at the proposed Kālepa Motocross Track is a long-term goal. Water for such uses would be expected to come from an on-site well as there is no public supply at the site. It is estimated that about 20 gallons are used for sanitation activities such as flushing toilets and on average, a healthy person consumes one gallon of water per day (Gleick, 1996).

5.2 Wastewater

There are no public wastewater sewers in close proximity to the site of the Proposed Action.

No-Build Alternative

The No-Build Alternative will not generate any on-site wastewater. The existing motocross track in Wailuā does not have any kind of permanent potable water or bathroom facilities, but rather is served by portable toilets.

Proposed Action

In the short term, the Proposed Action will not generate any on-site wastewater. Portable toilets will be provided as they are provided today at the existing site in Wailuā. Provision of potable water and a permanent restroom facility at the proposed Kālepa Motocross Track is a long-term goal. At that time, on-site treatment of the waste (septic tank, etc.) would be assumed.

5.3 Drainage

On the site of the Proposed Action, there are no storm sewers or ditches to handle site runoff. There is a discontinuous ditch along Māʻalo Road that may have been used for drainage long ago but has not been maintained.

No-Build Alternative

The No-Build Alternative does not raise any drainage concerns, and there is no formal infrastructure in place for handling drainage at the Wailuā Motocross Track site. A wooded area on the site's periphery adjacent to Nukoliʻi Beach park (which is not used for motocross activities) is the only identified flood zone (Zone VE). Zone VE has a 1-percent-annual-chance flood event due to storm-induced velocity wave action.

Proposed Action

The site of the Proposed Action in Kālepa would not have any drainage concerns. Little of the site will contain impervious surface and it is expected that drainage will be accommodated by surface flows and infiltration. Thus, the increased storm water runoff generated by this project would be small and is not expected to have a significant impact on downstream properties. Any drainage facilities that are provided will be designed in accordance to the County's Storm Drainage Standards and design plans will be appropriately coordinated with the County for their review and approval. The Hawaiʻi Department of Transportation (HDOT) has requested that no additional drainage be allowed to flow on HDOT Right of Way (Māʻalo Road). Grading and Drainage Plans will be submitted to HDOT for their approval.

5.4 Solid Waste

The County maintains an island-wide system of solid waste collection and disposal. The Kekaha Landfill, Phase II is the primary disposal site for solid waste serving the island, although the county is investigating a new landfill site in a more central location. Four refuse transfer stations are located throughout the island, and the Lihuʻe station is the closest station serving the project area. The county also maintains island-wide neighborhood recycling centers and provides some local refuse collection in residential areas.

No-Build Alternative

The No-Build Alternative would not change the solid waste generated at the existing Wailuā Motocross Track site, which is generally limited to refuse from food, beverage containers, utensils, etc. or biodegradable leftovers consumed on-site. Waste is only generated when users of the site are present on weekends and holidays. The organizations that operate the track are responsible for the disposal of the modest wastes generated on the site.

Proposed Action

Construction of the Proposed Action's Kālepa Motocross Track and related amenities will generate solid waste typical of normal construction related activities over a short time period. Generated wastes will consist primarily of vegetation, rocks, and other debris resulting from the clearing and grubbing of the area. The contractor will be required to remove all debris from the

site, and properly dispose or recycle them or at the landfill in conformance with County regulations. Such activities are expected to have a minor impact on County solid waste facilities.

Users of the Kālepa Motocross Track will generate a need for trash receptacles at various locations within the park to prevent rubbish from being openly discarded in the park area. Solid waste would only be generated on weekends and holidays when the track is in use. The amounts of solid waste generated are expected to be small as most solid waste will consist of food, beverage containers, utensils, etc. or biodegradable leftovers. Consequently, the Proposed Action is not expected to create a significant increase in rubbish since solid waste generated will occur only periodically and consist of solid waste that is rather small in quantity. The organizations that operate the track will be responsible for the disposal of the modest wastes generated on the site.

5.5 Transportation Facilities

The Proposed Action would divert trips destined to and from the existing Wailuā Motocross Complex to the new Kālepa Motocross Track. Both Mā'alo Road and Kūhiō Highway are State Department of Transportation facilities.

No-Build Alternative

The No-Build Alternative will maintain the status quo and not have any new effect on transportation facilities.

Proposed Action

Impacts on the transportation system are anticipated during and after construction. Construction is anticipated to occur during a limited period. Any construction vehicles and heavy equipment that must travel on state highways will obtain permits if needed from the HDOT Highways Division Kaua'i District Office.

Relocation of the motocross facilities from Wailuā to Kālepa is anticipated to have a negligible effect on traffic in the region. As with the current facility, the new facility is expected to only be utilized on weekends and holidays when travel demand is lower than during weekday AM and PM peak hours. Overall, traffic generation is not expected to cause capacity concerns on any state or county roadways, including Mā'alo Road or Kūhiō Highway.

Access

The Hawai'i Department of Transportation (HDOT) has approved provision of a single access driveway from Mā'alo Road to serve the Kālepa Motocross Track under the Proposed Action. The access may be no closer than 500 feet to the adjacent cane haul road to the north and width of the driveway is limited to 35 feet maximum. The driveway and any work performed on HDOT right-of-way will conform to HDOT standards and will be reviewed for approval by HDOT. Closure of the Wailuā Motocross Complex is not anticipated to have any effect on roads or highways.

CHAPTER 6: PUBLIC FACILITIES AND UTILITIES

The chapter that follows considers the effects of the Proposed Action on public facilities and utilities in the area.

6.1 Electrical and Communication Facilities

There are currently no electrical or communication facilities serving the site of the Proposed Action, although Kauaʻi Island Utility Cooperative (KIUC) electrical transmission lines are found on Māʻalo Road and along the gravel road that forms the east and north border of the site. No electrical, telecommunication or cable television services are expected to be provided to the Kālepa Motocross site. Any electrical demands at the current Wailuā Motocross Site are served by portable generators and this is expected to be the case at the new facility under the Proposed Action.

Under the Proposed Action, demand for electrical services is therefore not expected and therefore the Proposed Action will have no impact on KIUC's distribution facilities or power generation facilities. In the longer term, if it is decided to provide electrical or telecommunication utilities on the site, any design plans will need to be appropriately coordinated the respective for their review to secure necessary improvements.

6.2 Education

The Kauaʻi Complex Area, serving Līhuʻe and Kōloa, currently contains six public schools that are operated under the State Department of Education (DOE). The three elementary schools in the complex include Kaumualiʻi, Kōloa, and Wilcox. Kamakahalei Middle School and Kauaʻi High School are the only middle school and high school in the complex area respectively. Kawaikini New Century Public Charter School is also in Līhuʻe.

There are no educational facilities in close proximity to the Proposed Kālepa Motocross Track or the existing Wailuā Motocross Track and therefore, neither the Proposed Action nor the No-Build Alternative should have any impact on any educational facilities. All schools are located in Līhuʻe or Kōloa and are several miles from both sites.

6.3 Police Protection

The County of Kauaʻi Police Department provide services to the Līhuʻe District from its main station and administrative headquarters situated in Lihue. Police headquarters is located in Līhuʻe approximately 4.4 miles from the site of the Proposed Action. Police staff may be hired to assist in directing traffic during construction activities and at special events. However, these added services should not negatively impact the Department's ability to conduct normal operations.

Under the Proposed Action there is also the possibility of some complaints to the Police Department from residents over dust and noise from construction activities. Complaints are not anticipated to be an issue as part of the operations of the Kālepa Motocross Track because there are few nearby residents. As previously noted, however, the contractor would be

required to comply with applicable regulations and permit conditions governing construction activities to minimize disruptions to nearby residents. Best management practices would also be implemented to ensure that dust, erosion, and other nuisances from short-term construction activities are kept to a minimum.

The Kālepa Motocross Track is expected to have minimal demand on the operations of the police department. Such impacts are not expected to affect the police department's ability to provide adequate protection services to the surrounding community. The non-profit motocross clubs are expected to supervise activities to ensure that there are no problems that would require police intervention. Therefore, this project should not have a significant impact on the police department's ability to provide protective services in area of the Proposed Action either during construction or during operation of the facility. The Proposed Action is not expected to cause an increase in the population of the surrounding area and thus generate any additional need for police protection services.

6.4 Fire Protection

The Kauai Fire Department has a fire station in Līhu'e. Other stations are located in Waimea, Hanapēpē, Kalāheo, Kōloa, Kapa'a, and Hanalei. The County has a unified, island-wide system of fire protection and rescue services. The Līhu'e Fire Station is approximately 4.4 miles from the site of the Proposed Action. Back-up service is provided by the Kapa'a Fire Station, which is 8.8 miles away.

The Proposed Action is not expected to have a significant impact on the Fire Department's ability to provide fire protection services to the community. The Kālepa Motocross Track will be designed to meet any relevant fire and building code requirements, and the nonprofit motocross clubs will be required to conduct activities at the site in a manner that protects public safety. Site design will comply with County standards for fire truck access to the track. Consequently, the Proposed Action should not have a significant impact on the department's fire protection services.

6.5 Medical Facilities/EMT

The Wilcox Memorial Hospital and the Kauai Dialysis Unit are both in Lihue and are both approximately 2.9 miles away from the site of the Proposed Action. Secondary facilities are available in Kapa'a at the Samuel Mahelona Memorial Hospital, about 11.2 miles away. Both hospitals provide 24-hour emergency room service. The triage unit at the Wilcox Memorial Hospital has a waiting area that can accommodate 30 people at a time and has 20 beds. For severe cases, the hospital has a communication system that allows it to communicate with triage centers on O'ahu. Patients with severe and critical health conditions can be transported to O'ahu via air ambulance.

Emergency Medical Service (EMS) services are provided by American Medical Response out of Līhu'e near Wilcox Memorial Hospital.

Short-term construction activities associated with the project should have no impact on medical facilities or the activities occurring there. Upon completion of the new Kālepa

Motocross facility, motocross activities should not impact these medical facilities or services provided as the motocross track will be primarily used by current area residents and will not lead to an increase in the area's population. The Proposed Action will replace an existing motocross track and therefore, there should not be a net increase in the demand for emergency services.

CHAPTER 7: CONFORMANCE WITH PLANS AND POLICIES

The sections that follow establish the level of consistency of the Proposed Action with state and county plans and policies. Where relevant, the effect of closure of the existing Wailuā Motocross Complex is also considered.

7.1 Hawai'i State Plan

Chapter 226, Hawai'i State Planning Act, HRS, also known as the Hawai'i State Plan; serves as a comprehensive guide for the future long-range development of the State. It sets forth the overall theme, goals, objective, policies, and priorities for the State. Additionally it sets forth a statewide planning system to coordinate State and County activities as well as to implement the Hawai'i State Plan.

The Proposed Action is consistent with goals of the Hawai'i State Plan:

- 1. A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawai'i's present and future generations.*

The Proposed Action will benefit the local economy by moving the existing motocross site in Wailuā from a heavily developed area that caters to an important local industry, tourism, to a less sensitive location that will not conflict with this need.

- 2. A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well being of the people.*

The Proposed Action will remove a source of local noise and dust from a sensitive physical environment adjacent to Nukoli'i Beach Park and relocate it to an agricultural environment where the physical environment is less sensitive.

- 3. Physical, social, and economic well-being, for individuals and families in Hawaii, that nourishes a sense of community responsibility, of caring, and of participation in community life.*

The Proposed Action will provide a safe, family oriented, drug-free recreational environment to encourage statewide or national amateur motocross competition.

The Proposed Action is also consistent with the following objectives and policies:

Objectives and Policies for the Economy – Visitor Industry

Objectives:

- Achieve the objective of a visitor industry that constitutes a major component of steady growth for Hawai'i's Economy*

Policies:

- Improve the quality of existing visitor destination areas.*

- *Encourage cooperation and coordination between the government and private sectors in developing and maintaining well-designed, adequately serviced visitor industry and related developments which are sensitive to neighboring communities and activities.*

The Proposed Action will serve the needs of the visitor industry by moving the motocross track from an area with an adjoining beach, resort properties, and a golf course to an area with no such neighboring land uses that would be sensitive to noise and dust.

Objectives and Policies for the Physical Environment – Land-based, Shoreline, and Marine Resources

Objectives:

- *Prudent use of Hawai'i's land-based, shoreline, and marine resources.*
- *Effective protection of Hawai'i's unique and fragile environmental resources.*

Policies:

- *Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.*
- *Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.*

The Proposed Action is consistent with these objectives and policies by relocating the motocross track from the vicinity of Nukoli'i Beach to a less environmentally sensitive locale. It will also provide a viable location for motocross activities away from sensitive areas like Kālepa Ridge and Mauna Kapu.

Objectives and Policies for the Physical Environment – Land, Air, and Water Quality

Objectives:

- *Maintenance and pursuit of improved quality in Hawai'i's land, air, and water resources.*
- *Greater public awareness and appreciation of Hawai'i's environmental resources.*

Policies:

- *Promote the proper management of Hawai'i's land and water resources.*

The Proposed Action is consistent with these objective and policies by relocating the motocross track from the vicinity of Nukoli'i Beach to a less environmentally sensitive locale. It will also provide a viable location for motocross activities away from sensitive areas like Kālepa Ridge and Mauna Kapu.

Objectives and Policies for Socio-Cultural Advancement – Leisure

Objectives:

- *Planning for the State's socio- cultural advancement with regard to leisure shall be directed towards the achievement of the objective of the adequate provision of*

resources to accommodate diverse cultural, artistic, and recreational needs for present and future generations.

Policies:

- *Enhance the enjoyment of recreational experiences through safety and security measures, educational opportunities, and improved facility design and maintenance.*
- *Promote the recreational and educational potential of natural resources having scenic, open space, cultural, historical, geological, or biological values while ensuring that their inherent values are preserved*

The Proposed Action is consistent with these objective and policies by relocating the motocross track. Recreational values at Nukoli'i Beach and the Wailuā Golf Course will be enhanced. The new motocross track in Kālepa will also provide enhanced recreational opportunities for motorcycle enthusiasts.

7.2 State Land Use District

The State Land Use District Boundary Map for the region indicated that the site of the Proposed Action (Kālepa Motocross Track) is classified as an "Agricultural" District. **Section 1.4: Land Use Classifications and Designations** discussed this issue in greater detail. Because the motocross track will be less than 15 acres in size, oversight of this property as a part of the agricultural district will be under the jurisdiction of Kaua'i County rather than the State Land Use Commission.

The entire site of the proposed action falls within the Land Study Bureau's detailed land classification class "C" for overall master productivity rating. Within the Agricultural district, all lands with soil classified as C, D, E, or U shall be restricted to the uses permitted as set forth in HRS Section 205-5(b). In turn, Section 205-5(b) states that within Agricultural districts, uses compatible to the activities described in HRS Section 205-2 shall be permitted as determined by the commission. Per this section, the proposed action is a permissible use within the State Agricultural district because it is a public open area recreational facility.

The existing Wailuā Motocross Complex is located within the Conservation State Land Use District, and pre-dates this designation. Conservation lands are comprised primarily of lands in existing forest and water reserve zones and include areas necessary for protecting watersheds and water sources, scenic and historic areas, parks, wilderness, open space, recreational areas, habitats of endemic plants, fish and wildlife, and all submerged lands seaward of the shoreline. The conservation District also includes lands subject to flooding and soil erosion. New developments within Conservation Districts require Conservation District Use Permits. Therefore, the Proposed Action will have a beneficial effect on land use by removing an incompatible use from the Conservation district.

7.3 Chapter 344, State Environmental Policy

Chapter 344, Environmental Policy, HRS sets forth the State’s policy and guidelines to conserve natural resources and enhance the quality of life. The proposed action is consistent with the following policy:

Environmental Policy

1. *Conserve the natural resources, so that land, water, mineral, visual, air and other natural resources are protected by controlling pollution, by preserving or augmenting natural resource, and by safeguarding the State’s unique natural environmental characteristics in a manner which will foster and promote the general welfare, create and maintain conditions under which humanity and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of the people of Hawaiʻi.*
2. *Enhance the quality of life by:*
 - a. *Setting population limits so that the interaction between the natural and artificial environments and population is mutually beneficial;*
 - b. *Creating opportunities for the residents of Hawaiʻi to improve their quality of life through diverse economic activities which are stable and in balance with the physical and social environments;*
 - c. *Establishing communities which provide a sense of identity, wise use of land, efficient transportation, and aesthetic and social satisfaction in harmony with the natural environment which is uniquely Hawaiian; and*
 - d. *Establishing a commitment on the part of each person to protect and enhance Hawaiʻi’s environment and reduce the drain of nonrenewable resources.*

The Proposed Action is consistent with these policies. There will be positive impacts to natural resources by relocating the motocross track away from environmentally sensitive areas. There will be an enhanced quality of life for Kauaʻi island residents through improved recreational opportunities, by relocating the motocross track away from Nukoliʻi Beach Park and Wailuā Golf Course, and by providing a new motocross facility. It will also provide a viable location for motocross activities away from sensitive areas like Kālepa Ridge and Mauna Kapu.

7.4 County of Kauaʻi General Plan

The Kauaʻi County General Plan (2000) sets forth the broad policies and implementing actions in graphics and text to guide the future development of Kauaʻi County. It is intended to improve the physical environment in the County as well as the health, safety, and general welfare of Kauaʻi’s people. Guiding the General Plan is the vision for Kauaʻi in 2020 as:

- *a “garden island” of unsurpassed beauty;*
- *a rural environment of towns separated by broad open spaces;*
- *a vital modern society formed by the people and traditions of many cultures;*

- *an island of distinctly individual towns and communities, each with its own unique history and character;*
- *a community which cares for its land and waters, leading the way with best management practices in the development of roads and other public facilities and in its development and environmental regulations;*
- *an agricultural center, producing a wide range of crops, food, and forest products for local consumption and export;*
- *a resort destination where visitors are welcomed, supported with adequate facilities, and provided with a variety of cultural and recreational opportunities;*
- *a resort destination whose governmental and industry leaders respect the island's residents and their need to have a community life where visitors are not always present and who find effective ways to protect resident's customary use of special places for religious and cultural observances, fishing, gathering, hunting, and recreation; and*
- *an island whose government supports the labor force and small business owners, firmly holding to essential policies and regulations while eliminating unnecessary red tape.*

The proposed action is consistent with some of the following General Plan policies and implementing actions:

Agricultural Lands

Policy

- Lands included within the Agricultural designation shall be predominantly used for or held in reserve to be used in the future for agricultural activities. These activities include the breeding, planting, nourishing and caring for, gathering, and processing of any animal or plant organism, including aquatic animals and plants, for the purpose of producing food or material for non-food products; the commercial growing of flowers or other ornamental plants, the commercial growing of forest products; and the commercial breeding and caring for domestic animals and pets.
- The primary intent of the Agricultural designation is to conserve land and water resources in order to:
 - Insure an excellent resource base for existing and potential agricultural uses;
 - Assure a sufficient supply of land available for sale or lease at a cost that is economically feasible for agricultural enterprise; and
 - Promote and preserve open agricultural lands as a key element of Kaua'i's rural character and lifestyle, essential to its image as "The Garden Island" and to the continued viability and development of Kaua'i visitor industry.
- In administering zoning and subdivision regulations, the County shall seek to preserve important agricultural lands. Important agricultural lands include those designated "A" or "B" by the Land study Bureau evaluation or "Prime" or "Unique" by the Agricultural

Lands of Importance to the State of Hawai'i evaluation; provided that these ratings shall be superseded at such time as the State of Hawai'i officially maps and designates Important Agricultural Lands, as mandated in the State Constitution.

- Lands designated Agriculture shall include: important agricultural lands; lands in active agricultural use; lands with potential for agriculture, silviculture or aquaculture; and other lands not suited for urban development because of location, topography, economy of public services, or other purpose related to general health, safety and welfare.
- The secondary intent of the Agriculture designation is to provide an opportunity for Kaua'i citizens to reside in an agricultural community. An "agricultural community" is an area that has both agricultural uses and residences. Typically, an agricultural community is established through subdivision of land and provision of roads and potable water service. Agricultural communities are generally located in outlying areas, do not have convenient access to County facilities, and may not receive the full range or highest level of services such as available to residential communities, towns, and urban centers.
- The primary intent of the Agricultural designation shall take precedence over the secondary intent.
- To implement the Agricultural designation, specific controls on the subdivision and alteration of designated lands shall be formulated to prevent the dissipation of agricultural potential, the loss of rural character, and the dispersal of residential and other urban uses.
- The following principles shall be applied in the development of an agricultural community;
 - Maintain irrigation works and easements where feasible and beneficial to existing or potential agricultural uses within the site or downstream; and
 - Preserve wetlands and streams and provide a riparian buffer area to prevent land disturbance and to filter runoff.

The Proposed Action is generally inconsistent with these policies. Approximately 18 acres of property zoned Agriculture will be taken out of agricultural use and 14.8 acres will be used for a new motocross park in Kālepa. The remaining 3.2 acres will be kept as open space. The acreage that will be affected is classified as Agricultural Land of Importance to the State of Hawai'i (ALISH), although it was not classified as "A" or "B" under the state Land Study Bureau evaluation. It should be kept in perspective, however, that the land is located within the greater 6,700-acre Kālepa Agricultural project. Therefore, it is a miniscule proportion of available agricultural land in the region.

Scenic Views

Policy

- *In developing public facilities and in administering land use regulations, the County shall seek to preserve scenic resources and public views. Public views are those from a public place, such as a park, highway, or along the shoreline.*
- *The County shall observe the following general principles in maintaining scenic resources:*
 - *Preserve public views that exhibit a high degree of intactness or vividness.*
 - *“Intactness” refers to both the integrity of visual patterns and the extent to which the landscape is free from structures or other visually encroaching features.*
 - *“Vividness” relates to the memorability of a view, caused by contrasting landforms which create striking and distinctive patterns. (Examples are the silhouette of Mt. Hā’upu against the horizons, views of the Nounou Mountain from the valley and the coast, and the view of Hanalei Valley from the overlook).*
- *Preserve the scenic qualities of mountains, hills and other elevated landforms, qualities such as silhouette against the horizon and the mass and shape of the landform.*
- *Preserve the scenic qualities of lowland/open space features, such as the shoreline, the edge of a coastal bluff, a march, a fishpond, or a historic or cultural property. Structures should not impede or intrude upon public views of the feature and should not alter the character of the immediate area around the land feature, historic, or cultural property.*

The Proposed Action is both consistent and inconsistent with these policies, but the net result of the Proposed Action on Scenic Views would be expected to be positive overall. While Mā’alo Road is considered a “Scenic Roadway Corridor” and the proposed Kālepa Motocross Track will border on (and gain access from) Mā’alo Road, the relocation of the motocross track will benefit the adjoining Nukoli’i Beach Park area, a visually sensitive area currently impacted by the Wailuā Motocross Park that is identified in the General Plan’s Heritage Resources map. Under the No-Build Alternative, motocross activity would also continue on Kālepa Ridge and Mauna Kapu, which are visually sensitive resources identified in the General Plan’s Heritage Resources map as well.

