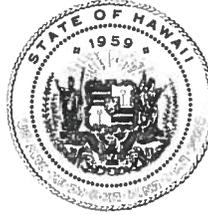


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GOVERNOR OF HAWAII



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CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

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FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCCUPANCY
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FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAIHOHAWAII AND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

August 15, 2011

Ref. No.: 09HD-055

Author: LD-KM

REC'D OF ENVIRONMENTAL
QUALITY CONTROL
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MEMORANDUM

TO: Gary L. Hooser, Director
Office of Environmental Quality Control

FROM: William J. Aila, Jr., Chairperson *W. J. Aila, Jr.*
Board of Land and Natural Resources

SUBJECT: Finding of No Significant Impact (FONSI) to the Environment for the Final Environmental Assessment, Lease of State Land, Hokuloa United Church of Christ, Lalamilo, South Kohala, Hawaii, TMK: 3rd/6-9-002:007, 008, 009 & 010

The Department of Land and Natural Resources, Land Division, has reviewed the comments received during the 30-day public review period and the applicant's responses to these comments for the above-referenced environmental assessment. Accordingly, we have determined that this project will not have a significant environmental effect and we have issued a FONSI determination. Please publish this notice in your next scheduled publication of the Environmental Notice.

We have enclosed a completed OEQC Bulletin Publication Form, a copy of the Final Environmental Assessment with a CD containing the pdf and Word files.

If you have any questions, please feel free to contact Hawaii District Land Agent Kevin Moore at (808) 974-6203. Thank you.

Enclosures

cc: Land Board Member
Central Files
District Files

**OEQC Publication Form
The Environmental Notice**

Name of Project: Lease of State Land, Hokuloa United Church Of Christ

Applicable Law: Chapter 343, HRS

Type of Document: Final EA

Island: Hawai'i

District: South Kohala

TMK: (3rd) 6-9-002:007, 008, 009, and 010

Permits Required: Direct Lease of State Lands

Name of Applicant: Hawaii Conference Foundation
Address 1848 Nuuanu Avenue
City, State, Zip Honolulu, Hawai'i 96817
Contact and Phone Reverend John Hoover 883-8295

Approving Agency: Hawai'i State Department of Land and Natural Resources, Land Division
Address 75 Aupuni Street, Room 204
City, State, Zip Hilo HI 96720
Contact and Phone Kevin Moore 974-6203

Consultant Geometrician Associates
Address PO Box 396
City, State, Zip Hilo HI 96721
Contact and Phone Ron Terry 969-7090

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL
11 AUG 23 P2:22
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Project Summary

The Hawaii Conference Foundation is requesting the Hawai'i DLNR to cancel a Revocable Permit that grants the use of TMK 6-9-002:009 for the Hokuloa United Church of Christ in Puakō, and to issue a Direct Lease for Church and Landscaping Purposes covering TMKs 6-9-002:007, 008, 009, and 010. About a third of Parcel 9 is actually contained within Puakō Beach Drive, and the scenic and historic church is thus confined to a small area that does not fully reflect its historical presence. As development and traffic in South Kohala continue to grow, the integrity and functionality of the Church are threatened. The purpose of the requested lease is to allow restoration, maintenance and operation of the Church as an active and living historical site, and to create a scenic landscaped vista protecting the historical integrity of the Church that allows space for outdoor Church activities on the other properties. The action would also consolidate and resubdivide the parcels to provide one large parcel for the Church lease, while also enabling consolidation of portions of the properties within Puakō Beach Drive with County managed property and portions in the Conservation District with adjacent State land. In general, no adverse long-term impacts are expected to result from the action. Shoreline resources would be protected and enhanced by the action through gradual restoration of native and Polynesian vegetation and accommodation of a public shoreline trail. Landscaping activities will not use heavy equipment and will be mitigated by their gradual nature and timing restrictions. Archaeological survey found no sites, and the project supports historic preservation, but work will be immediately halted if unidentified sites, artifacts, or burials are unexpectedly encountered.

**FINAL ENVIRONMENTAL ASSESSMENT
LEASE OF STATE LAND
HOKULOA UNITED CHURCH OF CHRIST**



**TMKs (3rd) 6-9-002:007, 008, 009, and 010
Lalamilo, South Kohala District, Island of Hawai'i, State of Hawai'i**

August 2011

**Prepared for:
State of Hawai'i
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawai'i 96809**

**FINAL ENVIRONMENTAL ASSESSMENT
LEASE OF STATE LAND
HOKULOA UNITED CHURCH OF CHRIST**

**TMKs (3rd) 6-9-002:007, 008, 009, and 010
Lalamilo, South Kohala District, Island of Hawai'i, State of Hawai'i**

APPLICANT:

Hawaii Conference Foundation
1848 Nuuanu Avenue
Honolulu, Hawai'i 96817

**ACCEPTING
AUTHORITY:**

State of Hawai'i Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawai'i 96809

CONSULTANT:

Ron Terry Ph.D.
PO Box 396
Hilo HI 96721

CLASS OF ACTION:

Use of State Lands

This document is prepared pursuant to:
the Hawai'i Environmental Policy Act,
Chapter 343, Hawai'i Revised Statutes (HRS), and
Title 11, Chapter 200, Hawai'i Department of Health Administrative Rules (HAR).

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TABLE OF CONTENTS

SUMMARY	ii
PART 1: ACTION DESCRIPTION	1
1.1 Action Description and Location	1
1.2 Summary of Environmental Assessment Process	9
1.3 Public Involvement and Agency Coordination	10
PART 2: ALTERNATIVES.....	11
2.1 Proposed Action	11
2.2 No Action	11
2.3 Other Uses of the Property Evaluated but Dismissed.....	11
PART 3: ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION	12
3.1 Physical Environment.....	16
3.1.1 Climate, Geology, Soils and Geologic Hazards.....	16
3.1.2 Flood Zones, Shoreline Setting and Coastal Erosion	17
3.1.3 Water Quality.....	20
3.1.4 Flora and Fauna.....	22
3.1.5 Scenic Resources	27
3.1.6 Air Quality and Noise	28
3.1.7 Hazardous Substances, Toxic Waste and Hazardous Conditions.....	28
3.2 Socioeconomic and Cultural	29
3.2.1 Land Use, Designations and Controls.....	29
3.2.2 Socioeconomic Characteristics and Recreation	30
3.2.3 Cultural and Historic Resources	33
3.2.4 Agricultural Resources.....	44
3.3 Roads, Public Facilities and Utilities	44
3.4 Secondary and Cumulative Impacts.....	45
3.5 Required Permits and Approvals	46
3.6 Consistency With Government Plans and Policies	46
3.6.1 County of Hawai'i General Plan	46
3.6.2 Special Management Area	50
3.6.3 Shoreline Setback Rules	51
3.6.4 South Kohala Community Development Plan.....	51
PART 4: DETERMINATION, FINDINGS AND REASONS.....	53
4.1 Determination	53
4.2 Findings and Supporting Reasons.....	53
REFERENCES	55
LIST OF FIGURES	
FIGURE 1 Site Photographs	2
FIGURE 2 Location Map.....	3
FIGURE 3 TMK Map	3
FIGURE 4 Site Plan	5
FIGURE 5 Flood Zone Map.....	5

LIST OF TABLES

TABLE 1	Plant Species on Properties.....	23
TABLE 2	Status of Properties	29
TABLE 3	Selected Socioeconomic Characteristics.....	31

APPENDIX 1a	Comment Letters in Response to Early Consultation
APPENDIX 1b	Comments to Draft EA and Responses