Coastal Lands

Policy

- *When developing public facilities or granting zoning, land use permits, or subdivision for development along the coast, the first priority shall be to preserve and protect sandy beaches.*
 - *Strips of land along the shoreline that have been placed in the State Conservation District or in the County Open zoning district are intended to serve as a buffer from coastal erosion. Structures should be sited inland of these coastal buffers on lands that are appropriately zoned.*

- *When development is proposed along a sandy beach, hazards of long-term coastal erosion should be assessed and used to determine appropriate setbacks.*

The Proposed Action is consistent with these policies. It will relocate motocross activities from the current Wailuā site, which is located in close proximity to the shoreline, and is found in the State Conservation District and the Special Management Area. The Proposed Action will move the motocross activities to a non-coastal area zoned Agricultural by the County of Kaua'i. Nukoli'i Beach Park will benefit from this relocation.

Native Hawaiian Rights

Policy

- *Under the State Constitution and the County Charter, the County of Kaua'i is empowered to promote the health, safety and welfare of all inhabitants without discrimination as to ethnic origin. As part of carrying out its responsibilities under the Constitution and the Charter, the County recognizes the rights of native Hawaiians and the laws concerning lands and waters that have been established through the State Constitution, State and Federal laws, and State and Federal court decisions. No County ordinance or rule shall modify or diminish these rights:*
 - *Native Hawaiian water rights provided under the State Water Code, HRS Chapter 174C.*
 - *Kuleana lands, water rights and access rights provided under the Kuleana Act of 1850, as recognized in current statutes, rules and court decisions.*
 - *Konohiki and hoa'aina fishing rights provided under the 1839 Law of Kamehameha, as modified by subsequent legislative acts and court decisions.*
 - *Traditional and customary rights of Native Hawaiians, such as for access and gathering, provided under the State Constitution and Hawai'i Revised Statutes, as interpreted by the courts (i.e., the PASH case).*
 - *Burial rights provided under the Hawai'i Historic Preservation Act and the federal Native American Graves Repatriation Act.*
 - *Preservation of historic properties and archaeological resources provided under the federal Archaeological Resources Protection Act of 1979; the National Historic Preservation Act of 1966; and the Hawai'i Historic Preservation Act.*

The proposed action is consistent with these policies. As described in **Section 3.7: Historic and Archaeological Resources** and **Section 3.8: Cultural Impact Assessment**, there is no known use of the site of the Proposed Action by Native Hawaiians and there are no historic or cultural resources that are known on that property. In contrast, the existing motocross track in Wailuā is potentially much closer to sensitive cultural and archaeological resources near the shoreline.

7.5 County Zoning District

The site of the Proposed Action for the Kālepa Motocross Track is located on lands zoned Agricultural by the County of Kauaʻi. Approximately 18 acres of land has been used historically for agriculture, and the project will convert 14.8 acres to recreational use as a motocross track. This use is permissible in the Agricultural Zoning District and does not require a Use Permit or Variance Permit.

In accordance with Section 8-7.7 of the County Comprehensive Zoning Ordinance (CZO), a Class II Permit will be required for the development of the new motocross facility because the project site is not located within a Constraint District or Special Treatment District and is also large enough to qualify for more than one dwelling unit.

7.6 Development/Community Plan

The Līhuʻe Planning District is one of five Planning Districts guiding the implementation of the Kauaʻi General Plan. The Proposed Action to construct a new motocross track in Kālepa is located on lands designated Agricultural on the Līhuʻe Planning District Land Use Map.

The existing motocross track in Wailuā is designated as “park.”

7.7 Special Management Area

The Proposed Action is not located within the Special Management Area (SMA) and is not subject to the provisions of Chapter 205A, HRS and the Special Management Rules of the County of Kauaʻi, as amended.

However, it should be noted that the existing Wailuā Motocross Track site is located within the SMA, and pre-dates the SMA designation of the area. Therefore, the Proposed Action will have a beneficial effect on land use by removing an incompatible use from the Special Management Area.

CHAPTER 8: AGENCY AND PUBLIC CONSULTATION

Consultation with various Federal, State and County government agencies was conducted to obtain their comments and concerns associated with the project as part of the environmental assessment process.

8.1 Pre-Assessment Consultation Efforts

Letters providing project information along with a preliminary site plan were sent to various consulted parties in June 29, 2010 solicit their initial comments and concerns associated with the project as part of the preparation for the Draft EA. A listing of agencies and organizations for which consultation letters were sent is provided below. Those providing written response are identified with a "»" symbol. Copies of written comments received are included in **Appendix B: Consultation Efforts**. Comments received have been addressed in the appropriate sections of this Final EA.

FEDERAL AGENCIES

- » U.S. Department of Agriculture
U.S. Department of the Army, Army Engineer Division
U.S. Environmental Protection Agency, Region 9
U.S. Department of the Interior, Pacific Island Region, Fish and Wildlife Service

STATE OF HAWAII AGENCIES

- Department of Agriculture
- » Department of Accounting and General Services
Department of Hawaiian Home Lands
- » Department of Health
- » Department of Land and Natural Resources, Land Division
- » Department of Land and Natural Resources, Engineering Branch
- » Department of Land and Natural Resources, Division of Forestry & Wildlife
- » Department of Land and Natural Resources, Land Division, Kaua'i District
- » Department Land and Natural Resources, State Historic Preservation Division
- » Department of Transportation
Office of Hawaiian Affairs

COUNTY OF KAUA'I AGENCIES

- Department of Planning
Department of Public Works, Engineering Division
Department of Transportation
- » Department of Water
Fire Department
Police Department

8.2 Draft EA Comments

Notification on the availability of the Draft EA was published on September 23, 2012 in the Office of Environmental Quality Control's (OEQC) *The Environmental Notice*. The Draft EA was publicly available online through the OEQC's website.

Following the Draft EA's publication notice, a 30-day public review comment period was opened to ensure that the public and agency stakeholders had an adequate opportunity to review the Draft EA and provide comments that would be included as part of the official administrative record. No comments were received during this period.

CHAPTER 9: FINDINGS AND DETERMINATION

To determine whether a proposed action may have a significant effect on the environment, the Approving Agency needs to consider every phase of the action, the expected primary and secondary consequences, cumulative effect, and the short- and long-term effects. The Approving Agency's review and evaluation of the proposed action's effect on the environment would result in a determination whether: 1) the action would have a significant effect on the environment, and an Environmental Impact Statement Preparation Notice should be issued, or 2) the action would not have a significant effect warranting a Finding of No Significant Impact (FONSI).

This chapter discusses the results of the environmental assessment conducted of the proposed Kālepa Motocross Track in relation to the 13 Significance Criteria prescribed under the State Department of Health's Administrative Rules Title 11, Chapter 200. The purpose of this assessment was to consider the "significance" of potential environmental effects which includes the sum of effects on the quality of the environment along with the overall and cumulative effects. The resulting findings are discussed below for each criterion.

9.1 Findings

1. *Involves an irrevocable commitment to loss or destruction of any natural or cultural resource.*

The Proposed Action would not result in the irrevocable commitment to loss or destruction of any natural or cultural resource. As discussed in **Chapter 2: Project Description**, the improvements are intended to mitigate the impacts of the existing Wailuā Motocross Park on other more sensitive land uses nearby. The proposed Kālepa Motocross Track would be constructed within an undeveloped site in an agricultural area that has been highly disturbed by past human activity and contains no notable biological or cultural resources. Thus, there would be no destruction or loss of any significant, endangered, or threatened botanical, faunal, geological, or other natural resources.

In terms of archaeological and historic resources, there are no known historic or culturally significant sites within or surrounding the site of the Proposed Action. In the event subsurface human remains or other indications of human activity older than 50 years are encountered during construction activities, all work would stop immediately and the SHPD notified. The treatment of human remains encountered would be determined and conducted in accordance with the applicable requirements of Chapter 6E, HRS, and Chapter 13-300, Hawai'i Administrative Rules.

The Proposed Action would also not restrict access to surrounding areas that may be potentially used for traditional native Hawaiian cultural practices or the cultural practices of any other cultures. This project would not prevent access to shoreline or surrounding mauka areas that may be used for traditional gathering or other cultural practices, as other access points exist to reach the shoreline and surrounding mauka areas.

In contrast to the Proposed Action, the No-Build Alternative could have a destructive effect on both natural and cultural resources. Under the current conditions, vehicle access is facilitated to Nukoli'i Beach, which could have both sensitive biological and cultural resources. There are current uses of public and private land for motocross activity, and some areas such as Kālepa Ridge and Mauna Kapu are subjected to such use by motorcycles. The No-Build Alternative would not provide an alternative for users of such areas as would the Proposed Action.

2. *Curtails the range of beneficial uses of the environment.*

The Proposed Action would not curtail the range of beneficial uses of the surrounding environment. The site chosen for this project is currently undeveloped and located within an agricultural setting. Existing surrounding land uses include agricultural lands and open space. The Proposed Action would not change the existing uses of such lands. Existing surrounding uses would remain as the Kālepa Motocross Track is constructed and completed. Thus, the proposed project will not limit or significantly impact existing uses or the surrounding environment.

3. *Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.*

The improvements proposed under the Proposed Action would not conflict with the State's long-term environmental policies or goals and guidelines expressed in Chapter 344, HRS. This Final EA addressed the probable environmental impacts associated with the project, which would be primarily associated with short-term construction activities. Generally, the project would be consistent in conserving natural resources in the area, and enhancing the quality of life for residents on Kaua'i that participate in motocross, BMX, and ATV activities.

4. *Substantially affects the economic, social welfare, or cultural practices of the community or State.*¹

As discussed under **Chapter 4: Economic and Social Factors**, the project would not have any significant negative impacts on the economic structure of the Līhu'e District, or the social welfare of the community. The Proposed Action may create a short-term, minor economic benefit by generating some construction jobs and personal income, though much of the work involved in constructing the Proposed Action would likely be volunteer work by members of the non-profit organizations shepherding the project. Improvements planned are limited to construction of tracks, irrigation ditch lines, grandstands, and eventual permanent restrooms. Some necessary infrastructure such as electrical, and water connections will be needed to connect to the County's existing facilities. There should be no negative impact or change to

¹ This significance criterion was modified to reflect the recent change to Chapter 343, HRS approved by the Governor as Act 50 on April 26, 2000. This Act added "cultural practices" as part of the factors considered in determining the significance of an effect.

the overall character of the community. In terms of cultural practices, there are no known cultural resources at the site of the Proposed Action or traditional native Hawaiian cultural practices occurring within the project area. Therefore, the proposed Kālepa Motocross Track is not expected to have negative impacts upon cultural resources or the social and economic welfare of the community or State of Hawai'i.

5. *Substantially affects public health.*

The Proposed Action is not expected to substantially affect public health since it would involve the construction of a motocross track in an undeveloped area. Negative impacts from noise or dust should not have any adverse effects on the community at large given the rural nature of the surrounding area. The Proposed Action will increase the viability of the public to use other recreational areas currently affected by the existing Wailuā Motocross Track, specifically Nukoli'i Beach Park and the Wailuā Golf Course. The enhancement of these recreational areas will provide a benefit to the public's health.

6. *Involves substantial secondary impacts, such as population changes or effects on public facilities.*

The Proposed Action should not have any secondary impacts on the social environment or infrastructure and public facilities. The Proposed Action strictly involves only construction of a new motocross park, and does not include residential housing or visitor accommodations. Therefore, there would not be any elements of the project contributing to in-migration of residents or additional visitors to the island. The project would also not significantly impact other existing infrastructure facilities or public facilities in the immediate area due to the type of improvements being proposed as discussed in **Chapter 5: Infrastructure** and **Chapter 6: Public Facilities and Utilities**.

7. *Involves a substantial degradation of environmental quality.*

The Proposed Action would not involve a substantial degradation to the quality of the surrounding environment. Improvements are limited to construction of new motocross track and accessory improvements. As a result, construction activities would be performed on undeveloped areas, and necessary best management practices would be implemented during construction to minimize erosion and other short-term impacts.

In contrast, ongoing motocross activities at the Wailuā Motocross Track under the No-Build Alternative have already created impacts on environmentally sensitive areas such as Nukoli'i Beach Park.

8. *Is individually limited, but cumulatively has considerable effect upon the environment or involves a commitment for larger actions.*

The Proposed Action only involves the construction of the motocross track and accessory improvements as described in **Chapter 2: Project Description**. Impacts associated with these improvements were addressed in this document, and are mainly associated with construction activities, with limited impacts occurring from the operation of the motocross track itself. Thus, the cumulative impacts of these improvements were considered in assessing environmental

impacts, and it was determined that the project would not have a significant effect on the environment. The Proposed Action does not involve the commitment for larger actions on the proposed motocross track or community.

9. *Substantially affects a rare, threatened, or endangered species, or its habitat.*

There are no known endangered, threatened, or rare botanical resources on the site of the Proposed Action, or faunal and avifaunal species inhabiting the area which may be affected by construction activities or the operation of the new motocross track. Necessary control measures and best management practices would be implemented to minimize runoff and other potential short-term impacts associated with construction activity. Thus, the Proposed Action is not expected to substantially affect rare, threatened, or endangered species or potential habitat for such species.

In contrast, the No-Build Alternative would potentially continue to affect sensitive areas such as the shoreline and other areas where unauthorized motocross activity now takes place.

10. *Detrimentially affects air or water quality or ambient noise levels.*

The Proposed Action should not have a detrimentally significant impact on air, water quality, or ambient noise levels. Impacts associated with these factors would be limited to short-term construction activities and post-construction operation of the motocross park. However, such impacts are expected to be minor due to the limited scope of development and because the site is not in close proximity to developed areas. To further minimize impacts on air and water quality, construction activities would be subject to applicable State regulations as discussed under Chapter 3: Physical and Biological Environment.

In contrast, the existing Wailuā Motocross Track creates impacts from noise and dust on adjoining sensitive land uses, and under the No-Build Alternative, these impacts would continue.

11. *Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.*

The Proposed Action is not located within any environmentally sensitive area.

In contrast, the No-Build Alternative has the potential to affect environmentally sensitive areas. According to FIRM mapping, a marginal portion of the existing Wailuā Motocross Track is within the Zone VE floodplain (affected by a 1-percent-annual chance of storm-induced velocity wave-action). Furthermore, it is situated within an area that could be affected by tsunamis and is in close proximity to Nukoli'i Beach. It has also been noted that there are other environmentally sensitive areas like Kālepa Ridge and Mauna Kapu that are affected by motocross activity today, and the Proposed Action seeks to provide a better alternative.

12. *Substantially affects scenic vistas and view planes identified in county or state plans or studies.*

The Proposed Action is not expected to substantially affect scenic vistas or view planes. While Mā'alo Road is considered a "Scenic Roadway Corridor", landscaping and other mitigation will

help contain the view of the Kālepa Motocross Track from the road. Construction and the operation of the motocross track will not have a significant effect on scenic views with mitigation.

The existing Wailuā Motocross facility is located adjacent to Nukoli'i Beach Park, a visually sensitive area. Therefore, the No-Build Alternative will continue to create aesthetic impacts as well.

13. *Requires substantial energy consumption.*

The Proposed Action would not require substantial energy consumption. Some electrical facilities will be needed on the Kālepa Motocross Track site. Improvements planned are relatively minor and can be serviced using existing electrical distribution facilities and power generating sources. The amount of lighting needed will be generally minimal as most activity will take place during daylight hours.

Operations of the motorcycles and other motorized vehicles themselves will consume energy. However, this consumption already takes place at the current Wailuā Motocross Facility and therefore, the project would not be expected to significantly increase existing levels of consumption.

9.2 Determination

Based upon the result of the environmental assessment documented in this Final Environmental Assessment, a Negative Declaration also referred to as a Finding of No Significant Impact (FONSI) determination is warranted for the Kālepa Motocross Project. The findings supporting this anticipated determination are based upon the previous discussion of the project's affect on the environment in relation to the 13 Significance Criteria.

CHAPTER 10: REFERENCES

- Ainley, D. G, R. Podolsky, L. Deforest, G. Spencer, and N. Nur. 2001. The Status and Population Trends of the Newell's Shearwater on Kaua'i: Insights from Modeling, in: Scott, J. M, S. Conant, and C. Van Riper III (editors) *Evolution, Ecology, Conservation, and Management of Hawaiian Birds: A Vanishing Avifauna*. Studies in Avian Biology No. 22: Cooper's Ornithological Society, Allen Press, Lawrence, Kansas. (Pg. 108-123).
- Cooper, B. A and R. H. Day. 1994. Kauai endangered seabird study. Volume 1: Interactions of Dark-rumped Petrels and Newell's Shearwaters with utility structures on Kauai, Hawaii: Final Report, TR-105847-V1, Electric Power Research Institute, Palo Alto, California.
- County of Kaua'i (County) (2000, November). *Kaua'i General Plan*. Planning Department. Adopted under Ordinance No. 753 on November 29, 2000. Līhu'e, Kaua'i, Hawai'i.
- David, R. E. 2008. Unpublished field notes – Kaua'i, 1980 - 2008.
- Department of Geography (1998). *Atlas of Hawai'i*. Third Edition. University of Hawai'i at Hilo. University of Hawai'i Press. Honolulu, Hawai'i.
- Federal Emergency Management Agency (FEMA). 1993. Hazard Mitigation Report, Hurricane Iniki. In response to the September 12, 1992 Federal Disaster Declaration. FEMA-961-DR-HI. San Francisco, California.
- Federal Register. 2005. Department of the Interior, Fish and Wildlife Service, 50 CFR 17. Endangered and Threatened Wildlife and Plants. Review of Species That Are Candidates or Proposed for Listing as Endangered or Threatened; Annual Notice of Findings on Resubmitted Petition; Annual Description of Progress on Listing Actions. Federal Register, 70 No. 90 (Wednesday, May 11, 2005): 24870-24934.
- Furumoto, Augustine S., Norby N. Nielsen, and William R. Phillips (1973). *A Study of Past Earthquakes, Isoseismic Zones of Intensity, and Recommended Zones for Structural Design for Hawai'i*. Hawai'i Institute of Geophysics. University of Hawai'i. Honolulu, Hawai'i.
- Giambelluca, Thomas W., Michael A. Nullet and Thomas A. Schroeder 1986. Rainfall Atlas of Hawai'i, Department of Land and Natural Resources, Honolulu.
- Gleick, Peter (1996). Basic Water Requirements for Human Activities Meeting Basic Needs. Pacific Institute for Studies in Development, Environment, and Security. USA. http://www.pacinst.org/reports/basic_water_needs/basic_water_needs.pdf
- Hadley, T. H. 1961. Shearwater calamity on Kauai. 'Elepaio 21:60.
- Macdonald, Gordon A., Abbott, Agatin T., and Peterson, Frank L. (1983). *Volcanoes in the Sea, The Geology of Hawai'i*. Second Edition. University of Hawai'i Press. Honolulu, Hawai'i.
- Morgan, C., P. White, and R. E. David. 2003. Habitat Conservation Plan: Kaua'i Island Utility Cooperative: Working Paper No. 2 - Data Analysis: Interpreting the Save Our Shearwaters Bird Recovery Database (1979-2002) for Habitat Conservation Planning. Prepared for: Kaua'i Island Utility Cooperative.

- Morgan, C., P. White, and R. E. David. 2004. Habitat Conservation Plan: Kauaʻi Island Utility Cooperative: Data Report and Analysis: Save Our Shearwaters Bird Program 2003 Update. Prepared for: Kauaʻi Island Utility Cooperative.
- National Oceanic and Atmospheric Administration (NOAA) (2000). *Climatological Data Annual Summary; Hawaiʻi and Pacific*. Volume 96, Number 13. Department of Commerce, United States of America. National Climatic Data Center. Asheville, North Carolina.
- Podolsky, R., D.G. Ainley, G. Spencer, L. de Forest, and N. Nur. 1998. "Mortality of Newell's Shearwaters Caused by Collisions with Urban Structures on Kauaʻi". *Colonial Waterbirds* 21:20-34.
- Reed, J. R., J. L. Sincock, and J. P. Hailman 1985. Light Attraction in Endangered Procellariiform Birds: Reduction by Shielding Upward Radiation. *Auk* 102: 377-383.
- Sincock, J. L. 1981. Saving the Newell's Shearwater. Pages 76-78 in Proceedings of the Hawaiʻi Forestry and Wildlife Conference, 2-4 October 1980. Department of Land and Natural Resources, State of Hawaii, Honolulu.
- Soil Conservation Service (SCS), 1973. *Soil Survey of Islands of Kauaʻi, Oʻahu, Maui, Molokaʻi, and Lānaʻi, State of Hawaiʻi*. US Department of Agriculture. In cooperation with the University of Hawaiʻi, Agricultural Experiment Station, Washington, DC.
- State of Hawaiʻi, Department of Business, Economic Development, and Tourism (DBEDT) 2010. State Data Book 2009, A Statistical Abstract. Honolulu, Hawaiʻi. Accessed at <http://hawaii.gov/dbedt/info/economic/databook/db2009/>
- State of Hawaiʻi Department of Health, 2010a. State of Hawaiʻi 2010-2011 Air Monitoring Network Plan, July 1, 2010.
- State of Hawaiʻi Department of Health, 2010b. State of Hawaiʻi Annual Summary, 2009 Air Quality Data, September, 2010.
- State of Hawaiʻi Department of Land and Natural Resources (DLNR). 1998. Indigenous Wildlife, Endangered and Threatened Wildlife And Plants, And Introduced Wild Birds. Department of Land and Natural Resources. State of Hawaii. Administrative Rule §13-134-1 through §13-134-10, dated March 02, 1998.
- Telfer, T. C. 1979. Successful Newell's Shearwater Salvage on Kauai. *ʻElepaio* 39:71
- Telfer, T. C., J. L. Sincock, G. V. Byrd, and J. R. Reed. 1987. Attraction of Hawaiian seabirds to lights: Conservation efforts and effects of moon phase. *Wildlife Society Bulletin* 15:406-413.
- U.S. Fish & Wildlife Service (USFWS). 2005. Endangered and Threatened Wildlife and Plants. 50CFR 17:11 and 17:12 (Tuesday, November 1, 2005).
- U.S. Fish & Wildlife Service (USFWS). 1998. Recovery Plan for the Hawaiian Hoary Bat. U.S. Fish & Wildlife Service, Portland, Oregon.
- U.S. Fish & Wildlife Service (USFWS). 2008. USFWS Threatened and Endangered Species System (TESS), online at http://ecos.fws.gov/tess_public/StartTESS.do

Appendix A: Photographs of Project Site and Surrounding Areas

Kalepa Motocross Track Photo Appendix – Photo Key



Photos at Kalepa Motocross Track Project Site



Photos at existing Wailua Motocross Track

Kalepa Motocross Track Photo Appendix



1. Lihu'e Land Co, LLC Driveway Gate



2. Corner of property (left) looking north along Maalo Rd.



3. Corner of site (right) looking south along Maalo Rd.



4. Adjacent Property Driveway Gate

Kalepa Motocross Track Photo Appendix



5. West view of the project site



6. West view of project site from across Maalo Rd.



7. West view of project site



8. Wailuā Track access road off Kūhiō Hwy.

Kalepa Motocross Track Photo Appendix



9. Wailua Track entry gate and booth



10. West view of main track at Wailua



11. South view of Wailua entry gate



12. Wailua seating stands

Kalepa Motocross Track Photo Appendix



13. Wailuā Track announcer booth



14. Wailuā portable toilets



15. South view of Wailuā entry gate



16. East view of keiki track at Wailuā

Kalepa Motocross Track Photo Appendix



17. Nukolii Beach off-road vehicle access east



18. Nukolii Beach south view



19. Nukolii Beach access west view



20. Nukolii Beach north view

Appendix B: Consultation Efforts

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

July 5, 2010

Jared Chang, Project Planner
SSFM
501 Summer Street, Suite 620
Honolulu, Hawaii 96817

Dear Dr. Nojima:

**SUBJECT: NEPA Historic Preservation Review Comments on DEA
Chapter 6E-8 Historic Preservation Review –
Kalepa Motocross Track
Hanamalu Ahupua'a, Lihue District, Kaua'i, Hawai'i
TMK: (4) 3-9-002: 036**

Thank you for providing the opportunity to comment on this project. The location of this project is in the former cane lands. This location will have "no historic properties affected". This location is better than the present location which is near the beach in former burial ground.

Please contact me at (808) 692-8015 if you have any questions or concerns regarding this letter.

Aloha,

Nancy A. McMahon (Deputy SHPO)
Archaeology and Historic Preservation Manager

FILE COPY

LAKIRA H. THIRLICK
COMMISSIONER
COMMISSION ON WATER RESOURCES MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAKAMA
DEPUTY DIRECTOR

BOATING AND OCEAN RECREATION
COMMISSION ON WATER RESOURCES MANAGEMENT
CONSERVATION AND RECREATION ENVIRONMENT
FISHERY AND WILDLIFE
KAWAIIAN ISLAND RESERVATION COMMISSION

STATE OF HAWAII

IN INTERNATIONAL, INC.

RECEIVED

LOG NO: 2010.2486

DOC NO: 1007NN09

Archaeology

JUL 07 2010

JKE

SSFM INTERNATIONAL, INC.
RECEIVED

JUL 12 2010

JKE



STATE OF HAWAII
DEPARTMENT OF HEALTH

HONOLULU, HAWAII 96813-3378

July 1, 2010

Mr. Jared K. Chang, Project Planner
SSFM International, Inc.
501 Summer Street, Suite 620
Honolulu, Hawaii 96817

Dear Mr. Chang:

**SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment for the
Kalepa Motocross Track Project, Lihue, Kaua'i, Hawai'i**

Thank you for allowing us to review and comment on the subject document. The document was routed to the various branches of the Environmental Health Administration. We have no comments at this time, but reserve the right to future comments. We strongly recommend that you review all of the Standard Comments on our website: www.hawaii.gov/health/environmental/envy-planning/landuse/landuse.html. Any comments specifically applicable to this application should be adhered to.

The same website also features a Healthy Community Design Smart Growth Checklist (Checklist). The Hawaii State Department of Health, Built Environment Working Group, recommends that State and county planning departments, developers, planners, engineers and other interested parties apply the healthy built environment principles in the Checklist whenever they plan or review new developments or redevelopments projects. We also ask you to share this list with others to increase community awareness on healthy community design.

If there are any questions about these comments please contact the Environmental Planning Office at 586-4337.

Sincerely,

GENEVIEVE SALMONSON, Acting Manager
Environmental Planning Office

FILE COPY

CHRYME L. KURINO, M.D.
DIRECTOR OF HEALTH

In reply, please refer to:
EPO-1-3239

SFFM INTERNATIONAL, INC.
RECEIVED

JUL 12 2010

JKE
FILE

United States Department of Agriculture



Natural Resources Conservation Service
P.O. Box 5004 Rm. 4-118
Honolulu, HI 96850
808-541-2600

July 9, 2010

Mr. Jared K. Chang
Project Planner
SSFM International
501 Summer Street, Suite 620
Honolulu, HI 96817

FILE COPY

Dear Mr. Chang,

Thank you for providing the Natural Resources Conservation Service (NRCS) the opportunity to review the Pre-Assessment Consultation for Draft Environmental Assessment for the proposed Kalepa Motocross Track development project on Kauai. Please find enclosed a Soils and Prime Farmland map identifying the soils in the project area and their status as well as additional related soils information. As shown on the enclosed map, both soil map units in the project area, the Kapaa silty clay, 3-8% slopes (KkB) and the Kapaa silty clay, 8-15% slopes (KkC), are classified as Prime Farmlands. This information has been included for your aid in determining if a Farmland Impact Conversion Rating Form (AD-1008) is needed for this project. This form is required on projects that convert farmlands into non-farmland uses and have federal dollars attached to the project. See the website link below for more information on the Farmland Protection Policy Act, and a copy of the AD-1006 form with instructions. No hydric soils are located in the project area. Hydric soils identify potential areas of wetlands. If wetlands do exist, any proposed impacts to these wetlands would need to demonstrate compliance with the "Clean Water Act", and may need an Army Corps of Engineers 404 permit.

The enclosed soil map unit description provides an overall summary of the properties of the soils found in the project area. Since there is no specific interpretation related to motocross, I have enclosed the two available interpretations, Off-Road Motorcycle Trails and Vehicle Trafficability (Type 1, 50-passes, wet season), that appear to most closely replicate the conditions that will likely be created by the proposed project. Ratings for the soils in the project area for these given uses are "somewhat limited" and "fair" respectively. These ratings do not preclude the intended land use, however they do identify potential limitations for the use, which may require corrective measures, increase costs, and/or require continued maintenance.

Helping People Help the Land
An Equal Opportunity Provider and Employer

The NRCS Soil Survey is a general planning tool and does not eliminate the need for an onsite investigation to identify and document site-specific properties and conditions if more detailed information is required. If you have any questions concerning the soils or interpretations for this project please call, Tony Rolfes, Assistant State Soil Scientist, (808) 541-2600 x129, or email, Tony.Rolfes@hi.usda.gov.

NRCS - Farmland Protection Policy Act Website:
<http://www.nrcs.usda.gov/programs/fppal>

Sincerely,

Michael Robotham
LAWRENCE T. YAMAMOTO
Director

Pacific Islands Area

cc: Michael Robotham, Asst. Director for Soil Science and Natural Resource Assessments, USDA-NRCS, Pacific Islands Area State Office

Enclosures:

Soils and Prime Farmland



Legend

- Map Unit Name**
- KkCB - Kapaa silty clay, 3 to 8 percent slopes
 - KkC - Kapaa silty clay, 8 to 15 percent slopes

Farmland Classification

- Not prime farmland (Red hatched box)
- Prime farmland (Green hatched box)



Map prepared by Michael Robotham, USDA-NR CS Pacific Islands Area, July 8, 2010

Map Unit Description

Island of Kauai, Hawaii

[Minor map unit components are excluded from this report]

Map unit: KkCB - Kapaa silty clay, 3 to 8 percent slopes

Component: Kapaa (100%)

The Kapaa component makes up 100 percent of the map unit. Slopes are 3 to 8 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water saturation within a depth of 72 inches. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water classification is 3s. This soil does not meet hydric criteria.

Map unit: KkC - Kapaa silty clay, 8 to 15 percent slopes

Component: Kapaa (100%)

The Kapaa component makes up 100 percent of the map unit. Slopes are 8 to 15 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 9 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.



Survey Area Version: 6
Survey Area Version Date: 12/31/2006

Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, completely fill a map unit. Areas of soils of other taxonomic classes may occur in a map unit, but they are not the dominant soil or miscellaneous area for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

Off-Road Motorcycle Trails

Aggregation Method: Dominant Condition
The-break Rule: Higher

Island of Kauai, Hawaii
Survey Area Version and Date: 6 - 12/31/2006

Map symbol	Map unit name	Rating	Component name and % composition
K0B	Kapaa silty clay, 3 to 8 percent slopes	Somewhat limited	Kapaa 100% Too clayey
K0C	Kapaa silty clay, 8 to 15 percent slopes	Somewhat limited	Kapaa 100% Too clayey

Off-Road Motorcycle Trails

Rating Options

Attribute Name: Off-Road Motorcycle Trails

Off-road motorcycle trails are primarily for recreational use, and require little or no site preparation. They are not covered with surfacing material or vegetation. Considerable compaction of the soil material is likely.

The ratings are based on the soil properties that influence erodibility, trafficability, dustiness, and the ease of revegetation. These properties are stoniness, slope, depth to a water table, ponding, flooding, and texture of the surface layer.

"Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value to represent the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. The components in the map unit name represent the major soils within a map unit delineation. Minor components are those that are not included in the map unit name. Minor components may be very different from the major components. Such differences could significantly affect use and management of the map unit. Minor components may or may not be documented in the database. The results of aggregation do not reflect the presence or absence of limitations of the components which are not listed in the database. An on-site investigation is required to identify the location of individual map unit components.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's component series. In the next step of the aggregation process, a thematic map for soil map units can be generated. The map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be generated. Aggregation must be done because, on any soil map, map units are delineated but components are not. The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

The-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Vehicle Trafficability, Type 1, 50-passes, wet season

Aggregation Method: Dominant Condition
Tie-break Rule: Lower

Island of Kauai, Hawaii

Survey Area Version and Date: 6 - 12/31/2008

Map symbol	Map unit name	Rating	Component name and % composition
K&B	Kapaa silty clay, 3 to 8 percent slopes	Fair	Kapaa 100% Slick Slippery Low strength Slope
K&C	Kapaa silty clay, 8 to 15 percent slopes	Fair	Kapaa 100% Slick Slippery Low strength Slope

Vehicle Trafficability, Type 1, 50-passes, wet season

Rating Options

Attribute Name: Vehicle Trafficability, Type 1, 50-passes, wet season

Military category type 1 vehicles are lightweight vehicles with low contact pressure (less than 2.0 pounds per square inch). For this interpretation, trafficability is the capacity of the soil to support these vehicles during wet periods. Trafficability estimates can be based on terrain data, such as topography, and from soil data and weather conditions. Military trafficability interpretations are based on procedures and criteria described in the Army Field Manual - 5-430-00-1, chapter 7, and are conservative estimates for use in operations planning. Commanders and engineers must be cautious because the interpreted results can vary greatly.

Assessing the trafficability of fine-grained soils (silt and clay) and sands that contain enough fine-grained material to behave like fine-grained soils when wet is more difficult than assessing the trafficability of coarse-grained soils (clean sands). Soil-vehicle interactions involving soil strength, slipperiness, slickness, large surface stones, and slope are the basis for trafficability interpretations.

The information presented in this interpretation is limited to problems associated with soils. It does not include problems associated with natural or manmade obstacles (such as forests or ditches) or with vehicle characteristics (such as the maximum tilt or side angle at which a vehicle can climb without power stall or overturning). The interpretation is developed for temperate and tropical climates and for soils that have been subject to freeze-thaw cycles if they are not frozen at the time of vehicle use.

Trafficability performances were estimated for a maximum of 50 vehicle passes in the same route. Slope, stoniness, depth to bedrock or a cemented pan, flooding, ponding, and the Unified soil classification are the main soil properties used in determining vehicular trafficability. For good trafficability, the surface of the soil should absorb rainfall readily, should remain firm under repeated traffic, and should not be dusty when dry. Soil properties that influence soil strength, slickness, and stoniness are the Unified soil classification and its relationship to soil moisture conditions and surface ponding, flooding, and stoniness.

Rating classes of "excellent," "good," "fair," or "poor" indicate the extent to which the soils are suitable for military vehicle traffic. "Excellent" indicates that the soil has characteristics that limit trafficability and that very low maintenance can be expected. "Good" indicates that the soil may have characteristics that limit trafficability but are favorable for use. Good operational performance and low maintenance can be expected. The limitations can be overcome or minimized by special planning, design, or management. "Fair" indicates that the soil has characteristics that limit trafficability and are moderately favorable for use. The limitations can be overcome or minimized by special planning, design, or management. Fair performance, moderate maintenance, and soil degradation can be expected. "Poor" indicates that the soil has characteristics that severely limit trafficability and one or more features that are unfavorable for use. Generally, the limitations cannot be overcome without major soil reclamation, special design, or special management. Poor performance, high maintenance, and soil degradation can be expected.

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value to represent the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. The components in the map unit name represent the major soils within a map unit delineation. Minor components make up the balance of the map unit. Great differences in soil properties can occur between map unit components and within short distances. Minor components may be very different from the major components. Such differences could significantly affect use and management of the map unit. Minor components may or may not be documented in the database. The results of aggregation do not reflect the presence or absence of limitations of the components which are not listed in the database. An on-site investigation is required to identify the location of individual map unit components.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be generated. Aggregation must be done because, on any soil map, map units are delineated but components are not. The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If there are two or more groups with the same highest cumulative percent composition, the corresponding attribute value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Tie-break Rule: Lower

USDA Natural Resources Conservation Service

Application Version: 5.2.0016

07/08/2010

Page 2 of 3

Vehicle Trafficability, Type 1, 50-passes, wet season

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

USDA Natural Resources Conservation Service

Application Version: 6.2.0016

07/08/2010

Page 3 of 3

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

LAURA B. THIELER
BOARD OF LAND AND NATURAL RESOURCES
COMMISSIONER OF LAND AND NATURAL RESOURCES MANAGEMENT

RECEIVED
JUL 30 2010

JKE

July 17, 2010

SSFM International
501 Summer Street Suite 620
Honolulu, Hawaii 96813

Attention: Mr. Jared K. Chang, Project Planner
Ladies and Gentlemen:

Subject: Pre-Assessment Consultation for Draft Environmental Assessment for
Kalepa Motocross Track

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR), Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Engineering Division, Division of Forestry & Wildlife, Land Division - Kauai District, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,
Charlene E. Unoki
Morris M. Atta
Acting Administrator

FILE COPY

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

LAURA B. THIELER
BOARD OF LAND AND NATURAL RESOURCES
COMMISSIONER OF LAND AND NATURAL RESOURCES MANAGEMENT

RECEIVED
LAND DIVISION

2010 JUL -9 P 3:43

DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

July 5, 2010

MEMORANDUM

TO: DLNR Agencies:
 Div. of Aquatic Resources
 Div. of Boating & Ocean Recreation
 Engineering Division
 Div. of Forestry & Wildlife
 Div. of State Parks
 Commission on Water Resource Management
 Office of Conservation & Coastal Lands
 Land Division - Kauai District
 Historic Preservation

FROM: Charlene Unoki, Assistant Administrator
SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment for Kalepa Motocross Track
Island of Kauai
LOCATION: Island of Kauai
APPLICANT: SSFM International on behalf of County of Kauai, Department of Parks & Recreation

Charlene

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by July 15, 2010.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

() We have no objections.
() We have no comments.
(X) Comments are attached.
Signed: *Charlene Unoki*
Date: 7/15/10

10 JUL 06 PM 02:51 ENGINEERING

NATH Section

LAND AND NATURAL RESOURCES
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSIONER OF LAND AND NATURAL RESOURCES



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

July 5, 2010

LAND AND NATURAL RESOURCES
DEPARTMENT OF LAND AND NATURAL RESOURCES



MEMORANDUM

TO:

DLNR Agencies:

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division -Kauai District
- Historic Preservation

FROM:

Charlene Unoki, Assistant Administrator
Pre-Assessment Consultation for Draft Environmental Assessment for Kalepa
Motocross Track

LOCATION: Island of Kauai

APPLICANT: SSFM International on behalf of County of Kauai, Department of Parks & Recreation

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by July 15, 2010.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

DPAFW supports
this project.

() We have no objections.

() We have no comments.

(X) Comments are attached.

Signed: *Paul J. Conry*
Date: JUL 17 2010

PAUL J. CONRY, ADMINISTRATOR
DIVISION OF FORESTRY AND WILDLIFE

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/CharleneUnoki
RE: PreAssesConsultDEAKalepaMotorTrack
Kauai/93

COMMENTS

- () We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone _____.
- (X) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone X. The Flood Insurance Program does not have any regulations for developments within Flood Zone X.
- () Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is _____.
- () Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tysau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.
- () Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:
 - () Mr. Robert Sumitomo at (808) 768-8097 or Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.
 - () Mr. Frank DeMarco at (808) 961-8042 of the County of Hawaii, Department of Public Works.
 - () Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.
 - () Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.
- () The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.
- () The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.
- () Additional Comments: _____
- () Other: _____

Should you have any questions, please call Ms. Suzie S. Agraan of the Planning Branch at 587-0258.

Signed: *Carty S. Chang*
CARTY S. CHANG, ACTING CHIEF ENGINEER

Date: _____

STP (SLP)

Laura B. Thielens
BOARD OF LAND AND NATURAL RESOURCES
COMMISSIONER OF WATER RESOURCES MANAGEMENT



STATE OF HAWAII
LAND DIVISION
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

July 5, 2010

MEMORANDUM

TO: DLNR Agencies:

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division - Kauai District
- Historic Preservation

PA2721408

JUL 21 2010

DLNR:03-0-00043

Charlene

FROM: Charlene Unoki, Assistant Administrator

SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment for Kalepa Motocross Track

LOCATION: Island of Kauai

APPLICANT: SSFM International on behalf of County of Kauai, Department of Parks & Recreation

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by July 15, 2010.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed: *[Signature]*
Date: 7/9/2010

LINDA LINGLE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

July 22, 2010

Mr. Jared K. Chang
Project Planner
SSFM International
501 Summer Street, Suite 620
Honolulu, Hawaii 96817

Dear Mr. Chang:

Subject: Kalepa Motocross Track
Pre-Assessment Consultation for Draft Environmental Assessment (DEA)

Thank you for requesting the State Department of Transportation's (DOT) review of the subject project. DOT understands the County of Kauai, Department of Parks and Recreation proposes to develop a recreational motocross park in the Lihue District. Access to the project will be from the State highway facility, Maalo Road (State Route 583).

Given the project location, Maalo Road will be impacted. DOT offers the following comments:

1. Prior to the development of the site, the developer should discuss acceptable highway access requirements with DOT Highways Division.
 - a. Project impacts to State highway facilities in the area on and at Maalo Road and Kuhio Highway;
 - b. Short-term and long-term traffic generated by the project;
 - c. Construction vehicles and heavy equipment type that will be used on the jobsite. Please note that a permit is required from DOT Highways Division Kauai District Office to transport oversized equipment and overweight loads on State highway facilities;
2. The DEA should discuss and evaluate:

Post-it® Fax Note	7671	Date	7/18	# of pages	2
To	Jared Chang	From	STP		
Co./Dept.		Co.			
Phone #	521-7348	Phone #	587-1945		
Fax #	521-7348	Fax #	587-2362		

Mr. Jared K. Chang
Page 2
July 22, 2010
STP 8.0168

- d. Construction activity hours and business hours for the facility upon completion;
- e. Compliance with the National Pollutant Discharge Elimination System (NPDES) permit requirements for construction activity disturbing one (1) or more acres of land area;
- f. No additional drainage will be allowed to flow onto the State right-of-way. The grading and drainage plans/study should be submitted to DOT Highways Division for review and approval as; and
- g. The requirement that construction plans be submitted to DOT Highways Division for approval for all work done within or affecting the State highway right-of-way.

DOT appreciates the opportunity to provide comments and requests four copies of the DEA when it is available. If there are any questions, please contact Mr. David Shimokawa of the DOT Statewide Transportation Planning Office at telephone number (808) 587-2356.

Very truly yours,


BRENNON T. MORIOKA, Ph.D., P.E.
Director of Transportation

SLP:km

bc: HWY-P, HWY-K (both w/incoming), STP(SLP)

From: Jared Chang
To: Darryl Perry
Cc: Sherwin Perez
Subject: RE: Kalepa Motocross Track
Date: Thursday, July 29, 2010 1:38:00 PM

Darryl,

Confirming receipt of this comment. We will incorporate this into the Draft EA.

Mahalo,
Jared Chang

From: Darryl Perry [mailto:dperry@kauai.gov]
Sent: Thursday, July 29, 2010 1:36 PM
To: Jared Chang
Cc: Sherwin Perez
Subject: Kalepa Motocross Track

Aloha Jared,

A little late, because I just received comments from Patrol Lieutenant Sherwin Perez on the Kalepa Motocross Track proposal. He did not identify any immediate concerns relative to law enforcement. However, of concern is the remoteness of the area which may delay emergency response teams should a serious mishap occur. Mahalo. Chief Perry

Darryl D. Perry

Chief of Police
 Kauai Police Department
 3990 Kaana Street, Suite 200
 Lihue, Hawaii 96766

Ph. 808-241-1600

CONFIDENTIALITY NOTICE: This message is covered by the Electronic Communications Privacy Act, Title 18, United States Code, §§ 2510-2521. This e-mail and any attached files are deemed privileged and confidential, and are intended solely for the use of the individual(s) or entity to whom this e-mail is addressed. If you are not one of the named recipient(s) or believe that you have received this message in error, please delete this e-mail and any attached files from all locations in your computer, server, network, etc, and notify the sender IMMEDIATELY at dperry@kauai.gov. Any other use, re-creation, dissemination, forwarding or copying of this e-mail and any attached files is strictly prohibited and may be unlawful. Receipt by anyone other than the named recipient(s) is not a waiver of any attorney-client, work product, or other applicable privilege. Receipt by anyone other than the named recipient(s) is not a waiver of any applicable privilege. Thank you for your cooperation. Nothing in this message is intended to constitute an Electronic signature for purposes of the Uniform Electronic Transactions Act (UETA) or the Electronic Signatures in Global and National Commerce Act ("E-Sign") unless a specific statement to the contrary is included in this message.



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, HONOLULU
FORT SHAFTER, HAWAII 96859-5440

REPLY TO
ATTENTION OF:

August 16, 2010

INTERNATIONAL, INC.
RECEIVED

AUG 19 2010

Jkc

Regulatory Branch

Jared K. Chang
SSFM International
501 Summer Street, Suite 620
Honolulu, Hawaii 96817

File Number POH-2010-0169

FILE

FILE COPY

Dear Mr. Chang:

We have received your request for the Department of the Army to provide pre-application consultation for a Draft Environmental Assessment (EA) for the proposed Kalepa Motocross Track in Lihue, Island of Kauai, Hawaii. We completed our review of the submitted document pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404).