**SUMMARY OF ACTION, ENVIRONMENTAL IMPACTS
AND MITIGATION MEASURES**

The Hawai‘i Conference Foundation is requesting the Hawai‘i Department of Land and Natural Resources (DLNR) to cancel Revocable Permit No. S-4350, which grants the use of TMK 6-9-002:009 for the Hokuloa United Church of Christ in Puakō, South Kohala, Island of Hawai‘i, and to issue a Direct Lease for Church and Landscaping Purposes covering TMKs 6-9-002:007, 008, 009, and 010. About a third of Parcel 9 is actually contained within Puakō Beach Drive, and the scenic and historic church is thus confined to a small area that does not fully reflect its historical presence. As development and traffic in South Kohala continue to grow, the integrity and functionality of the Church are threatened. The purpose of the requested lease is twofold: 1) to allow restoration, maintenance and operation of the Church as an active and living historical site open to the public and related purposes on Parcel 9; and 2) to create a scenic landscaped vista protecting the historical integrity of the Church and allowing space for outdoor Church activities on the other properties. The action would also subdivide Parcel 9 and Parcel 10 to enable transfer of the portions of these properties that extend into the Puakō Beach Drive right-of-way to the control of the County of Hawai‘i, which maintains this road. Parcels 9, 10, 7 and 8 would then be consolidated into one property. Any remnant property on the *mauka* side of Puakō Beach Drive would be consolidated into 6-9-001:015, a State of Hawai‘i property within the Conservation District.

In general, no adverse long-term impacts are expected to result from the action. Shoreline resources would be protected and enhanced by the action through gradual restoration of native and Polynesian vegetation and accommodation of a public shoreline trail. Landscaping activities would produce limited short-term impacts to noise, air quality, access and scenery that will be mitigated by the gradual nature of the activity, timing restrictions, and not using heavy equipment. Archaeological survey found no sites, but if any previously unidentified sites, or remains such as artifacts, shell, bone or charcoal deposits, human burials, rock or coral alignments, pavings, or walls are encountered, work will stop immediately and the State Historic Preservation Division will be consulted to determine the appropriate mitigation.

PART 1: ACTION DESCRIPTION

1.1 Action Description and Location

The historic Hokuloa Church (Figure 1) is the oldest functioning lava rock structure in the district of South Kohala. The land for the Church and for an adjacent school was given by Kamehameha III to the missionary Reverend Lorenzo Lyons. The architecture of the Church is consistent with the style established by the early missionaries in Hawai‘i. It is a simple, whitewashed, lava rock structure topped by a small wooden steeple. Throughout the years, except for a period of intermittent use between 1914 and 1965, the building has been used for weekly worship services and as a gathering place and center of community life. The Hawaii Conference Foundation strives to keep the historic authenticity of its appearance while also providing an active place of worship. Apart from the installation of electricity and facilities necessary for general maintenance and repair, the building retains its original integrity and appearance and continues the affiliation with its religious roots and the Hawaiian community.

For many decades, the Hawaii Conference Foundation has held a Revocable Permit for a 28,485 square-foot State of Hawai‘i property identified as TMK 6-9-002:009 (Figures 2-3). About a third of this property has ended up being used for Puakō Beach Drive, and the highly scenic and historic church is thus confined within a relatively small area that does not fully reflect the historic landscape. As development and traffic in South Kohala continue to grow, the integrity and functionality of the Church are threatened.

Accordingly, the Hawaii Conference Foundation has applied to the Hawai‘i Department of Land and Natural Resources (DLNR) for a Cancellation of Revocable Permit No. S-4350 and Issuance of a Direct Lease for Church and Landscaping Purposes to cover TMKs 6-9-002:007, 008, 009, and 010 at Puakō (referred to herein as Parcels 7, 8, 9 and 10), which are listed in tax records as totaling about 2.7 acres.

The purpose of the requested lease is twofold: 1) to allow restoration, maintenance and operation of the Church as an active and living historical site open to the public and related purposes on Parcel 9; and 2) to create a scenic landscaped vista protecting the historical integrity of the Church and allowing space for outdoor Church activities on the other properties. At present the vegetation on Parcels 7 and 8 is mostly a dense tangle of *kiawe* (*Prosopis pallida*). The vegetation’s thickness makes it nearly impossible to walk through and discourages any sort of use. Historically, Church members could land canoes and other small boats from other places in Puakō in this spot to attend the Church and the school on Parcel 7.