Section 10 requires that a Department of the Army (DA) permit be obtained from the U.S. Army Corps of Engineers (Corps) prior to undertaking any construction, dredging and other activities occurring **in, over, or under navigable waters of the U.S.** The line of jurisdiction extends to the Mean High Water Mark for tidal waters. Section 404 requires that a DA permit be obtained for the discharge (placement) of dredge and/or fill material into waters of the U.S., including wetlands. The line of jurisdiction extends to the Mean Higher High Water Mark for tidally influenced waters, the Ordinary High Water Mark for non-tidal waters and the approved delineated boundary for wetlands.

Based on the information provided, the project site abuts the Pacific Ocean, a navigable water subject to Corps jurisdiction. Therefore, Section 10 authorization may be required should activities extend seaward of the Mean High Water Mark. Additionally, it appears the unnamed drainage ditch along the southern property line is a tributary to the Pacific Ocean, and is thus a water of the U.S. subject to Corps jurisdiction. When developing the EA, we recommend you conduct a thorough investigation of alternatives that do not impact a water of the United States. In addition, include sufficient information concerning the scope of work, including the use of Best Management Practices, i.e. silt fences and sandbag berms within the vicinity and in close proximity to potentially regulated bodies of water.

Only the Corps of Engineers has the authority to determine if any of these aquatic features are or are not waters of the U.S., potentially subject to regulations under Section 10 and/or Section 404. As such, we encourage the landowner to submit a request for an approved jurisdictional determination (JD) for these water bodies. Your request to the Corps should include descriptions proposed work which may result in an impact to any regulated waterbody and recommend the

- 2 -

applicant also include on-site photographs so the Corps may conduct an approved JD, if necessary.

If any water bodies are determined to be waters of the U.S., the applicant must obtain authorization from the Corps prior to discharge of dredged or fill material into these water bodies. Fill material, permanent or temporary, may include, but is not limited to: rock, dirt, sand, sandbags, concrete, piping a water of the U.S. or diverting a water of the U.S. into a pipe. The applicant should contact the Corps to determine if any of the proposed work constitutes a "discharge of fill" and submit an application and associated drawings that meet our drawing recommendations found at <http://poh.usace.army.mil/EC-R/EC-R.htm>. The Corps will then review the application to ensure it complies with all necessary federal laws and regulations. Note that if the fill results in the loss of waters of the U.S. and/or associated functions, the applicant may be required to provide compensatory mitigation for any unavoidable impacts. A request for an approved JD can be submitted prior to, or concurrently with, an application for the proposed work.

Thank you for contacting us regarding this project and providing us with the opportunity to comment. Please be advised you can provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at <http://per2.nwp.usace.army.mil/survey.html>.

Should you have any questions, please contact Mr. Robert Deroche at (808) 438-2039 or via email at robert.d.deroche2@usace.army.mil. We have assigned the project the reference number **POH-2010-0169**. Please cite the reference number in any future correspondence concerning this project.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch

From: Imaikalani Aiu
To: Lenny Ranzoso; Jared Chang
Cc: Jan Costa
Subject: Motor X EA
Date: Monday, August 23, 2010 2:08:53 PM

Howzit Lenny and Jared

I'm sorry I didn't get to this comments earlier and well past the deadline for pre-comments. We will however comment on the EA.

As for some prelim info I can tell you that the zoning will require a Special Permit and a Use Permit with Class IV approved by Commission.

It seems we will be the first discretionary authority so we will be issuing the FONSI or accepting the EIS.

Mahalo

Imaikalani Aiu
Deputy Planning Director
808-241-4050

Appendix C: Archaeological Assessment

DRAFT
Archaeological Assessment for the
Kālepa Moto-Cross Project,
Wailua Ahupua‘a, Līhu‘e District, Kaua‘i Island
TMK (4) 3-9-002: por 020

Prepared for
 SSFM International, Inc.
 and
 County of Kaua‘i

Prepared by
 Hallett H. Hammatt, Ph.D.
 Mindy Simonson, M.A.
 and
 David Shideler, M. A.

Cultural Surveys Hawai‘i, Inc.
Kailua, Hawai‘i
(Job Code: WAILUA 5)

June 2009

O‘ahu Office
 P.O. Box 1114
 Kailua, Hawai‘i 96734
 Ph.: (808) 262-9972
 Fax: (808) 262-4950

Maui Office
 16 S. Market Street, Suite 2N
 Wailuku, Hawai‘i 96793
 Ph: (808) 242-9882
 Fax: (808) 244-1994

www.culturalsurveys.com

Management Summary

Reference	DRAFT Archaeological Assessment for the Kālepa Moto-Cross Project, Wailua Ahupua‘a, Līhu‘e District, Kaua‘i Island TMK (4) 3-9-002: por 020 (Hammatt et al. 2009)
Date	June 2009
Project Number (s)	Cultural Surveys Hawai‘i (CSH) Job Code: WAILUA 5
Investigation Permit Number	The fieldwork component of the archaeological assessment was carried out under archaeological permit number 08-14 issued by the Hawai‘i State Historic Preservation Division/Department of Land and Natural Resources (SHPD/DLNR), per Hawai‘i Administrative Rules (HAR) Chapter 13-282.
Project Location	The project area comprises 18 acres located approximately three miles inland from the east shore of Kaua‘i, approximately one mile southwest of Wailua Falls in Wailua Ahupua‘a. The project area is bounded on the east by Mā‘alo Road. This area is depicted on the 1996 USGS 7.5-Minute Series Topographic Map, Kapa‘a quadrangle.
Land Jurisdiction	Public, County of Kaua‘i
Agencies	SHPD/DLNR
Project Proponent	SSFM International, Inc. and County of Kaua‘i
Project Description	The proposed project consists of 18 acres of agricultural lands that were set aside in 2001 by the State of Hawai‘i Department of Land and Natural Resources to the County of Kaua‘i to be used for recreational purposes (a proposed moto-cross track).
Project Acreage	18 acres
Area of Potential Effect (APE)	The APE is defined as the entire 18-acre project area.
Historic Preservation Regulatory Context	The proposed development constitutes a project requiring compliance with and review under State of Hawai‘i historic preservation review legislation (Hawai‘i Revised Statutes (HRS) Chapter 6E-8 and Hawai‘i Administrative Rules (HAR) 13-13-275). CSH completed an archaeological inventory survey investigation of the 18-acre project area, per the requirements of HAR Chapter 13-13-276. Because no historic properties were identified in the project area, this investigation is termed an archaeological assessment per HAR Chapter 13-13-275-5. This archaeological assessment report was prepared to support the proposed project’s historic preservation review and any other project-related historic preservation consultation.

Fieldwork Effort	The fieldwork component of this archaeological assessment was accomplished on December 29, 2008 by two CSH archaeologists, Missy Kamai, B.A. and Gerald Ida, B.A. under the general supervision of Hallett H. Hammatt, Ph.D (principal investigator). The fieldwork required approximately two person-days to complete and consisted of a complete pedestrian inspection of the area of the proposed Kālepa Moto-Cross Project.
Number of Historic Properties Identified	No historic properties were identified within the current project area.
Effect Recommendation	No historic properties were identified within the 18-acre project area. Decades of previous sugar cane cultivation have likely significantly impacted or destroyed any surface or subsurface historic properties that may have existed within the project area. Consequently, CSH's effect recommendation for the proposed development project is "no historic properties affected."
Mitigation Recommendation	No historic preservation mitigation measures are recommended for the proposed development project. If, in the unlikely event that intact cultural resources are encountered during the course of development activities, all work in the immediate area should stop and SHPPD/DLNR should be promptly notified.

Table of Contents

Management Summary	i
Section 1 Introduction	1
1.1 Project Background.....	1
1.2 Scope of Work	1
1.3 Environmental Setting.....	5
1.3.1 Natural Environment.....	5
1.3.2 Built Environment.....	5
Section 2 Methods	7
2.1 Field Methods	7
2.2 Document Review.....	7
Section 3 Traditional and Historical Background	8
3.1.1 Origin of the Place Name - Wailua.....	8
3.1.2 Mythological and Traditional Accounts of Wailua	8
3.1.3 Early Historic Period	10
3.1.4 The Māhele Period.....	13
3.1.5 Post-Māhele Period.....	13
3.1.6 The Plantation Era	15
Section 4 Previous Archaeological Research	19
4.1 Previous Archaeological Research and Finds in Wailua Ahupua'a.....	19
4.2 Archaeological Research in the Vicinity of the Project Area	19
4.3 Background Summary and Predictive Model.....	34
Section 5 Results of Fieldwork	36
5.1 CSH 1 Description	36
Section 6 Summary	40
Section 7 Recommendations	41
7.1 Project Effect	41
7.2 Mitigation Recommendations	41
Section 8 References Cited	42

List of Figures

Figure 1. Portion of 1996 U.S. Geological Survey 7.5-minute topographic Kapa'a quadrangle, showing the location of the current project area.....	2
Figure 2. Tax map (TMK) [4] 3-9-002, showing the location of the current project area.....	3
Figure 3. Aerial photograph showing the location of the current project area.....	4
Figure 4. Overlay of Soil Survey of the State of Hawai'i (Foote et al. 1972), indicating sediment types within the project area.....	6
Figure 5. Map of the location of the seven <i>heiau</i> of Wailua (some locations approximate), marked by red triangles, in relation to the present project area (modification of figure in Yent 1997b:5).....	9
Figure 6. 1878 Government Survey map by W.D. Alexander, showing location of the project area in relation to "Waiehu Falls"(adapted from Alexander 1933).....	11
Figure 7. 1920 map by John Lydgate, showing concentration of LCA awards in Wailua Kai focused on the flood plain on the north side of the river (present project area is well to the southwest of this map).....	14
Figure 8. Lihue Plantation Co. map showing intensive sugar cane cultivation in and surrounding the project area (Field 28) and a railroad line along the north edge of the project area. Note that map is as originally drawn, with north to the reader's right.....	16
Figure 9. Portion of 1910 U.S. Geological Survey quad, showing the project area. Note the railroad along the north edge and road along the east edge.....	17
Figure 10. Portion of 1963 U.S. Geological Survey, showing the project area.....	18
Figure 11. Previous archaeological studies in the general vicinity of the project area.....	20
Figure 12. Previously identified historic properties near the project area.....	27
Figure 13. Portion of 1996 U.S.G.S. 7.5-minute topographic Kapa'a quadrangle, showing the location of CSH 1 (determined to be just a road drainage ditch).....	37
Figure 14. General view of the project area, view to north.....	38
Figure 15. CSH 1 earthen ditch showing sidewalk, view to west.....	38
Figure 16. CSH 1 earthen ditch showing extent of vegetation, view to west.....	39
Figure 17. CSH 1 earthen ditch showing dumping of modern trash.....	39

List of Tables

Table 1. Previous Archaeological Studies near the Project Area.....	21
Table 2. Archaeological Sites near the Project Area.....	28

Section 1 Introduction

1.1 Project Background

At the request of SSFM International, Inc. and County of Kaua'i, Cultural Surveys Hawai'i (CSH) carried out an archaeological assessment for the Kālepa Moto-Cross Project, Wailua Ahupua'a, Līhue District, Kaua'i Island (TMK [4] 3-9-002: por 020). The project area comprises 18 acres located approximately three miles inland from the east shore of Kaua'i, approximately one mile southwest of Wailua Falls in Wailua Ahupua'a. The project area is bounded on the east by Mā'alo Road. This area is depicted on the 1996 U.S. Geological Survey 7.5-Minute Series Topographic Map, Kapa'a quadrangle, tax map, and aerial photograph (Figure 1 to Figure 3).

The proposed project consists of 18 acres of agricultural lands that were set aside in 2001 by the State of Hawai'i Department of Land and Natural Resources to the County of Kaua'i to be used for recreational purposes (moto-cross track). The Area of Potential Effect (APE) is defined as the entire 18-acre project area. The proposed development of the current project area appears to pose no additional auditory, visual, or other environmental impacts to any historic properties in the surrounding area.

The proposed development constitutes a project requiring compliance with and review under State of Hawai'i historic preservation review legislation (Hawai'i Revised Statutes (HRS) Chapter 6E-8 and Hawai'i Administrative Rules (HAR) 13-3-275). CSH completed an archaeological inventory survey investigation of the 18-acre project area, per the requirements of HAR Chapter 13-13-276. Because no historic properties were identified in the project area, this investigation is termed an archaeological assessment per HAR Chapter 13-13-275-5. This archaeological assessment report was prepared to support the proposed project's historic preservation review and any other project-related historic preservation consultation.

1.2 Scope of Work

The scope of work for this investigation includes:

1. Historical and previous archaeological background research to include study of archival sources, historic maps, Land Commission Awards and previous archaeological reports to construct a history of land use and to determine if archaeological sites have been recorded on or near this property.
2. Field inspection of the project area to identify any surface archaeological features and to investigate and assess the potential for impact to such sites. This assessment will identify any sensitive areas that may require further investigation or mitigation before the project proceeds.
3. Preparation of a report to include the results of the historical research and the fieldwork with an assessment of archaeological potential based on that research, with recommendations for further archaeological work, if appropriate. It will also provide mitigation recommendations if there are archaeologically sensitive areas that need to be taken into consideration.

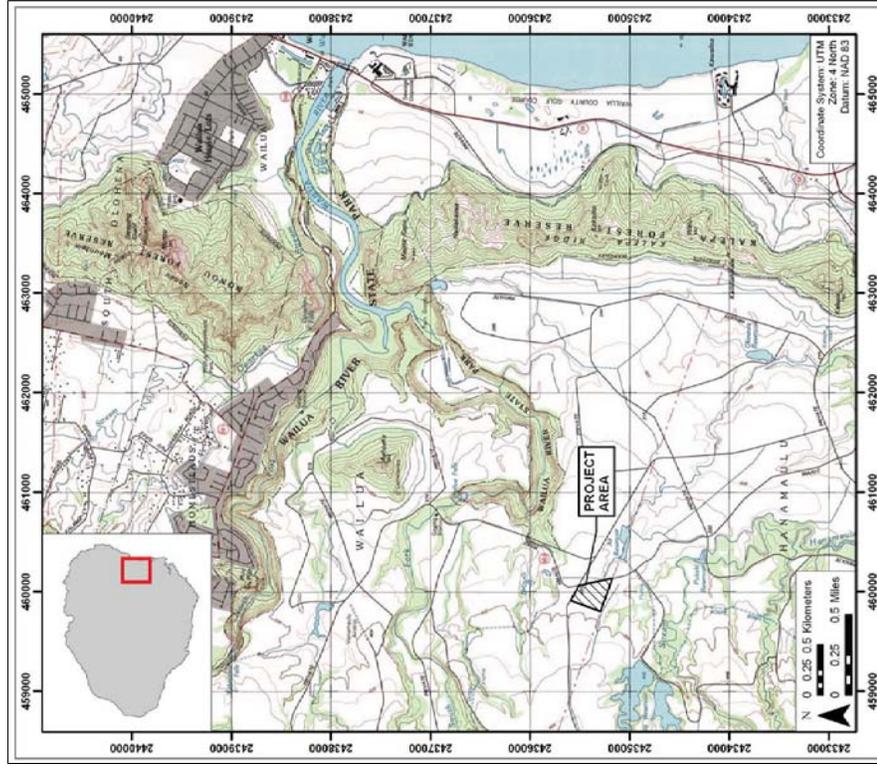


Figure 1. Portion of 1996 U.S. Geological Survey 7.5-minute topographic Kapa a quadrangle, showing the location of the current project area

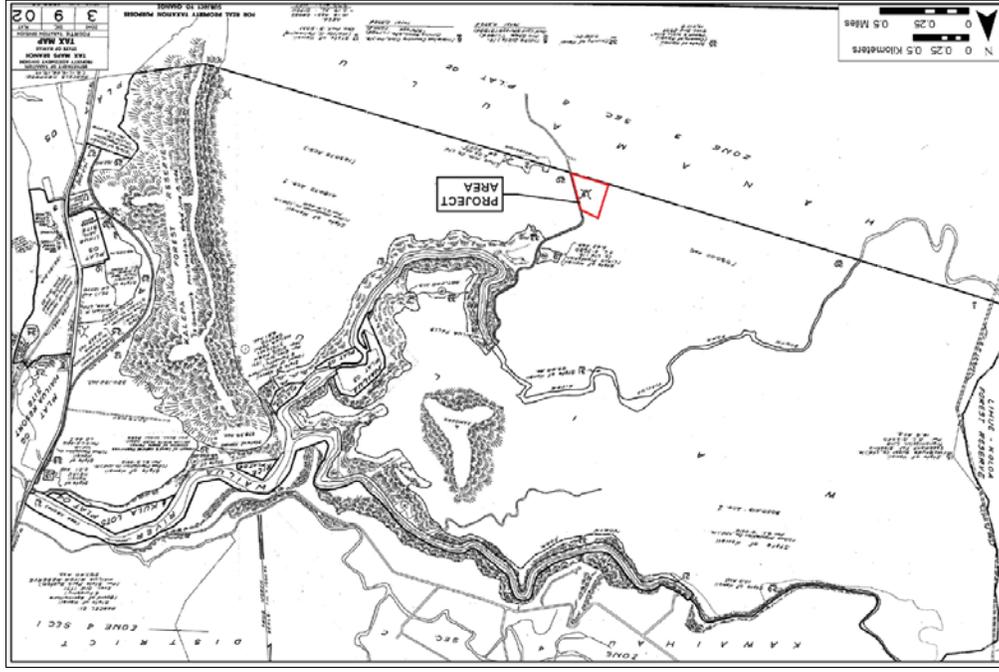


Figure 2. Tax map (TMK) [4] 3-9-002 showing the location of the current project area

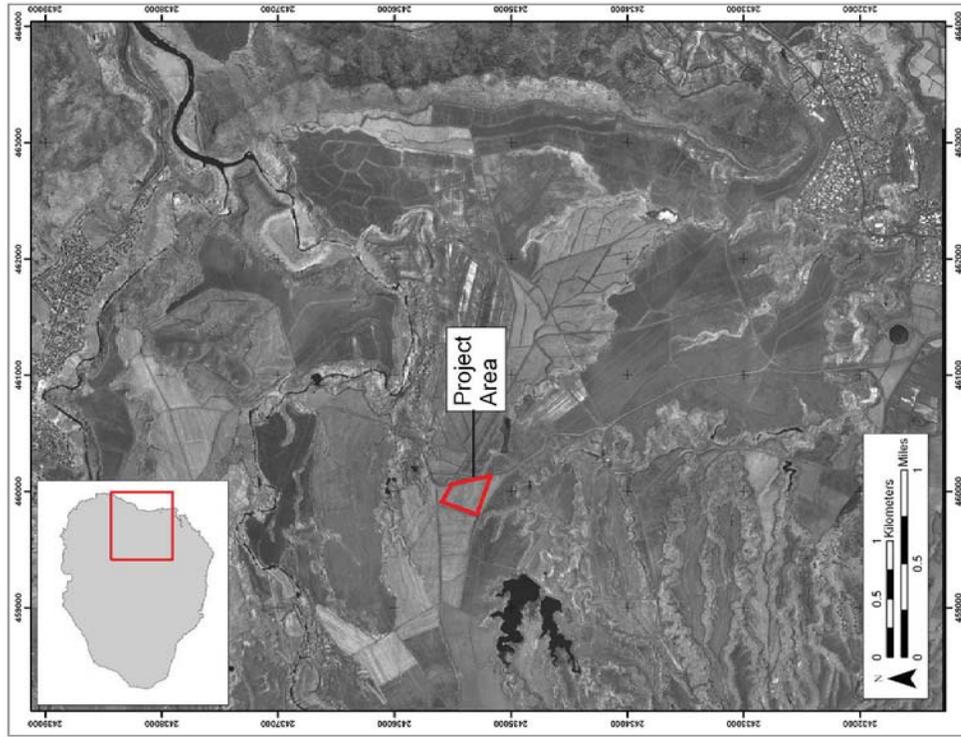


Figure 3. Aerial photograph showing the location of the current project area

1.3 Environmental Setting

1.3.1 Natural Environment

The project area is located approximately three miles inland from the east shore of Kaua'i, approximately one mile southwest of the south fork of the Wailua River in Wailua Ahupua'a. The ahupua'a of Wailua is situated in the old *moku* (or district) of Puna, but today is located in two separate judicial districts. North of the Wailua River is in the district of Kawathau and south of the river, where the project area is located, is the Lāhū'e District. Wailua Ahupua'a is the largest ahupua'a in both district systems, totaling 20,255 acres. Stretching from the shoreline to its *mauka* extent at Wai'ale'ale (elevation 5,080 feet), the ahupua'a encompasses most of the small streams and tributaries that flow into the Wailua River - the largest and singular navigable river in the state of Hawai'i (Handy and Handy 1972:425).

The Wailua River and its tributaries comprise the major drainage system for the central area of the Lāhū'e basin. The Lāhū'e basin is bounded by the Hā'upu Mountains to the south, Wai'ale'ale to the west and the Makaleha Mountains to the north.

According to the U.S. Department of Agriculture (USDA) soil survey (Foote et al. 1972), the sediments within the nearly level expanse of land that comprises the project area consist of Kapa'a Silty Clay 3 to 8 percent slopes (Kk3B) and Kapa'a Silty Clay 8 to 15 percent slopes (Kk3C) (Figure 4). Soils of the Kapa'a Series are described as "well-drained soils on uplands on the islands of Kauai and Oahu... developed in material weathered from basic igneous rock" (Foote et al. 1972). The project area is a.

The project area receives between 1500 and 2000 mm of mean annual rainfall (Giambelluca et al. 1986). Vegetation within the project area includes java plum (*Syzygium cumini*), Christmas berry (*Schinus terebinthifolius*), albizia (*Salcataria molluccana*), bird's nest fern (*Asplenium nidus*), guava (*Psidium guajava*), and exotic grasses.

1.3.2 Built Environment

The area immediately surrounding the project area is fairly rural and is primarily used for agricultural fields. Most development in this area is focused on the south side of Kālepa Ridge near the shore. Mā'alo Road bounds the east side of the project area.