Hokuloa Church Lease of State Lands Environmental Assessment

Figure 1a-b Site Photos



Hokuloa Church ▲ ▼ Shoreline at Parcel 8



Figure 1c-d Site Photos



Character of Shoreline at Adjacent Residences (to Southwest) ▲ ▼ (to Northeast)

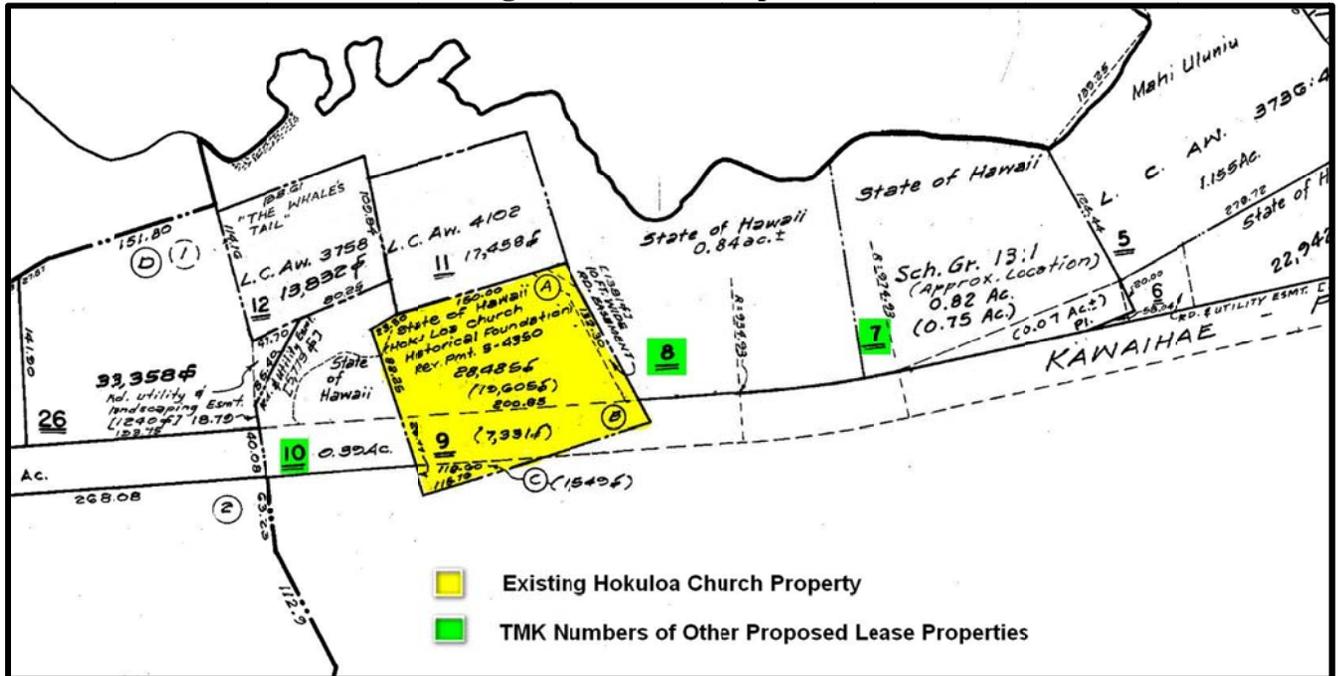


Hokuloa Church Lease of State Lands Environmental Assessment

Figure 2 Location Map



Figure 3 TMK Map



Puako Bay



Approximate Shoreline (Actual Location Subject To Shoreline Certification)

Stone Paver, Typical (Approx. 284 S.F. Total)

3'-0" Wide Pedestrian Gate, Typical (6 Total)

4'-0" Wide Coastal Trail, Typical (Approx. 2,197 S.F. Total)
(Actual Location Subject To Shoreline Certification And Consultation With Trail Agencies And Groups)

4'-0" Tall Hog Wire Fence, Typical (Approx. 1,104 L.F. Total)

Compacted 3/4" Dia. A'a Groundcover, Typical (Approx. 13,632 S.F. Total)

4'-6" Tall Accent Shrub, Typical (104 Total)
Alpinia purpurata/Red Ginger
Gardenia taitensis/Tahitian Gardenia
Hibiscus arnottianus/Kokio Ke'oke'o
Osteomeles anthyridifolia/Uie'i
Scaevola sericea/Naupaka

Replant with Shrubs and Groundcovers (Approx. 15,547 S.F. Total)
Cordyline fruticosa/Ti
Gardenia taitensis/Tahitian Gardenia
Hibiscus arnottianus/Kokio Ke'oke'o
Nephrolepis cordifolia/Kupukupu
Osteomeles anthyridifolia/Uie'i
Phymatosorus grossus/Dwarf Laua'e
Wikstroemia uva-ursi/Akia