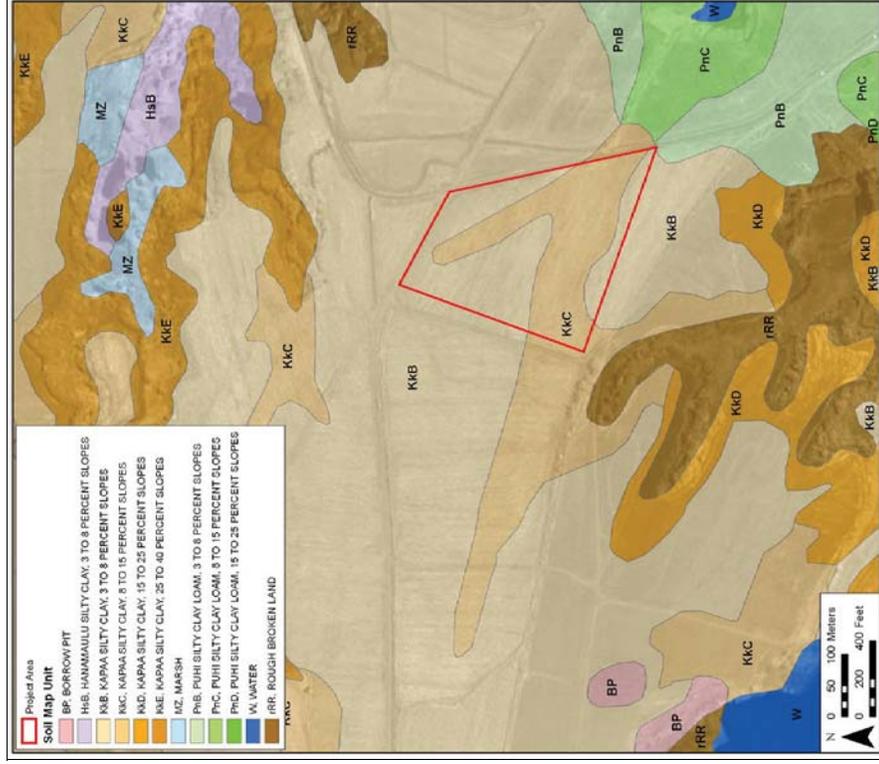


Figure 4. Overlay of Soil Survey of the State of Hawaii (Foote et al. 1972), indicating sediment types within the project area.

Section 2 Methods

2.1 Field Methods

The fieldwork component of this archaeological assessment was accomplished on December 29, 2008 by two CSH archaeologists, Missy Karnai, B.A. and Gerald Ida, B.A. under the general supervision of Hallett H. Hammatt, Ph.D (principal investigator). The fieldwork required approximately two person-days to complete and consisted of a complete pedestrian inspection of the area of the proposed Kālepa Moto-Cross Project.

Fieldwork consisted of a 100% coverage pedestrian inspection through dense vegetation within the project area. The pedestrian inspection of the project area was accomplished through systematic sweeps. The interval between the archaeologists was generally 5-10 m.

2.2 Document Review

Background research included: a review of previous archaeological studies on file at SHPD/DLNR; review of documents at Hamilton Library of the University of Hawai'i at Mānoa, the Hawai'i State Archives, the Mission Houses Museum Library, the Hawai'i Public Library, and the Archives of the Bishop Museum; study of historic photographs at the Hawai'i State Archives and the Archives of the Bishop Museum; and study of historic maps at the Survey Office of the Department of Land and Natural Resources. Historic maps and photographs from the CSH library were also consulted. In addition, Māhele records were examined from the Waihona 'Aina database (www.waihona.com).

This research provided the environmental, cultural, historic, and archaeological background for the project area. The sources studied were used to formulate a predictive model regarding the expected types and locations of historic properties in the project area.

Section 3 Traditional and Historical Background

3.1.1 Origin of the Place Name - Wailua

The most popular and literal meaning of the place name Wailua is "two waters," supposedly referring to the two main forks (north and south) that flow together to form the Wailua River. However, as Lyle Dickey says (1917:15) "this explanation never seems to occur to a native Hawaiian." Other meanings include "water pit" referring to the pools at the bottom of several waterfalls along the river's course (Damon 1931:360) and "ghost or spirit" (Kikuchi 1973:5).

Perhaps even more plausible is the explanation that it comes from the name of the high chief - Wailuanuiho'āno.

Wailuanui-a-Ho'ano was born in 'Ewa, O'ahu, and his descendants went to Kaua'i and to Maui, and wherever they settled they called the land after the name of their ancestor. Wailua was a song of La'akona, ancestor of the 'Ewa family by Ka-ho'ano-o-Kalani. His name, Wailuanui-a-Ho'ano, came from adding the name of his mother [Kamakau 1976:7].

3.1.2 Mythological and Traditional Accounts of Wailua

Archaeological and ethnographic evidence reinforce one another and indicate that Wailua was the religious and political center of Kaua'i during ancient times. There were more *heiau* (temples) in Wailua than in other *ahupua'a* on Kaua'i (see Bennett 1931). The lower portion of the river valley, *maka'i* of Nonou ridge to the north and Mauna Kapu to the south, was known as Wailuanuiho'āno (Wailuanuiho'āno) or alternately Wailuanuilani. It was an area so sacred that it was *kapu* to *maka tānana* or commoners. Only the *ali'i*, their *kahuna* and retainers could reside or visit here (Dickey 1917). Also, there have been at least seven major *heiau* recorded in this relatively small area of the *ahupua'a* (Ching 1968:28). This complex of *heiau* was declared a National Historic Landmark in 1962 (Figure 5).

A survey of traditional mythological literature shows Wailua prominently associated with some of the most famous legendary and historical figures including Maui, Kawelo, Pikoakaala, Laieikawai, Mō'ikeha, La'amaiahiki and Kaillauokekoa (Dickey 1917; Formander 1916-19; Kalākaua 1888; Rice 1923). These associations suggest an ancient and continuous occupation of the area. Martha Yent (1989:1) suggests that because of the traditional connection of several Wailua *heiau* with Mō'ikeha as well as the mythical *menehune*, the religious complex there may have been constructed circa A.D. 1200.

Also pointing to the great antiquity and importance of the settlement at Wailua is that the area is, in recorded traditions, the site of many "firsts." Dickey records claims that the first *kalo* (taro) and *'uala* (sweet potato) on Kaua'i were said to be planted by Mō'ikeha here (Dickey 1917:24). Mō'ikeha's *hānai* (foster) son, La'amaiahiki, brought the first temple drum to the islands and placed it at the *heiau* of Holoholokū at Wailua (Formander 1878-85:II:62). Here also were introduced the first *hau* trees on Kaua'i at Hihikalahau along the river below Polihahu Heiau, and the first coconut tree in the islands at Molohua, just north of the river mouth (Dickey 1917:16, 24, 30).

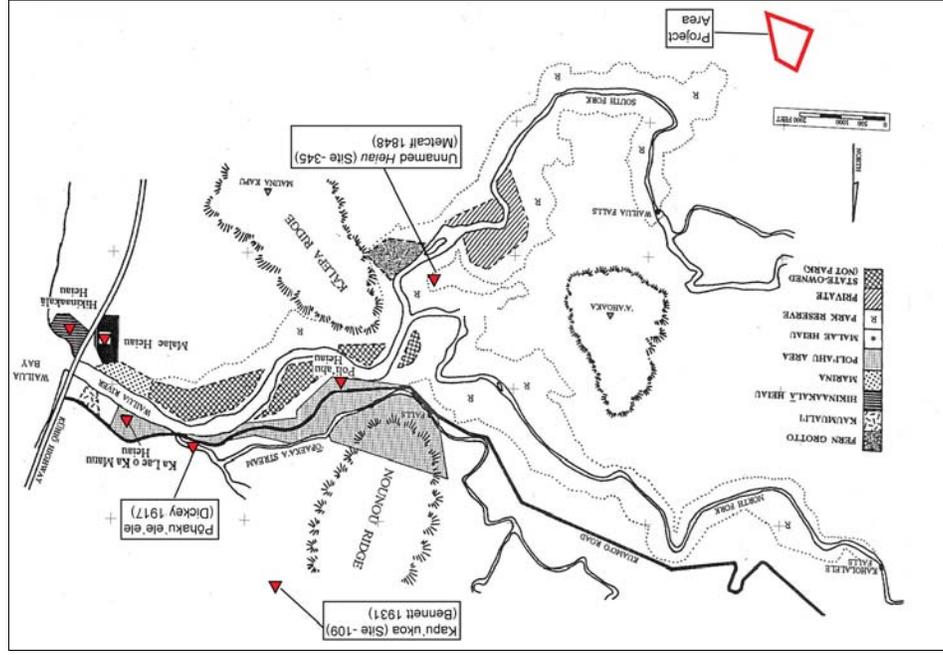


Figure 5. Map of the location of the seven *heiau* of Wailua (some locations approximate), marked by red triangles, in relation to the present project area (modification of figure in Yent 1997b:5)

In relation to the current project area, Ching (1968) mentions two place names of importance originally noted by Dickey (1917). The first is Wailua Falls (or Waiehu Falls, Figure 6), just north of the project area, from which it was said that “King Kaunuaoli used to jump down” (Dickey 1917). There is also a story of a girl whose lover was killed in battle, who, upon looking down and seeing his face in the pools at the base of the falls, jumped down and was killed; “her spirit is still there and at times its wailing may be heard in the water” (Dickey 1917:34). Just above Wailua Falls is a place called Kawelawai, which also has several legends associated with it.

3.1.3 Early Historic Period

Few Westerners visited Wailua in the years just after Cook’s arrival and detailed descriptions of the area are scarce. Most of the voyagers during the late eighteenth and early nineteenth centuries landed at Waimea, on the southwestern side of the island, a location that would eventually overshadow Wailua in its royal importance because of the opportunities there to associate and trade with these foreigners (Lydgate 1920). An 1878 Government Survey map by W.D. Alexander (Figure 6) shows that there is little development near the current project area, although there are fairly extensive agricultural fields – apparently rice – nearby to the south.

However, in March 1793, Wailua was still the “capital” of Kaua’i and Capt. George Vancouver, who had already visited the island several times, both under Capt. James Cook and later as captain of his own expedition, knew this fact well and tried to land there. Although conditions prevented him from anchoring, Vancouver observed the area from off shore and gave this description:

This part seemed to be very well watered, as three other rapid small streams were observed to flow into the sea within the limits above mentioned. This portion of Atouai, the most fertile and pleasant district of the island, is the principal residence of the King, or, in his absence, of the superior chief, who generally takes up his abode in an extensive village, about a league to the southward of the north-east point of the island. Here Enemo the regent, with the young prince Tamooerrie, were now living . . . [Vancouver 1798:221-222].

Within decades of western contact the area lost its ancient importance, and likely its population also. The *ali'i* who enjoyed and benefited from their contact with westerners, spent more time in Waimea - the preferred anchorage for visiting ships. Also the complex of *heiau* at Wailua lost their great significance after the abolishment of the *kapu* system.

Missionary Hiram Bingham passed through Wailua twice in 1824 and visited the birthplace of King Kaunuaoli'i (the *pōhaku ho'ohānau* site), a *hōlua* slide, and the lower falls on the south fork of the river, but left no clues as to the size or extent of the settlement there (Bingham 1847:220, 231).

In October 1840, members of the U.S. Exploring Expedition came to Wailua and recorded the following:

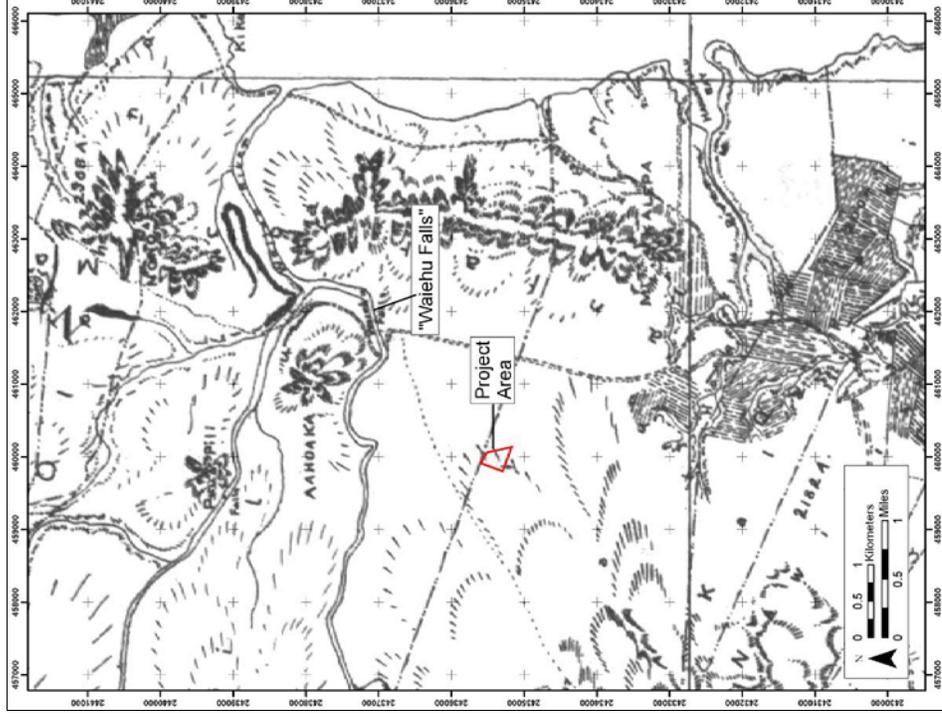


Figure 6. 1878 Government Survey map by W.D. Alexander, showing location of the project area in relation to “Waiehu Falls” (adapted from Alexander 1933)

The country on this route was uninteresting, until they reached Waitua, the residence of Deborah, a chief woman of the islands, readily known as such from her enormous size, and the cast of her countenance. She has a person living with her called Oliva Chapin, who speaks English, and has learned how to extort money. Deborah has about forty men in her district; but they were absent, being employed in the mountains cutting timber to pay the tax to the king.

Near Deborah's residence are extensive fishponds belonging to her, which have been made with great labour: they are of different degrees of saltiness. The fish are taken from the sea when young and put into the saltiest pond; as they grow larger, they are removed into one less salt, and are finally fattened in fresh water. While our gentlemen were there, Deborah received young fish in payment of the poll-tax, which were immediately transferred to her ponds.

Waitua, (two waters,) was formerly a place of some importance. It is situated on a small stream of the same name, in a barren, sandy spot.

Deborah furnished them with a double canoe, to carry them up the river to visit the falls. Taking the western branch, they ascended it for two and a half miles.

There are many good taro-patches and sugar plantations on its banks. They landed in what appeared to have been an old crater, in front of a basin, with high perpendicular bank. The low grounds along the river are extremely fertile, producing bread-fruit, sugar-cane, oranges, etc. The latter, however, are suffering from the blight, and some of the trees were covered with a black smut, produced by a species of aphid.

In ascending, an insulated black rock is passed, known as the "Muu," which has been detached from a high rocky bluff; that is remarkable for the dikes visible in it.

They afterwards ascended the bank, two hundred feet high, and crossed about half a mile to the falls, over a plain covered with grass and wild sugar-cane. The stream was very small, running sluggishly, and passed over a precipice of barren rocks, one hundred and sixty feet in height. Although there is neither tree nor shrub along the stream above the fall, the valley beneath is filled with them; the most conspicuous was the pandanus. The whole scene is picturesque. Below, the falls present a very curious appearance, the wind continually breaking and dispersing the water in heavy showers over a great variety of ferns, which are growing in the crevices of the rocks. The volume of water does not exceed ten hogsheds a minute. In the basin beneath were found many fine specimens of *Neritina granulata*, and two other species were found further down the stream, about four feet below the surface; these were procured by diving. Mr. Rich obtained specimens of the plants.

Mr. Peale found but few birds; ducks were abundant on the river's banks, some of which were killed. Rushes were growing along the banks from eight to ten feet in length, four or five feet over the water; besides these, the banks were covered with hibiscus and ricinus (castor-oil trees), growing wild [Wilkes 1846:IV:68-69].

Deborah Kapule was a member of Kaua'i's royalty. Kapule, the former wife of Kaua'i sovereign Kaunuali'i, took up residence in Waitua in 1835, shortly after the rebellion of 1824 in which Kaunuali'i's son George led a revolt which was put down by forces loyal to Kamehameha II. Deborah, who remained loyal to Kamehameha II, was granted lands at Waitua by Ka'ahumanu, *kuhina nui* or regent of the islands. The fishponds mentioned above as belonging to Deborah Kapule were located on the property of the former Coco Palms.

3.1.4 The Māhele Period

During the 1848 privatization of land in Hawai'i, known as the Māhele, only fifty-one parcels totaling approximately 75 acres were awarded to twenty-seven individual claimants in Waitua. These parcels comprise 122+ *lo'i* (ponded fields), 5 *mo'o* (strips of cultivated land), 24 house lots, and 8 *kūla* (typically pasture claims). All of the parcels are within approximately a mile of the shore. Of the parcels on which *kalo* was cultivated on the north side of the Waitua River, most were watered by *auwai* (irrigation canals) sourced in 'Opaeka'a (or Waituaiki) Stream, as shown in the Lydgate Map of 1920 (Figure 7).

There are 11 other *ahupua'a* on Kaua'i with greater numbers of land claims at the time of the Māhele (1848-1853). When it was the former religious, economic and social center of Kaua'i more land would have been under cultivation, not only for taro *lo'i*, but also for other traditional crops, such as *wauke*, *noni*, and bananas. The fact that so few claimed land in Waitua at the time of the Māhele, no doubt reflects Waitua's changed status after trading ships and missionaries arrived. Communities grew up around the new social and economic centers, especially on the south side of the island and drew people away from their former establishments. By the mid-1800s only a small population, decimated in part by disease, existed in the Waitua River Valley within a mile from the sea. They were displaced within decades by newly arrived farmers and new crops.

All of the *kuleana* (land claim) awardees originally received their land from Deborah Kapule "in the days of Kaikioewa" or "in the days of Ka'ahumanu" indicating a rather short tenancy since around 1825 or later. It is generally understood that following the suppression of the Kaua'i Rebellion of 1824 by the forces loyal to Kamehameha II there was a massive redistribution of Kaua'i lands. Apparently when Deborah Kapule received the Waitua lands from Ka'ahumanu, she served as *konohiki* (overseer) for the *ahupua'a* or in her own words, the *haka'āina* or landlord (*Native Register* 1848:IX:55-56).

It appears likely that the commoner lands of Waitua were far more extensive than what was documented in the *māhele*. On the other hand the general pattern seems likely to have been much the same with Hawaiian activity focused on the river flood plains. No commoner (*kuleana*) Land Commission Awards lie near the present project area.

3.1.5 Post-Māhele Period

Like most well-watered areas in Hawai'i, rice crops began taking over former *lo'i kalo* in the second half of the 1800s. This sharing of the land by the Chinese rice farmers and native *kalo* growers continued through the end of the century. Knudsen (1991:152) visited Waitua in 1895:

We rode through the Lihue Plantation cane fields, passed through Hanamaulu and came to the Waitua River. What a sight! The great river lay clear and placid -

winding away up toward the mountains with rice fields and taro patches filling all the low lands.

By 1935, Handy (1940:67) found no *kalo* being cultivated. The terraces had been taken up by rice, sugar cane, sweet potato and pasture. However:

Kapa'a, Waipouli, Olohena, and Wailua are districts which have broad coastal plains bordering the sea, any part of which would be suitable for sweet potato plantings; presumably a great many used to be grown in this section. There are a few flourishing plantations in Wailua at the present time [Handy 1940:153].

3.1.6 The Plantation Era

The Lihue Plantation Company Ltd. began in 1849 as the Henry A. Pierce & Company (Figure 8). The first stretch of the Lihue Plantation Company railroad was laid and the first sugar moved by rail on January 7, 1892. By 1921, the Lihue Plantation Co. was reputed to have the most modern and extensive railroad system in the islands. Figure 9 shows portions of the railroad system traversing the field along the northern boundary of the project area. In that same year the Lihue Plantation Company sponsored the separately incorporated Ahukini Terminal & Railway Company, which "was inaugurated as a common carrier railroad to operate between Ahukini and Kealia." (Condé and Best 1973: 166). In 1934, the Lihue Plantation Co. absorbed the A. T. & R., which then became an operating part of its parent company. The conversion from railroad to truck hauling began in 1957 and was completed by 1959. The 1959 annual report noted "With the completion of the harvesting season this year (October 10, 1959) hauling cane over our railroad system comes to an end. We are the last plantation in the island to give up the railroad and move to truck hauling. This marks the end of an era" (Condé and Best 1973: 165-169). By the 1960s very little activity within the vicinity of the project area is apparent, other than a few private roads, Mā'alo Road, Aii Reservoir and the Wailua River State Park (Figure 10).

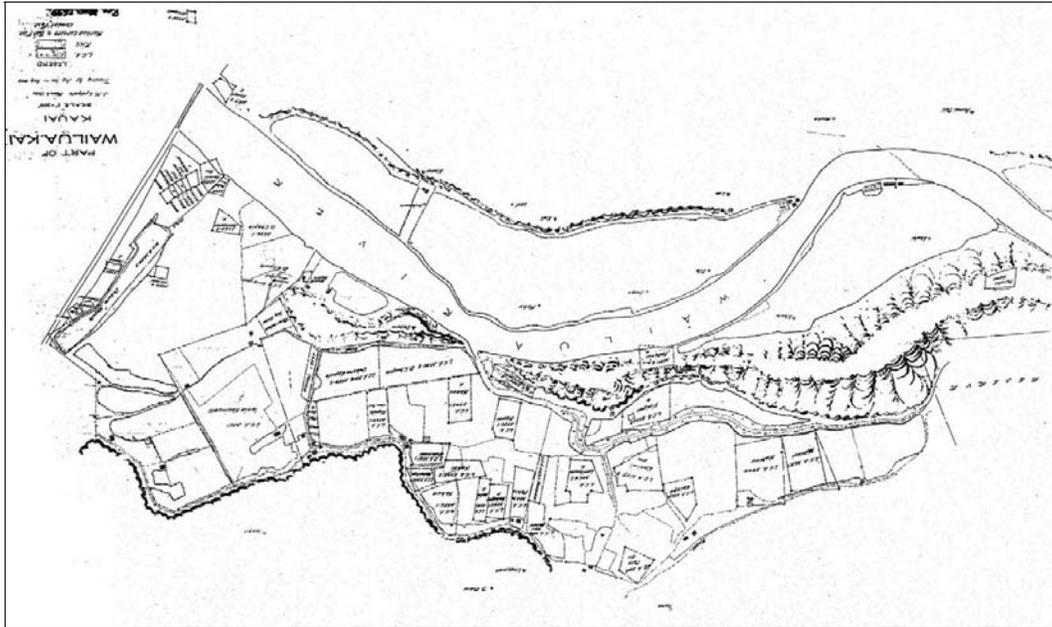


Figure 7. 1920 map by John Lydgate, showing concentration of LCA awards in Wailua Kai focused on the flood plain on the north side of the river (present project area is well to the southwest of this map)

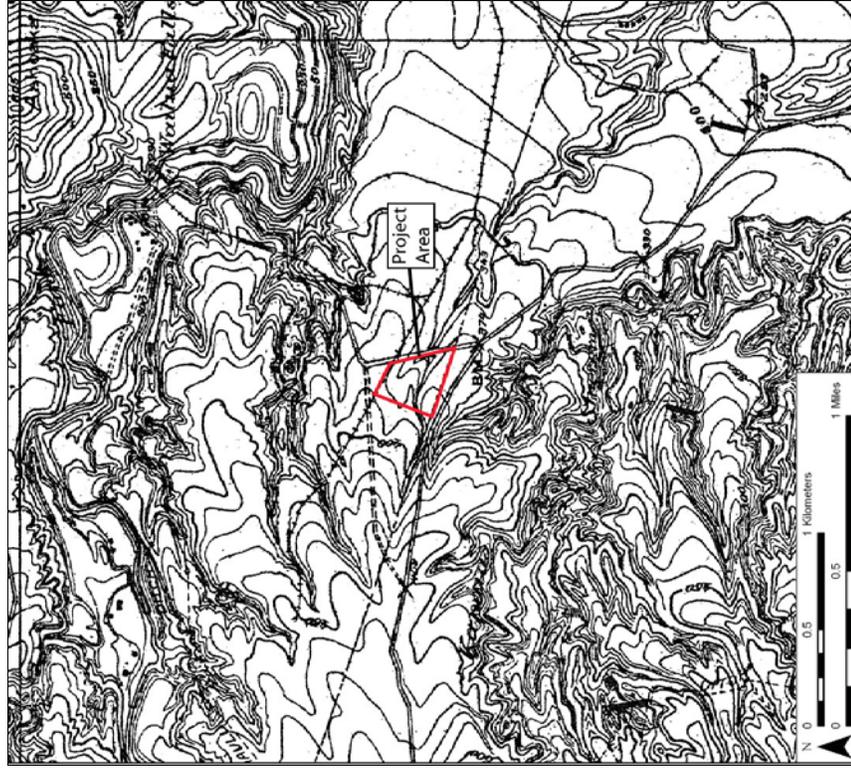
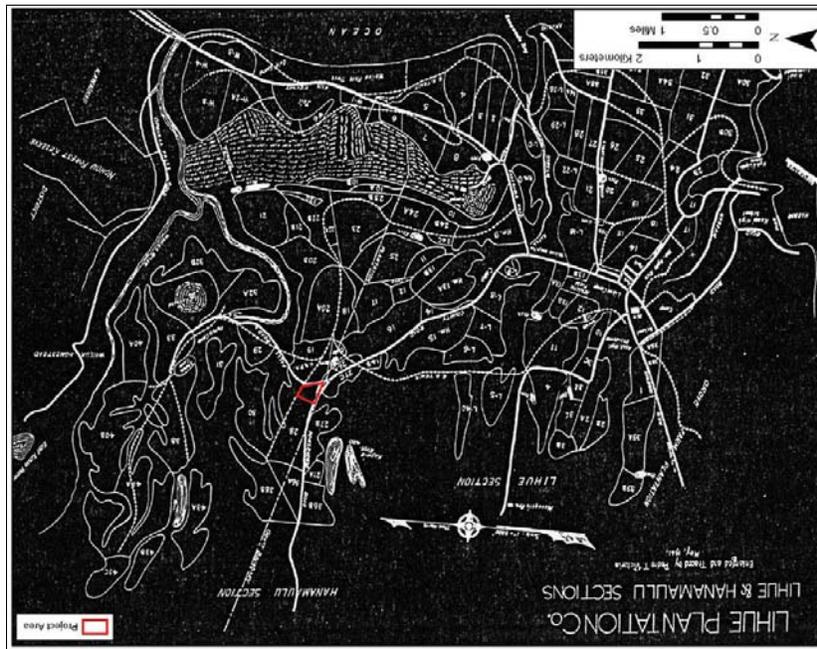


Figure 9. Portion of 1910 U.S. Geological Survey quad, showing the project area. Note the railroad along the north edge and road along the east edge.

Figure 8. Lihue Plantation Co. map showing intensive sugar cane cultivation in and surrounding the project area (Field 28) and a railroad line along the north edge of the project area. Note that map is as originally drawn, with north to the reader's right.



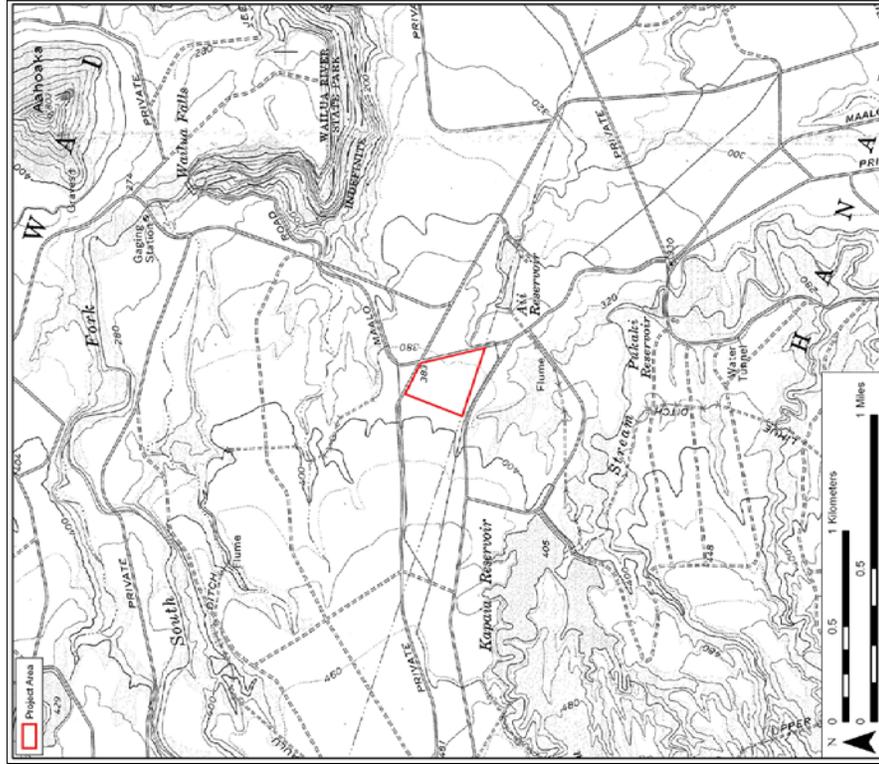


Figure 10. Portion of 1963 U.S. Geological Survey, showing the project area

Section 4 Previous Archaeological Research

4.1 Previous Archaeological Research and Finds in Wailua Ahupua'a

Previous archaeological project areas in Wailua Ahupua'a are shown in Figure 11. Table 1 provides a list of archaeological research conducted within the *ahupua'a*, including columns for source, location, nature of study, and findings. Figure 12 shows the location of archaeological sites identified within Wailua Ahupua'a in relation to the project area, and Table 2 is a list of archaeological sites within the *ahupua'a* which includes columns for state site numbers, site type, location and reference. Sites and project areas nearest the project area are denoted by an asterisk.

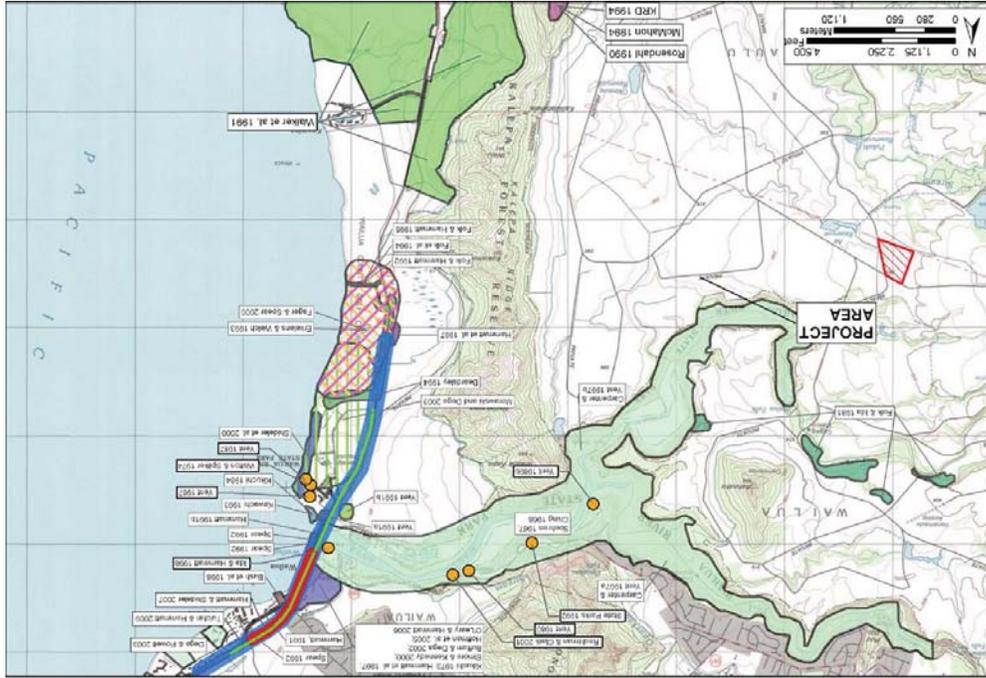
4.2 Archaeological Research in the Vicinity of the Project Area

Extensive archaeological work has been conducted in Wailua Ahupua'a, but nearly all studies have focused on either the coastal areas or the Wailua River banks. Relatively very little work has been conducted near the current project area, *mauka* of the Kālepa Ridge. There have been a few studies that specifically address the south fork of the Wailua River, which is near the present project area. Both Soehren 1967 and Ching 1968 conducted broad reconnaissance surveys of the Wailua River valley and its north and south fork, identifying a variety of archaeological sites including several *heiau* (see Figure 5), habitation areas, and fairly extensive agricultural modification. Later work in the *mauka* portions of the *ahupua'a* include archaeological assessments by Folk and Ida (1981) and Carpenter and Yent (1995); these studies primarily noted agricultural terraces along the banks of the Wailua River, with more extensive archaeological finds closer to the river mouth. Nearly all archaeological reports in the vicinity of the project area note the historic land modification for extensive rice and/or sugar fields dating from the late 1800s.

Table 1. Previous Archaeological Studies near the Project Area

Source	Location	Nature of Study	Findings
Thrum 1906	Mouth of Wailua River	Listing of <i>heiau</i>	Lists 4 <i>heiau</i> : Malae, Poi-’ahu, Hohohokū and Hikinaakalā
Bennett 1931	Mouth of Wailua River	Archaeological reconnaissance survey of <i>heiau</i> and place of refuge	Describes 6 sites- Site 103: Dune burials, Site 104: Malae Heiau, Site 105: Hikinaakalā Heiau, Site 106: Hohohokū Heiau and sacred grove, Site 107: Poi-’ahu Heiau and Site 109: an unnamed <i>heiau</i>
Soehren 1967*	Wailua River Valley including North and South Forks	Field Trip Report	Locates and briefly describes 34 sites with B.P.B.M. site numbers A1-1 to A1-34
Ching 1968*	Wailua River Valley including North and South Forks	Surface Survey	Locates and briefly describes Soehren’s (1967) 34 sites and adds sites 35-58 with B.P.B.M. site numbers A1-1 to A1-58
Handy and Handy 1972	Archipelago-wide, discuss Wailua Ahupua’a	Native Planters Study	Discuss agricultural pattern at Wailua Ahupua’a
Kikuchi 1973	Coco Palm Hotel, north of Wailua River, <i>mauka</i> of Kūhiō Highway	Burial Study	Discusses 34 burial finds, other features and artifacts
Kikuchi 1974	Mouth of Wailua River	<i>Heiau</i> Study	Hikinaakalā Heiau
Walton and Spilker 1974	Lydgate State Park Pavilion Project, south of river mouth, <i>makai</i> of Kūhiō Highway	Assessment and sub-surface testing (7 post hole digger excavations)	Testing did not locate any archaeological materials
Kikuchi et al. 1976	Hohohokū and Pohaku	Study of oral documentation and historical records	Compendium of information regarding these sites
Cox 1977	Wailua Golf Course	Burial Recovery project	13 burials located (Sites -542 to -546 and -819)
Yent 1980	North side of <i>makai</i> portion of Wailua River	Evaluation of bellstone	Bellstones located, described and traditions are given along with preservation recommendations

Figure 11. Previous archaeological studies in the general vicinity of the project area



Source	Location	Nature of Study	Findings
Folk and Ida 1981*	South fork of the Wailua river	Archaeological Reconnaissance Survey	Re-located several of the sites discussed in Ching 1968, recorded several agricultural terraces
Kikuchi 1984	South of Mouth of Wailua River	Mapping of Petroglyphs	Survey of petroglyphs noted 36 figures, more possibly in river and bulldozer damage from clearing mouth of river
Kikuchi 1987	Malae Heiau, South of mouth of Wailua River	Adze study	Discusses adze fragments from Malae Heiau
Yent 1987	South of Mouth of Wailua River	Demolition of old comfort station and corings for new comfort station	No subsurface cultural deposits located
Dunbar 1988	Wailua Complex of Heiau	National Register of Historic Places Inventory-Nomination Form	"One of the most important site complexes in the Hawaiian Islands"
Yent 1989	South side of the mouth of Wailua River Hikinaakala Heiau and Heiau and Hau'ola area	Mapping and testing of Site 50-30-08-105 in 1986 (6 1m ² excavations)	Concluded 2 periods of occupation, one historic, and an earlier period may or may not be associated with heiau building
Hammett 1991	Wailua River Mouth	Subsurface Testing	No cultural deposit observed
McMahon 1991	Eastern margin of Sleeping Giant Mountain on the north edge of Wailua Ahupua'a	Archaeological Investigations	No significant findings
Walker et al. 1991	Work on both sides of Kūhiō Hwy. At the south end of the ahupua'a	Archaeological inventory survey for a master plan	Identified no sites
Yent 1991a	Mouth of Wailua River	Archaeological Testing	Although several fill layers and extensive ground alteration was indicated, a possible pre-contact cultural deposit was noted; no site number was assigned

Source	Location	Nature of Study	Findings
Yent 1991b	Malae Heiau South of mouth of Wailua River	Park Planning	Discusses Malae Heiau in context of proposed incorporation into Wailua River State Park
Yent 1991c	South side Wailua River Mouth	Damage Assessment	Summary of petroglyph site 50-30-08-105A
Folk and Hammett 1992	Wailua County Golf Course from coast to Kūhiō Highway	Assessment for Fiber Optic Cable	Examination of exposed strata revealed no cultural material; informants described burials in the golf course area.
Kikuchi and Remoaldo 1992	Island-wide, B005 on north bank of makai Wailua River	Cemeteries of Kaua'i	Identifies site 50-30-08-B005-Poli'ahu Japanese Cemetery
Spear 1992	North of Wailua River mouth, makai of Kūhiō Highway	Sub-surface Testing (7 backhoe trenches)	No significant findings; two charcoal lenses noted.
State of Hawaii 1992	Poli'ahu Heiau	Interpretive Signage Plan	Summarizes data on Poli'ahu Heiau
Yent 1992	Mouth of Wailua River	Hurricane Damage Assessment	Damage report
Erkelens and Welch 1993	Kaua'i Community Correctional Center west of Kūhiō Highway and the Wailua County Golf Course	Archaeological assessment	Summarizes literature and notes probability of burials
Kawachi 1993	Mouth of Wailua River	Survey of river mouth (4-1-04-01)	Discovered unreported submerged petroglyph, no site number assigned
Beardsley 1994	Kaua'i Community Correctional Center west of Kūhiō Highway and the Wailua County Golf Course	Sub-surface testing for sewer line	One burial designated Site -9357 regarded as part of Bennett's site 50-30-08-103 but no other significant findings

Source	Location	Nature of Study	Findings
Folk et al. 1994	Wailua County Golf Course from coast to Kūhiō Highway	Archaeological Inventory Survey with sub-surface testing	No significant finds
Hammatt et al. 1994	Lands <i>mauka</i> of Kūhiō Highway	Archaeological Assessment	Identifies archaeological concerns including: 1) impact on the Wailua Complex of <i>heiau</i> , 2) impact on potential burial sites in the Wailua Golf Course and the Coco Palms Resort area, and 3) impact on existing and former Wailua marshlands in the vicinity of the County Correctional facility and on the north side of Wailua River
Flores 1995	Malae (Malaea'akoa) Heiau; south of Wailua River mouth, <i>mauka</i> of Kūhiō Highway	Historical and Cultural Research	Data on the <i>heiau</i> (Site 50-30-08-104) and Wailua Ahupua'a in general is presented
Folk and Hammatt 1995	Wailua County Golf Course from coast to Kūhiō Highway	Monitoring fiber-optic cable conduits	Found remains of eight individuals from disturbed, possibly secondary, deposits
Hammatt et al. 1997	Lands <i>mauka</i> of Kūhiō Highway	Archaeological Inventory Survey for Kūhiō Highway widening	1 new site found north of river, 50-30-08-756; a terrace
Carpenter and Yent 1997a	North Fork of the Wailua River	Archaeological Reconnaissance	Notes high potential for extensive archaeology
Carpenter and Yent 1997b	North Fork of Wailua River, Fern Grotto	Archaeological Reconnaissance	Found one site near the Fern Grotto Area, at a proposed kayak landing site
Yent 1997a	Extreme south, coastal Wailua, <i>mauka</i> of Kūhiō Highway	Burial Treatment and Monitoring Plan	Plans to attend proposed work at a temporary automobile storage facility close to Dume Burials sites
Yent 1997b	Malae Heiau, south of Wailua River, <i>mauka</i> of Kūhiō Highway	Vegetation Removal and Landscaping Plan	Outlines methodology and guidelines for vegetation removal at Malae Heiau

Source	Location	Nature of Study	Findings
Yent 1997c	Malae Heiau	Vegetation Removal Report	Summarizes work
Bush et al. 1998	Parcel between Papaloa Road and beach	Inventory Survey	No cultural finds
Fager and Spear 2000	Wailua Golf Course	Archaeological Monitoring Report	Documents several burials
Shideler et al. 2000	Lydgate Park	Inventory Survey	Recommends monitoring during proposed construction of bike trail
Yent 2000	Holoholokū and Hikina akalā sites	Restoration Report	Describes restoration of <i>heiau</i> and birthstones
Hammatt 2001	Along Kūhiō Highway	Archaeological Assessment	Indicates high potential for encountering historic properties north of Wailua River during proposed installation of fiber optic cable
Rechtman and Clark 2001	Parcel between Kuamo'o Road and Wailua River	Inventory Survey	No cultural findings
Shideler et al. 2001	Lydgate Park	Archaeological Assessment	Summarizes work
Bufnum and Dega 2002	Coco Palms	Archaeological Monitoring Report	Cultural layer identified as site -1711
Dega and Powell 2003	Kūhiō Hwy.	Archaeological Monitoring Report	Feature of site -1711 described
Hammatt and Shideler 2003	Kūhiō Hwy. Bypass options	Archaeological Assessment	Summarizes work, describes six new sites (667, 668, 676-679)
Morawski and Dega 2003	Lydgate Park	Monitoring Report	Two burials, two isolated skeletal finds and a cultural layer (Site -356)
Hammatt 2005	Coco Palms resort, lagoon feature	National Register of Historic Places Nomination Form	Weuwei-Kawai-iki Fishpond; Debora Kapule's Fishponds LCA 3111/3559
Hoffman et al. 2005	Coco Palms resort	Archaeological Inventory Survey with Subsurface Testing	Three sites recorded: two historic fishponds, an historic burial ground, and an intermittent traditional cultural layer

Table 2. Archaeological Sites near the Project Area

Site 50-30-08-	Site Type/Name	Location	Size/Comments	Reference
B005	Poli'ahu Japanese Cemetery (Site 50-30-08-675)	South side Kuamo'o Road (Poli'ahu Road)	Discrete Historic Cemetery approx 118 burials, interments as late as 1979	Kikuchi and Remoaldo 1992:66-74
103	Dune Burials	Wailua Golf Course, large area, not well defined; primarily seaward of Kihio Hwy, N of Wailua Golf Course club house	Minimum number of individuals encountered to date approx. 100; consultation and monitoring in vicinity of Wailua Golf Course indicated	Bennett 1931:125; Erkelens & Welch 1993; Beardsley 1994; Fager & Spear 2000, Morawski & Dega 2003
104	Malae Heiau	South bank of Wailua River, 200 feet mauka of Kūhiō Highway	Part of Wailua Complex of Heiau National Historic Landmark - defined area 2 acres, <i>heiau</i> and buffer 9.49 acres, in State Park, Yent 2000 specifies view corridor concerns	Thrum 1906:40; Bennett 1931:125; Yent 1991b; Yent 2000
104A	Adze Workshop/ flake scatter	In cane field N and NE of Malae Heiau to road to marina	Within 9.49 acre Malae Heiau and buffer parcel in State Park	Kikuchi 1987:1-9; see Yent 2000
105	Hikinaakalā Heiau and Pu'uhōnua o Hauola	Southern side of the mouth of Wailua River	Part of Wailua Complex of Heiau defined area 2.3 acres in State Park	Thrum 1906:40; Bennett 1931:125-126; Kikuchi 1974; Yent 1989
106	Kalaeokamanu (Holoholokū) Heiau & the Pōhaku Ho'ohānau	North bank of the Wailua River at the base of Pu'ukūi	Part of Wailua Complex of Heiau defined area 37,960 sq ft, in State Park	Bennett 1931:127; Damon 1934
107	Poli'ahu Heiau	Wailua River State Park	Part of Wailua Complex of Heiau defined area 49,140 sq ft, in State Park	Thrum 1906:40; Bennett 1931:127
205*	Makea, agricultural terraces	South fork of Wailua River	Land used for rice farming and pasture lands in modern times	Ching 1968:24

Site 50-30-08-	Site Type/Name	Location	Size/Comments	Reference
206*	Mill site	South fork of Wailua River	Rice mill, appears on map dated to 1900	Ching 1968:24
207*	Agricultural terraces	South fork of Wailua River	Agricultural terraces, planted in rice	Ching 1968:24
208*	'Auwai	South fork of Wailua River	Only some portions intact	Ching 1968:25
209*	Agricultural terraces	North of Wailua Falls	Not particularly extensive	Folk and Ida 1981
217 (Soehren & Ching Site 10)	Kauhilahau agricultural site	S. of <i>makai</i> portion of Wailua River, E quarter in Wailua State Marina	Virtually no data, size unclear, further work in area indicated; in State Park	Ching 1968:16
243 (Soehren & Ching Site 29)*	Flats, probably agricultural terraces	South fork of Wailua River	Virtually no data	Ching 1968:25
244 (Soehren & Ching Site 30)*	Probable agricultural terraces	South fork of Wailua River	Virtually no data	Ching 1968:25
245 (Soehren & Ching Site 31)*	Stone platform	South fork of Wailua River	14 x 14 (feet?), stone platform; possible house site	Ching 1968:25
246 (Soehren & Ching Site 32)*	Agricultural terraces	South fork of Wailua River	Agricultural terraces	Ching 1968:25
247 (Soehren & Ching Site 33)	Kamalau agricultural site	N. of Mauna Kapu on flats	Virtually no data, size unclear, further work in area indicated; in State Park	Ching 1968:16
250 (Soehren & Ching Site 11)	Hauloa agricultural site	N. of <i>makai</i> portion of Wailua River	No data, size unclear, further work in area indicated; in State Park	Ching 1968:16

Site 50-30-08-Name	Site Type/Name	Location	Size/Comments	Reference
321 (Soehren and Ching Site 12)	'Anawai, earthen ditch	N of Confluence of North and South Forks, Wailua River (associated with sites 218 and 250) along base of valley wall	Little data, length unclear, further work in area indicated; in State Park	Soehren 1967; Ching 1968:16; Yent 1989:7; Carpenter and Yent 1997:35
325 (Ching Site 38)	Kamalau and Kulaina storied rocks	N of Mauna Kapu, at <i>mauka</i> end of site -247 one rock in middle of river below Poli'ahu <i>Heiau</i>	Site consists of two storied rocks; description insufficient for identification; in State Park	Ching 1968:16-18
326 (Ching Site 39)	Kamalau and Kulaina storied rocks	N of Mauna Kapu, at <i>mauka</i> end of site -247 one rock in middle of river below Poli'ahu <i>Heiau</i>	Site consists of two storied rocks; description insufficient for identification; in State Park	Ching 1968:16-18
329 (Ching Site 42)	Ahuhauli, reported home and burial ground of Kumauna/Lono Kelekoma family	North of <i>makai</i> portion of Wailua River "near the little hillock, Ahuhauli, where the one (lone) tall coconut tree stands" (Salisbury, 1936)	Virtually no data, size unclear, further work in area indicated; in State Park	Ching 1968:14, Salisbury 1936
330 (Ching Site 43)	Kaluamokila legendary cave through hill from N to S, south end just above water level; sealed with a stone,	North of <i>makai</i> portion of Wailua River	Virtually no data, may only be legendary, further work in area indicated; in State Park	Ching 1968:13
331 (Ching Site 44)	Old Rice Mill	North of Wailua River mouth, just <i>mauka</i> of Smith's and Doris' old boat landing	Still stood in 1953, only foundations are left in State Park, testing and marker recommended;	Ching 1968:12-13

Site 50-30-08-Name	Site Type/Name	Location	Size/Comments	Reference
334 (Ching Site 47)	Pōhaakū'ele'ele Heiau (and several other sites reported by Dickey [1917:29])	"On the <i>makai</i> tip of a hill near the eastern end of the promontory between the two northern branches of the Wailua River" (Dickey 1917:14)	Virtually no data, some uncertainty about the location, size unclear, further work in area indicated; in State Park	Dickey 1917:29; Ching 1968:14-15
335 (Ching Site 48)	Bellstone(s)	North of <i>makai</i> portion of Wailua River	Part of Wailua Complex of Heiau National Historic Landmark - defined area N.A.; in State Park	Ching 1968:14
337 (Ching Site 50)	Hihiaikalahu "the place where the first <i>haui</i> trees of Kaua'i grew"	North of Mauna Kapu, south of Poli'ahu	Seemingly just a legendary <i>haui</i> tree grove, size unclear; in State Park	Ching 1968:16
340 (Ching Site 53)	Agricultural Terraces "indicated as being in rice in 1900 and 1923"	North of confluence of North and South Forks, Wailua River	Virtually no data, size unclear, further work in area indicated; in State Park	Ching 1968:18
342 (Ching Site 55)	Agricultural flat "appears as rice land on Monsarratt's map of 1900 and Wall's map of 1923"	North of <i>makai</i> portion of Wailua River	Virtually no data, size unclear, further work in area indicated; in State Park	Ching 1968:13
343 (Ching Site 56)	<i>Kūla</i> "indicated as <i>kūla</i> land on Wall's map of 1923"	South side of <i>makai</i> portion of Wailua River	Virtually no data, size unclear, further work in area indicated; in State Park	Ching 1968:16
356	Pre-contact cultural layer	Lydgate Park	Extent of the cultural layer remains unknown	Morawski and Dega 2003

Site 50-30-08-	Site Type/Name	Location	Size/Comments	Reference
502	Wailua Complex of Heiau	Mouth of the Wailua River	Includes five discrete parcels, sites: -104, -105, -106, -107, -335; in State Park	1962 National Register of Historic Places; 1981 Hawai'i Register of Historic Places
542	Burial	North part of Wailua County Golf Course	Burials part of Site -103 consultation and monitoring in vicinity indicated	Cox 1977
543	Burial	North part of Wailua County Golf Course	Burials part of Site -103 consultation and monitoring in vicinity indicated	Cox 1977
544	Burial	North part of Wailua County Golf Course	Burials part of Site -103 consultation and monitoring in vicinity indicated	Cox 1977
545	Burial	North part of Wailua County Golf Course	Burials part of Site -103 consultation and monitoring in vicinity indicated	Cox 1977
546	Burial	North part of Wailua County Golf Course	Burials part of Site -103 consultation and monitoring in vicinity indicated	Cox 1977
634	Extensive wetlands, former <i>lo'i</i> area	North bank of Wailua River	130-acre; further archaeological work indicated	Hammatt et al. 1997:68,70
660	Burial	N. end of Coco Palms; N of Wailua River mouth	1 historic burial, consultation and monitoring indicated	Elmore and Kennedy 2000
667	Linear Terrace	North side of pasture access road, <i>mauka</i> of Smith's Tropical Paradise	Approx. 2 m by 5 m long, further archaeological work indicated	Hammatt and Shideler 2003
668	Cement slabs inscribed with year 1926	North central portion Smith's Tropical Paradise	An area 4 m by 5 m., further archaeological work indicated	Hammatt and Shideler 2003

Site 50-30-08-	Site Type/Name	Location	Size/Comments	Reference
675	Poliahu Japanese Cemetery	East end of Pu'u Ki Ridge above Pōhaku Ho'olāhau and Holohele Heiau	(formerly known as 50-30-08-B005)	Hammatt and Shideler 2003
676	Alignments and enclosures	Greatly modified as a contemporary sacred site – possibly former <i>heiau</i>	Recent modifications make it difficult to discern what is a traditional Hawaiian construction	Hammatt and Shideler 2003
677	Two lava tubes	Just S. of Kuamo'o Road in the N side of Pu'u Ki 100 m W of Pōhaku Ho'olāhau	No cultural material observed but traditional use likely	Hammatt and Shideler 2003
678	Terrace	central Pu'u Ki summit ridge	modest alignment on top of ridge	Hammatt and Shideler 2003
679	Overhang rock shelter	N bank of Wailua River, SW portion of Pu'u Ki ridge	No cultural material observed but traditional use likely	Hammatt and Shideler 2003
680	Two historic fishponds	Coco Palms water feature	Approximately the same size and location as the Coco Palms water feature	Hoffman et al. 2005
681	Burial ground	SE corner of the Coco Palms	Size and extent uncertain	Hoffman et al. 2005, Kikuchi 1973
756	Terrace	North bank of Wailua River	In State Park, 30 m by 12 m-further archaeological work indicated	Hammatt et al. 1997:68,70
761	Burial	North bank of Wailua River mouth	Consultation and monitoring in vicinity indicated	Ida and Hammatt 1998
819	Burial	North part of Wailua County Golf Course	Burials understood as part of Site -103 consultation and monitoring in vicinity indicated	Cox 1977

Site ID- 30-08- 1711	Site Type/ Name	Location	Size/Comments	Reference
	Cultural layer	Coco Palms Resort	Extent of cultural layer remains unknown	Buffum & Dega 2002; Dega & Powell 2003:38-49), Hoffman et al. 2005
1980	Burial	Wailua County Golf Course east of County Correctional Facility, half way to the sea	Minimum number of eight individuals encountered	Folk and Hammatt 1995
9357	Burial	County Correctional Facility	Burial understood as part of Site - 103, consultation and monitoring in vicinity indicated	Beardsley 1994

* Indicates archaeological sites nearest the current project area

4.3 Background Summary and Predictive Model

Archaeological, historical, and ethnographic evidence indicate that Wailua was the religious and political center of Kaua'i during ancient times. The Wailua River, along both shores, was the most important high-status area on Kaua'i in pre-contact times. This area was the royal center where the high chiefs and chiefesses carried on their business when they were not traveling about the island(s), and where they entertained visitors. Today we see a small portion of this royal center when we look at the remnants of five of the *heiau* (where official decision making was carried out), the Hauola Pu'uhooua (place of refuge), the birthstones, the royal coconut grove, the bellstone and the royal fishponds. There exist no visible surface remnants of the chiefly homes, the supporting *lo'i* and *kula* lands, the places of recreation, the burial place called Mahumapuoni (just *makai* of Kapule's fishponds), the fish traps or the canoe landings.

The Wailua Complex of Heiau, on both sides of the Wailua River, was the focus of political and religious activity. The *makai* section of the *ahupua'a* near the river mouth was the focus of daily life for the royal families. Some house sites were south of the river on the dunes (*makai* of the present highway), but the majority of house sites were on the north side of the river just *maka* of the highway. Inland, along the floodplain, are remnants of the many *lo'i* parcels and other house sites as well. There is archaeological evidence that agricultural use of the land stretched far *maka* along the Wailua River and its tributaries, and at one time supported a relatively large population. Archival records mention other resources, including bananas, wood for canoes and housing, and *kukui* (candlenuts) for lights as coming from farther inland.

While extensive archaeological work has been conducted in Wailua Ahupua'a, little work has been conducted near the current project area, *maka* of the Kālepa Ridge. The sites identified

nearest the current project area consist of primarily agricultural sites including terraces and *'auwai*. Nearly all archaeological reports in the vicinity of the project area note land disturbance associated with extensive rice and/or sugar fields dating from the late 1800s.

Historic and modern agricultural activity has drastically impacted the landscape in the locality of the project area. It is probable that pre-contact agricultural and habitation activity areas were at one time located near the project area, especially along the Wailua River and its tributaries. Disturbance, however, from extensive rice and sugarcane farming has likely destroyed any remains of pre-contact archaeology within the project area. Due to the extensive commercial agricultural utilization of this area, it is possible that some plantation-era infrastructure or artifacts may be encountered in the project area.

Section 5 Results of Fieldwork

No significant historic properties were identified within the current project area. Initially, a single potential historic property, an earthen ditch (CSH 1), was located along the west side of Mā'alo Road (Figure 13). Following further investigation, the CSH 1 ditch was determined to be associated with drainage improvements to Mā'alo Road. The age of the CSH 1 ditch could not be conclusively established. Therefore, CSH 1 was not considered a significant historic property or given a State Inventory of Historic Properties (SIHP) number.

5.1 CSH 1 Description

CSH 1 is an earthen ditch that extends for approximately 329.0 m along the west edge of Mā'alo Road, the eastern boundary of the project area (Figure 14). The ditch consists of earthen walls that measure approximately 2.0 m apart along the top edge slanting to a depth of approximately 1.2 m (Figure 15). The bottom of the ditch is generally flat measuring approximately 0.8 m wide. The ditch does not run continuously through the project area and beyond to the north and south but is disjointed, having been filled in at the north and south extents of the current project area. A section of the same ditch was observed along Mā'alo Road to south, outside of the current project area, indicating that previously the ditch ran continuously along the roadside. Thick vegetation interspersed with modern trash blanket the majority of the ditch within the project area (Figure 16). Modern trash includes cans, glass bottles, lumber, and carpeting (Figure 17).

CSH 1 likely functions as a drainage improvement constructed to address runoff from Mā'alo Road. Due to the lack of conclusive evidence of age and its association with a modern roadway, CSH 1 was not considered a significant historic property.

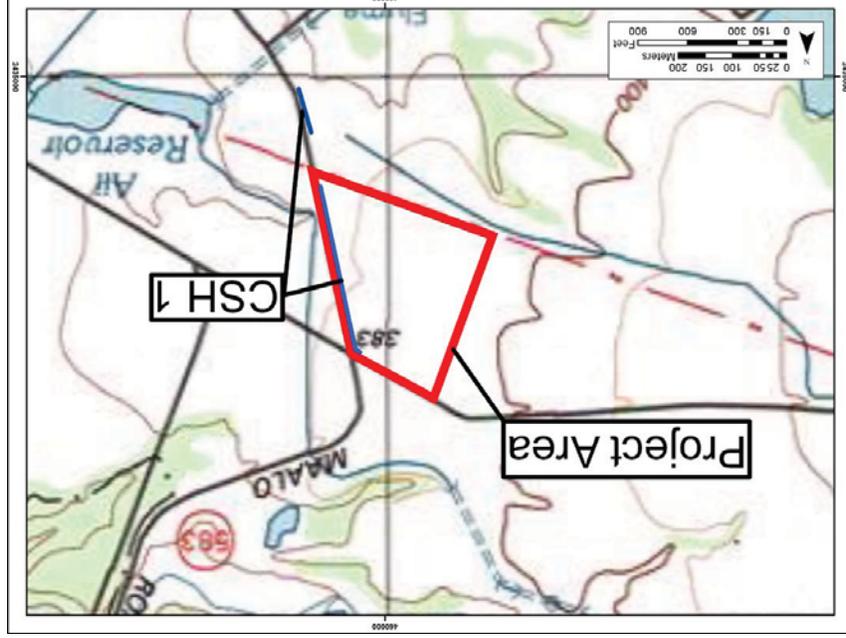


Figure 13. Portion of 1996 U.S.G.S. 7.5-minute topographic Kapa'a quadrangle, showing the location of CSH 1 (determined to be just a road drainage ditch)



Figure 14. General view of the project area, view to north



Figure 15. CSH 1 earthen ditch showing sidewall, view to west



Figure 16. CSH 1 earthen ditch showing extent of vegetation, view to west



Figure 17. CSH 1 earthen ditch showing dumping of modern trash

Section 6 Summary

In compliance with and to fulfill applicable Hawai'i state historic preservation legislation, CSH completed this archaeological assessment for the proposed Kālepa Moto-Cross Project. The area of potential effect is defined as the entire 18-acre project area.

Per the Hawai'i state requirements [HAR Chapter 13-276], this archaeological assessment investigation includes the results of cultural, historical, and archaeological background research, and fieldwork. The background research focused on summarizing the project area's pre-contact and post-contact land use, cultural significance, and types and locations of potential cultural resources within the project area and its vicinity.

As part of its archaeological assessment field effort, carried out December 29th, 2008, CSH conducted systematic pedestrian inspection of the project area. No historic properties were identified. A discontinuous earthen ditch (CSH 1) was observed but determined to be related to drainage improvements for the adjacent Mā'alo Road.

These findings are largely in keeping with expectations for the project area, based on historical and previous archaeological research. The present study area and surrounding locale has been highly disturbed by both historic and modern agricultural activity which likely destroyed any remnant surface pre-contact modifications that may have existed at one time. The decades of agricultural exploitation including sugarcane cultivation would have likely destroyed any potential subsurface cultural deposits as well. In addition, the construction and subsequent improvements of the adjacent Mā'alo Road, including activities such as grading and drainage improvements, would have removed any trace of any pre-existing historic properties.

Section 7 Recommendations

7.1 Project Effect

No historic properties were identified within the 18-acre project area. Decades of previous cultivation have likely significantly impacted or destroyed any surface or subsurface historic properties that may have existed within the project area. Consequently, CSH's effect recommendation for the proposed development project is "no historic properties affected."

7.2 Mitigation Recommendations

No historic preservation mitigation measures are recommended for the proposed development project. If, in the unlikely event that intact cultural resources are encountered during the course of development activities, all work in the immediate area should stop and SHPD/DLNR should be promptly notified.

Section 8 References Cited

- Alexander, William Patterson**
1933 "A Tour of Kaua'i in 1849. Private Journal of William DeWitt Alexander." Kaua'i Historical Society Paper #57. Reprinted in, *The Kaua'i Papers*, pp. 121-135. 1991. Kaua'i Historical Society, Lihu'e, Kaua'i.
- Beardsley, Felicia Rounds**
1994 Dune Burials and Landscape Change: Archaeological Subsurface Testing Inventory Survey, Kaua'i Community Correctional Center and Wailua Golf Course Sewage Force Main Project, Wailua, Kaua'i, International Archaeological Research Institute, Inc., Honolulu.
- Bennett, Wendell C.**
1931 *The Archaeology of Kaua'i*, Bernice P. Bishop Museum Bulletin 80, Honolulu, HI.
- Bingham, Hiram**
1847 *A Residence of Twenty-One Years in the Sandwich Islands*, Huntington, Hartford. Connecticut and Convers, New York.
- Buffum, Amy, and Michael Dega**
2002 Archaeological Monitoring During Temporary Fence Installation at Coco Palms Resort, Wailua Ahupua'a, Puna District, Kaua'i Island, Hawai'i [TMK: 4-01-03:4,5,7,39 and 44]. Scientific Consultant Services, Honolulu.
- Bush, Tony, Gerald K. Ida, and Hallett H. Hammatt**
1998 Archaeological Inventory Survey with Subsurface Testing of a One-Acre Shoreline Parcel, on Papalooa Road, Wailua, Kaua'i (TMK 4-1-05:02). Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.
- Carney, Mary, and Hallett H. Hammatt**
2007 Archaeological Monitoring Report for the Leho Drive 24" Sewer Line Installation Project, Wailua Ahupua'a, Puna District, Island of Kaua'i Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.
- Carpenter, Alan, and Martha Yent**
1995 Archaeological Reconnaissance Survey of the Cart Road Trail Corridor, Wailua River State Park, Wailua Ahupua'a Kawaihau and Lihu'e Districts, Island of Kaua'i. Department of Land and Natural Resources, Division of State Parks, Honolulu.
- 1997a Archaeological Reconnaissance Survey: North Fork of the Wailua River, Wailua River State Park, Wailua Ahupua'a Kawaihau and Lihu'e Districts, Island of Kaua'i. Department of Land and Natural Resources, Division of State Parks, Honolulu.
- 1997b Archaeological Survey, Proposed Kayak Landing Site, Fern Grotto Area North Wailua River State Park, Wailua Ahupua'a Lihu'e District, Island of Kaua'i Division of State Parks, DLNR, State of Hawai'i, Honolulu, HI.

- Ching, Francis K.W.**
1968 *Archaeological Surface Survey; Wailua State Park, Kaua'i*, State of Hawaii. Department of Land and Natural Resources, State Historic Preservation Division, Kapolei, Hawai'i.
- Condé, Jesse C., and Gerald M. Best**
1973 *Sugar Trains, Narrow Gauge Rails of Hawaii*, Glenwood Publishers, Felton, California.
- Cox, David Walter**
1977 Report on the Burials Recovered During the Effluent Reclamation Project at Wailua, Puna, Kaua'i Island. Archaeological Research Center Hawai'i, Lāwā'i, Kaua'i, Hawai'i.
- Damon, Ethel M.**
1931 *Koamalu*, Privately printed at the Honolulu Star-Bulletin Press, Honolulu, (2 Volumes).
1934 *The Heiau at Wailua*. The Kaua'i Historical Society by the Garden Island Press, Lihu'e, Kaua'i.
- Dega, Michael F., and James Powell**
2003 Archaeological Monitoring During Phase I of the Kaua'i Rural Fiber Optic Duct Lines Project, Kaua'i Island, Hawai'i. Scientific Consultant Services
- Dickey, Lyle A.**
1917 Stories of Wailua, Kaua'i. Twenty-fifth Annual Report of the Hawaiian Historical Society for the Year 1916. Paradise of the Pacific Press, Honolulu.
- Dunbar, Helene R.**
1988 National Register of Historic Places Inventory - Nomination Form for the Wailua Complex of Heiau National Historic Landmark. Department of Land and Natural Resources, State Historic Preservation Division, Kapolei, Hawai'i.
- Elmore, Michelle, and Joseph Kennedy**
2000 A Report Concerning the Inadvertent Discovery of Human Remains at Coco Palms Hotel TMK: 4-1-003: 007 in Wailua Ahupua'a, Kawaihau District, Island of Kaua'i. Archaeological Consultants of the Pacific, Inc., Hale'iwa, Hawai'i.
- Erkelens, Conrad, and David J. Welch**
1993 Literature Review, Archaeological Assessment and Recommendations for the Kaua'i Community Correctional Center Sewage Force-Main Project Wailua, Kaua'i. International Archaeological Research Institute, Inc., Honolulu.
- Fager, Michael W., and Robert L. Spear**
2000 Monitoring During Wailua Golf Course Irrigation System Renovation, County of Kaua'i Department of Public Works Division of Parks and Recreation, Wailua Ahupua'a, Puna District, Kaua'i, (TMK: 3-9-05:Port. 1). Scientific Consultant Services, Inc., Honolulu, Hawai'i.
- Flores, E. Kalani**
1995 *Historical & Cultural Research of Malaeha'akoa, District of Puna, Island of Kaua'i, State of Hawai'i, Draft*. Mana'o'i'o

- Folk, William H. and Hallett H. Hammatt**
1992 Archaeological Assessment of the Proposed Fiber Optic Cable Landing for Wailua, Kaua'i, Cultural Surveys Hawai'i, Kailua, HI.
- 1995 Archaeological Monitoring of the Fiberoptic Cable Conduit Installation Through the Wailua Golf Course at Wailua, Kaua'i, Cultural Surveys Hawaii, Inc., Kailua, Hawai'i.
- Folk, William H. and Gerald K. Ida**
1981 A Cultural Resources Reconnaissance for the Wailua River HydroPower Study, F. Ching, ed., Archaeological Research Center Hawaii, Inc., ARCH 14-79, Honolulu, HI.
- Folk, William H., Gerald K. Ida, Edward W. Novack, and Hallett H. Hammatt**
1994 Archaeological Inventory Survey with Sub-Surface Testing for the Proposed Fiber Optic Cable Landing, Wailua, Kaua'i (TMK 3-9- portions Plat -2 and 05), Cultural Surveys Hawaii, Inc., Kailua, Hawai'i.
- Footo, Donald E., E.L. Hill, S. Nakamura, and F. Stephens**
1972 Soil Survey of the Islands of Kaua'i, Oahu, Maui, Molokai and Lanai, State of Hawaii. U.S. Dept. of Agriculture, U.S. Government Printing Office, Washington, D.C.
- Fornander, Abraham**
1878-85 An Account of the Polynesian Race, Its Origin and Migrations and the Ancient History of the Hawaiian People to the Time of Kamehameha I, 3 vols. Trubner & Co., London.
- 1916-19 *Collection of Hawaiian Antiquities and Folklore*, T.G. Thrum edit., Memoirs of the Bernice Pauahi Bishop Museum (Vol. IV & V), Bishop Museum Press, Honolulu.
- Decision rendered: July 10, 1875 by Duncan McBryde, Commissioner of Boundaries for the Island of Kaua'i.
- 1991 Archaeological Subsurface Testing for the Proposed Kapa'a Sewerline, Wailua, Oloheha, Waipouli and Kapa'a, Kaua'i, Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.
- 2001 Archaeological Assessment of the Proposed Sandwich Isles Communication Fiberoptic Cable Project within and Approximately 51-Mile (82-Kilometer) Road Corridor Between Kekaha and Moloa'a on the Island of Kaua'i. Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.
- 2005 National Register of Historic Places, nomination form for Site 50-30-80-680, Weiwau and Kawai-iki Ponds. Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.
- Giambelluca, Thomas W., Nullett, Michael A. and Thomas A. Schroeder**
1986 Ramifall Atlas of Hawai'i, Department of Land and Natural Resources, SHPD/DLNR, State of Hawai'i, Honolulu, HI.

- Hammatt, Hallett H., Rodney Chiogioji, Gerald K. Ida, and Victoria S. Creed**
1997 An Archaeological Inventory Survey for the Kūhiō Highway Widening and Bypass Options within the Ahupua'a of Wailua, South Oloheha, North Oloheha, Waipouli, & Kapa'a, Island of Kaua'i, with Appendix on Palynology by Jerome Ward, Ph.D. Cultural Surveys Hawaii, Inc., Kailua, Hawai'i.
- Hammatt, Hallett H., Gerald Ida, and Rodney Chiogioji**
1994 Archaeological Document Review and Assessment of Three Alternative Widening and Bypass Options of the Kūhiō Highway within the Ahupua'a of Hanamā'u, Wailua, South Oloheha, North Oloheha, Waipouli, and Kapa'a, Lihū'e and Kawaihau Districts, Island of Kaua'i. Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.
- Hammatt, Hallett H. and David W. Shideler**
2003 Archaeological Assessment for the Kūhiō Highway Improvements, Kapa'a to Hanama'u, Wailua (Kapa'a Relief Route) Project within the Ahupua'a of Kapa'a, Waipouli, North Oloheha, South Oloheha, Wailua, and Hanama'u, Island of Kaua'i (TMK 4-3-7; 4-3-9; 4-4-1; 4-4-3; 4-4-5; 4-4-6. Cultural Surveys Hawai'i, Kailua, Hawai'i.
- Handy, E.S. Craighill**
1940 *The Hawaiian Planter*, Volume I, Bishop Museum Bulletin 161, Bishop Museum Press, Honolulu.
- Handy, E.S. Craighill and Elizabeth G. Handy**
1972 *Native Planters in Old Hawaii: Their Life, Lore, and Environment*, Bishop Museum Bulletin 233, Honolulu.
- Hoffman, Tracy, David W. Shideler, Constance O'Hare, Jeff Fong, and Hallett H. Hammatt**
2005 Archaeological Inventory Survey with Subsurface Testing at the Coco Palms Resort, Wailua Ahupua'a, Puna District, Island of Kaua'i. Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.
- Ida, Gerald K. and Hallett H. Hammatt**
1998 Recovery of Inadvertently Discovered Human Remains and Consequential Monitoring on an Easement (State Site # 50-30-08-761) and Houselot, at Wailua, Kaua'i (TMK 4-1-04:19 and portion of TMK 4-1-04:9) Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.
- Kalākaua, David**
1888 *The Legends and Myths of Hawaii*. Charles L. Webster, (Reprint of three volumes published in 1877-85), New York.
- Kamakau, Samuel Manaiakalani**
1976 *The Works of the People of Old*. Bishop Museum Special Publication, No. 61, Honolulu.

- Kawachi, Carol T.**
1993 An Archaeological Survey of Wailua River Mouth, Wailua, Kawaihau (Puna), Kaua'i (TMK 4-1-04-01). Department of Land and Natural Resources, State Historic Preservation Division, Kapolei, Hawai'i.
- Kikuchi, William K.**
1973 The Coco Palms Burial Site: Wailua. Archaeology on Kaua'i 2(2):3-5. July 1973. Kaua'i Community College, Lihue, Kaua'i.
1974 Hikina-a-ka-lā Heiau: Site 50-30-08-105. Archaeology on Kaua'i. 3(2):4. March 1974. Kaua'i Community College, Lihue, Kaua'i.
1984 Ka Pae Ki'i Mahu o Wailua: The Petroglyphs of Wailua, District of Lihue, Island of Kaua'i. Site 50-30-08-105A. Archaeology on Kaua'i 11(2):1-16. Dec. 1984. Kaua'i Community College, Lihue, Kaua'i; 7 K-104
1987 Adze Fragments, Malae Heiau: Site 50-30-08-140, District of Puna, Ahupua'a of Wailua, Kaua'i. Archaeology on Kaua'i. 14(2). Issue 33. Dec 1987. Kaua'i Community College, Lihue, Kaua'i.
- Kikuchi, William K., Dolores L. Kikuchi, Catherine Stauder, Byron Cleeland, and Francis Frazier (Eds).**
1976 A Study of Two Sites at Wailua, Kaua'i from Oral Documentation and Historical Records. *Archaeology on Kaua'i* 5(3). Kaua'i Community College, Lihue, Kaua'i.
- Kikuchi, William K., and Susan Remoaldo**
1992 *Cemeteries of Kaua'i*, Vol. 1, Kaua'i Community College and University of Hawai'i, Puihi, Kaua'i.
- Knudsen, Eric A.**
1991 *A Trip Around Kaua'i and Some Personal Experiences on the Na Pali Coast, 1895. The Kaua'i Papers* pgs. 150-166). Kaua'i Historical Society, Lihue, Kaua'i, Hawai'i.
- Lydgate, John M.**
1920 Wailua - Home of Kings. *The Garden Island*, March 16, 1920. Lihue, Kaua'i, Hawai'i.
- McMahon, Nancy**
1991 Archaeological Investigations at the Proposed Nounou Mountain Trail Parking Area, Wailua, Kawaihau, Kaua'i, 4-1-012:10, 11, 12. State of Hawai'i Department of Land and Natural Resources, State Historic Preservation Division, Kapolei, Hawai'i.
- Morawski, Lauren, and Michael Deга**
2003 Archaeological Monitoring Report During Construction of the Lydgate Park Bike and Pedestrian Path, County of Kaua'i, Wailua Ahupua'a, Lihue District, Kaua'i Island (TMK: 3-09-06-01 and :3-09-02-34). Scientific Consultant Services, Honolulu.

- Native Register**
1847-53 Native Register of Kuleana Claims to Quiet Land Titles in the Hawaii Islands. State of Hawaii Archives, Honolulu, HI.
- O'Hare, Constance R. O'Hare, David W. Shideler, Jonas K. Madeus, and Hallett H. Hammatt**
2005 Research Report for Sites Near the East Tip of Pu'ukū Ridge, Wailua, Kaua'i focused on the Place Names Holoholokū and Kalaeamanu and an Archaeological Assessment of State Site 50-30-08-676. Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.
- O'Leary, Owen, and Hallett H. Hammatt**
2006 Archaeological Inventory Survey Addendum for the Coco Palms Resort Wailua Ahupua'a, Puna District, Island of Kaua'i TMK [4] 4-01-003: 004, 005, 007, 011, 017; 4-01-005: 014; 017. Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.
- Rechtman, Robert B., and Matthew R. Clark**
2001 An Archaeological Inventory Survey of TMK 4-4-03:02 Wailua Ahupua'a, Puna District, Island of Kaua'i. Rechtman Consulting, Kea'au, Hawai'i.
- Rice, William Hyde**
1923 *Hawaiian Legends*. Bernice P. Bishop Museum Bulletin 3. Honolulu.
- Salisbury, Mary**
1936 Wailua, Valley of Kaua'i Kings and Priests; Rich in Splendor. *Honolulu Star Bulletin*, September 5, 1936, Honolulu.
- Shideler, David W., Victoria S. Creed, and Hallett H. Hammatt**
2000 Archaeological Inventory Survey of A Corridor for a Proposed Bike Path in Lydgate State Park, Wailua Ahupua'a, Puna District, Island of Kaua'i (TMK: 3-0-06). Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.
2001 Archaeological Assessment of a Corridor for a Proposed Bike Path in Lydgate State Park, Wailua Ahupua'a, Puna District, Island Of Kaua'i (TMK: 3-0-06). Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.
- Soehren, Lloyd J.**
1967 *Field Trip Report, Wailua, Kaua'i*, Department of Land and Natural Resources, Division of State Parks, Honolulu.
- Spear, Robert L.**
1992 Kuhio Highway Improvements: Haleliio Road to Uhelekawa Bridge and the Parking Area Near Kuamoo Road District of Kawaihau Island of Kaua'i, Scientific Consultant Services, Honolulu.
- State of Hawaii, Department of Land and Natural Resources**
1992 Installation of Interpretive Signs in the Poli'ahu Heiau of Wailua River State Park 4-2-03:8 Department of Land and Natural Resources, Division of State Parks, Honolulu.
- Thrum, Thomas G.**
1906 Heiaus and Heiau Sites Throughout the Hawaiian Islands, Kaua'i. *Hawaiian Almanac and Annual for 1907*, pp. 36-48. Thos. G. Thrum, Honolulu.

- Tulchin, Jon and Hallett H. Hammatt**
2009 Archaeological Assessment for the State DOT Kūhiō Highway Short-Term Improvements Project, Wailua Ahupua'a, Kawaihau District, Island of Kaua'i, TMK: [4] 4-1-003: 007 por. & 017 por.; [4] 3-9-006: 009 por. & 026 por. Cultural Surveys Hawaii, Inc., Kailua, Hawaii.
- U.S. Geological Survey**
1910 (1912 Edition) Map: Topographic Map of the Island of Kaua'i, Territory of Hawaii, George Otis Smith, R.B. Marshall, U.S. Coast & Geodetic Survey, Washington, D.C.
- Vancouver, George**
1798 A Voyage of Discovery to the North Pacific Ocean and Round the World Performed in the Years 1790-95. 6 vols. John Stockdale, London.
- Waihona 'Aina Corp.**
2002 The Māhele Database and The Boundary Commission Database, as maintained by Project Director Victoria S. Creed, (Internet: www.waihona.com).
- Walker, Alan T., Lehua Kalima, and Susan T. Goodfellow**
1991 Archaeological Inventory Survey, Lihue/Puhi/Hanamā'ulu Master Plan, Lands of Hanamā'ulu, Kalapaki, Nāwiliwili, Niumalu, and Wailua, Lihue District, Island of Kaua'i. Paul H. Rosendahl, Ph.D., Inc, Hilo, Hawaii.
- Walton, Beth, and Charles Spilker**
1974 Archaeological Report on Lydgate State Park Pavilion Project. Department of Land and Natural Resources, Division of State Parks, Honolulu.
- Wilkes, Charles**
1846 Narrative of the United States Exploring Expedition, During the Years 1838, 1839, 1840, 1841, 1842. 5 Vols. Lea and Blanchard, Philadelphia, Pennsylvania.
- Yent, Martha**
1980 Archaeological Evaluation of the Bell Stone, Wailua River State Park, Wailua, Kaua'i. Department of Land and Natural Resources, Division of State Parks, Honolulu.
- 1987 Archaeological Investigations: Lydgate Area, Wailua River State Park, Wailua, Kaua'i, TMK 3-9-06:4. Department of Land and Natural Resources, Division of State Parks, Honolulu.
- 1989 Archaeological Investigations: Mapping and Testing of Hikinaakalā Heiau and Hauola, Lydgate Area, Wailua River State Park, Wailua, Kaua'i. Department of Land and Natural Resources, Division of State Parks, Honolulu.
- 1991a Archaeological Testing for Kūhiō Highway Contraflow Project: Lydgate Area, Wailua River State Park Wailua, Lihue District, Kaua'i (TMK: 3-9-06: por. 1). Department of Land and Natural Resources, Division of State Parks, Honolulu.
- 1991b Environmental Assessment: Inclusion of Malae Heiau into Wailua River State Park, Wailua, Kawaihau, Kaua'i (TMK: 3-9-02: 12 and 13). Department of Land and Natural Resources, Division of State Parks, Honolulu.

- 1991c Preliminary Report: Petroglyph Site 50-30-08-105A, Lydgate Area, Wailua River State Park, Wailua, Lihue District Kaua'i. Department of Land and Natural Resources, Division of State Parks, Honolulu.
- 1992 Assessment of Hurricane Iniki Damage to Historic Sites within State Parks on Kaua'i: Wailua River State Park, Lihue-Kawaihau District Hā'ena State Park, Hanalei District, Russian Fort Elizabeth State Historical Park, Waimea Poilihale State Park, Waimea District. Department of Land and Natural Resources, Division of State Parks, Honolulu.
- 1997a Burial Treatment Plan and Archaeological Monitoring Plan, Wailua Automobile Recycling Facility, Wailua Ahupua'a, Lihue District, Kaua'i (TMK: 3-9-05: portion 1). Department of Land and Natural Resources, Division of State Parks, Honolulu.
- 1997b Vegetation Removal and Landscaping Plan, Malae Heiau, (Site No. 50-30-08-104), Wailua River State Park, Wailua, Lihue District, Kaua'i, State of Hawaii, Department of Land and Natural Resources, Division of State Parks, Honolulu.
- 1997c Progress Report # 1 Vegetation Removal - Removal of Chinese Banyan Tree - Malae Heiau, Wailua River State Park, Wailua, Lihue District, Kaua'i. Department of Land and Natural Resources, Division of State Parks, Honolulu.
- 2000 Completion Report: Restoration of Pōhaku Ho'olānau (Birthstones) Site at Holoholokū and Vegetation Removal and Installation of Interpretive Signs at Hikinaakalā Heiau, Wailua River State Park. Department of Land and Natural Resources, Division of State Parks, Honolulu.

Appendix D: Executive Order for Land Transfer

LAND COURT SYSTEM) REGULAR SYSTEM
Return by Mail () Pickup () To:

Total Number of Pages:
Tax Map Key No. (4)3-9-2:Por. 20

FROM: STATE OF HAWAII
BOARD OF LAND AND NATURAL RESOURCES

TO: COUNTY OF KAUAI
4444 Rice Street
Moikeha Building
Lihue, Hawaii 96766

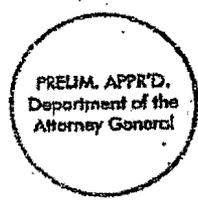
EXECUTIVE ORDER NO. 4168

SETTING ASIDE LAND FOR PUBLIC PURPOSES

BY THIS EXECUTIVE ORDER, I, the undersigned, Governor of the State of Hawaii, by virtue of the authority in me vested by Section 171-11, Hawaii Revised Statutes, and every other authority me hereunto enabling, do hereby order that the public land hereinafter described be, and the same is, hereby set aside for the following public purposes:

131129_1.DOC

DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
P.O. BOX 621
HONOLULU, HAWAII 96809

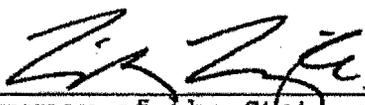


FOR RECREATIONAL PURPOSES, to be under the control and management of the COUNTY OF KAUAI, being that parcel of land situate at Wailua, Lihue, Kauai, Hawaii, identified as "Recreational Purposes Site," containing an area of 18.007 acres, vehicle access into and from Maalo Road shall not be permitted over and across Courses 4 and 6, and subject, however, to a 10 foot setback line for future road widening, more particularly described in Exhibit "A" and delineated on Exhibit "B," both of which are attached hereto and made parts hereof, said exhibits being respectively, a survey description and survey map prepared by the Survey Division, Department of Accounting and General Services, State of Hawaii, both being designated C.S.F. No. 24,298 and dated July 11, 2006.

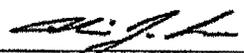
SUBJECT, HOWEVER, to the condition that upon cancellation of this executive order or in the event of non-use or abandonment of the premises or any portion thereof for a continuous period of one (1) year, or for any reason whatsoever, the County of Kauai shall, within a reasonable time, restore the premises to a condition satisfactory and acceptable to the Department of Land and Natural Resources, State of Hawaii.

SUBJECT, FURTHER, to disapproval by the Legislature by two-thirds vote of either the Senate or the House of Representatives or by majority vote of both, in any regular or special session next following the date of this Executive Order.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Great Seal of the State of Hawaii to be affixed. Done at the Capitol at Honolulu this 11th day of August, 2006.


Governor of the State of Hawaii

APPROVED AS TO FORM:


Deputy Attorney General

Dated: 7/17/06

PRELIM. APPRD.
Department of the
Attorney General

STATE OF HAWAII

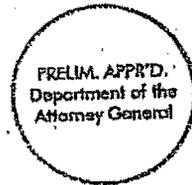
Office of the Lieutenant Governor

THIS IS TO CERTIFY That the within is a true copy of
Executive Order No. 4168 setting aside land for public
purposes, the original of which is on file in this office.

IN TESTIMONY WHEREOF, the Lieutenant
Governor of the State of Hawaii, has
hereunto subscribed his name and caused
the Great Seal of the State to be affixed.



DONE in Honolulu, this AUG 15 2006 day of
_____, A.D. 2006





STATE OF HAWAII

SURVEY DIVISION

DEPT. OF ACCOUNTING AND GENERAL SERVICES

HONOLULU

C.S.F. No. 24,298

July 11, 2006

RECREATIONAL PURPOSES SITE

Wailua, Lihue, Kauai, Hawaii

Being a portion of the Government (Crown) Land of Wailua.

Beginning at the southeast corner of this parcel of land and on the east west side of Maalo Road, the coordinates of said point of beginning referred to Government Survey Triangulation Station "KALEPA" being 7500.85 feet North and 9501.89 feet West, thence running by azimuths measured clockwise from True South:-

- 1. 109° 29' 1110.20 feet along Royal Patent 4478, Land Commission Award 7713, Apana 2, Section 7 to V. Kamamalu;
- 2. 199° 29' 1015.63 feet along the remainder of the Government (Crown) Land of Wailua;
- 3. 299° 28' 546.16 feet along the remainder of the Government (Crown) Land of Wailua;
- 4. 347° 37' 30" 500.00 feet along the west side of Maalo Road;
- 5. 347° 37' 30" 35.00 feet along the west side of Maalo Road;



EXHIBIT "A"

July 11, 2006

6. 347° 37' 30" 549.29 feet along the west side of Maalo Road to the point of beginning and containing an AREA OF 18.007 ACRES.

Vehicle access into and from Maalo Road shall not be permitted over and across Courses 4 and 6 of the above-described Recreational Purposes Site.

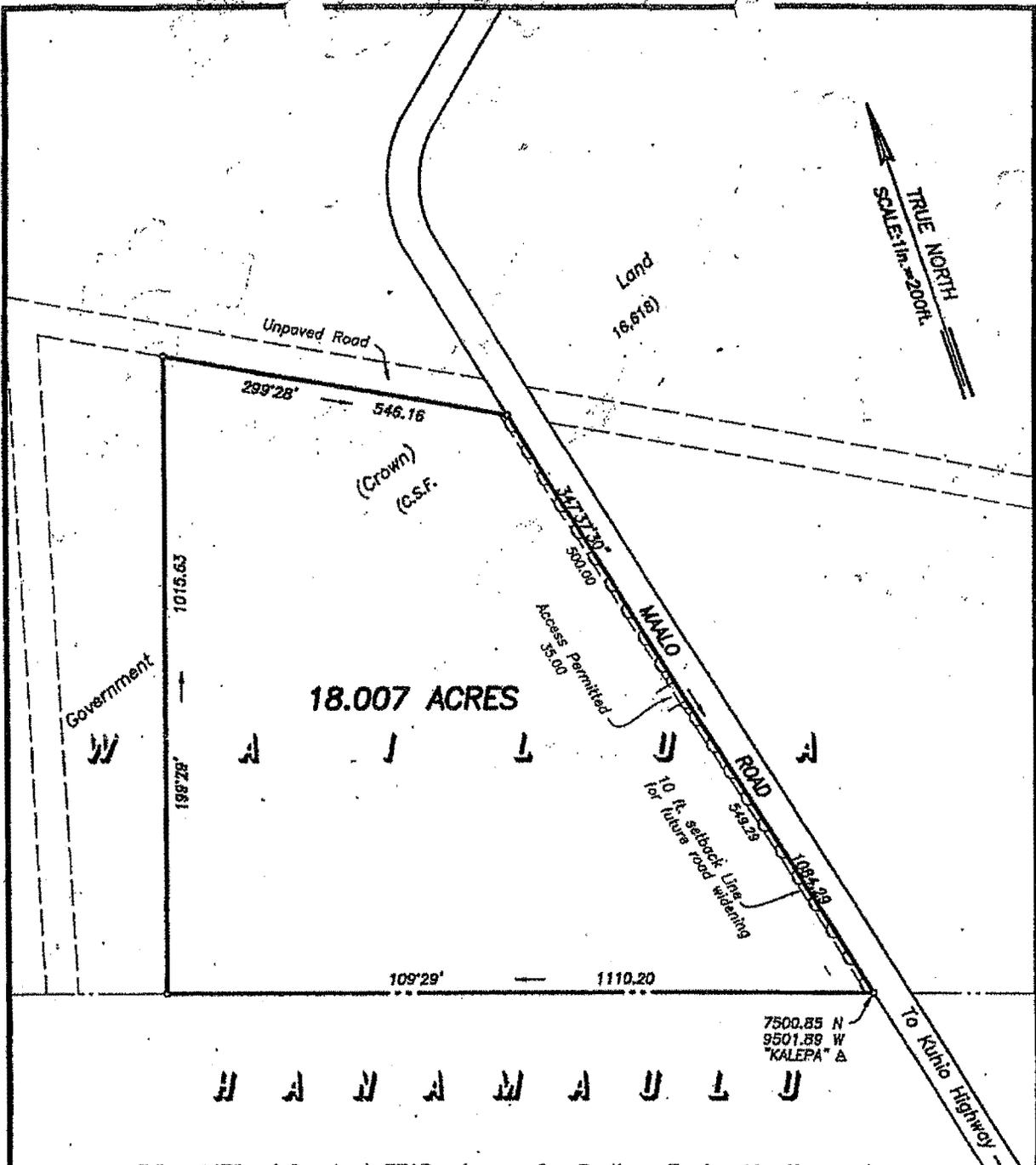
Subject, however, to a 10 ft. setback line for future road widening as shown on plan attached hereto and make a part hereof.

SURVEY DIVISION
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
STATE OF HAWAII

By: Glenn J. Kodani
Glenn J. Kodani
Land Surveyor ml

Compiled from subdivision map furnished by the Department of Public Works, County of Kauai and other Gov't. Survey records.





TRUE NORTH
SCALE: 1 in = 200 ft

H A N A M A U L U

R.P. 447B, L.C. Aw. 7713, Apana 2, Section 7 to V. Kamamalu

REDUCED NOT TO SCALE

RECREATIONAL PURPOSES SITE
Wailua, Lihue, Kauai, Hawaii

Scale: 1 inch = 200 feet

PRELIM. APPR'D.
Department of the
Attorney General

EXHIBIT "B"

JOB K-185(06)
C. B.K.

 denotes access permitted
 denotes no vehicle access permitted

TAX MAP 3-8-02; Por. 20
G.S.F. NO. 24,298

SURVEY DIVISION
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
STATE OF HAWAII

07H July 11, 2006