Large Canopy/Accent Tree, Typical (4 Total)
Calophyllum inophyllum/Kamani
Cordia subcordata/Kou
Pandanus tectorius/Lauhala

Small Accent Tree, Typical, (24 Total)
Thespesia populnea/Milo
Tournefortia argentea/Beach Heliotrope

Mid-Size Single Trunk Palm, Typical (66 Total)
Pritchardia affinis/Loulu Palm

4'-0" Wide Improved Trail For Shoreline Access, 3/4" Diameter Compacted A'a (Approx. 553 S.F. Total)

Existing Vegetation: To be thinned out and/or replaced over time with native trees, shrubs and groundcovers appropriate for dry, coastal conditions.

Existing Surface Treatment To Remain

3'-4" Tall Barrier/Screen Shrub (487 Total)
Scaevola sericea/Naupaka

Landscape Edging, Typical (Approx. 150 L.F. Total)

Existing Rock Wall To Remain, Typical

6'-0" Tall Rock Wall To Match Existing, Typical (Approx. 82 L.F. Total)

Mid-Size Accent Tree, Typical (1 Total)
Pandanus tectorius/Lauhala

Lawn, Typical (Approx. 1,186 S.F. Total)
Paspalum vaginatum/Seashore Paspalum

New Cast-in-Place Concrete "Lava" Pavers With Grass Joints To Match Existing (Approx. 1,060 S.F. Total)

Stone Edging, Typical (Approx 826 L.F. Total)

4'-0" Tall Hog Wire Fence, Typical (Approx. 1,104 L.F. Total)

Landscape Boulder, Typical (67 Total)

Maintenance Access Corridor - No Parking

Proposed Water Meter, Typical (2 Total)

Schedule 40 Mainline, Typical (Approx. 160 L.F. Total)

Hose Bib, Typical (2 Total)

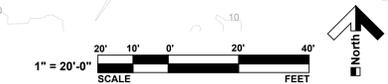
"Gravel Pave" Reinforced Surface, Typical (Approx. 5,720 S.F. Total)

Clean-Up and Supplement Existing Gravel to Match Area Fronting Parcel 9A (Approx 8,779 S.F. Total)

20" Tall Rock Wall To Match Existing, Typical (Approx. 400 L.F. Total)

Preliminary Landscape Plan
for
Hokuloa United Church of Christ
69-1600 Puako Beach Road, Kamuela, Hawaii
TMK #: (3)6-9-002:007,008, 009, 010, 011 & 012

Prepared By
LEONARD BISEL ASSOCIATES, LLC
Landscape Architecture & Site Planning



Job 10.02 Print Date: July 26, 2011

Hokuloa Church Lease of State Lands Environmental Assessment

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Hokuloa Church Lease of State Lands Environmental Assessment

Figure 4 is a Site Plan for the proposed action that illustrates the following elements (it should be noted that (a) the Site Plan was modified from that presented in the Draft EA to clarify issues raised in comment letters and delete certain features, as noted below; and (b), the Site Plan is conceptual, and the actual location of features such as the trail, the naupaka-hedge border, and the open areas are flexible in location depending on the final certified shoreline location):

1. On Parcels 7 and 8, Church volunteers and contractors would gradually hand-clear the *kiawe* that makes up 99% of the vegetation with chainsaws (no heavy equipment that grubs or grades the ground surface) and replace it with native, Polynesian, and mid-19th century period vegetation. Three basic landscape elements would be included:
 - Large Canopy/Accent Trees such as *kamani* (*Calophyllum inophyllum*), *kou* (*Cordia subcordata*), coconut (*Cocos nucifera*), *milo* (*Thespesia populnea*) and *hala* (*Pandanus tectorius*) back from the shoreline.
 - Shrubs and Groundcovers including *ti* (*Cordyline fruticosa*), Tahitian gardenia (*Gardenia taitensis*), *koki 'o keokeo* (*Hibiscus arnottianus*), *kupukupu* (*Nephrolepis cordifolia*), *'ulei* (*Osteomeles anthyllidifolia*), dwarf *laua 'e* (*Phymatosorus grossus*), and *'akia* (*Wikstroemia uva-ursi*) in the more *makai* areas. The actual shoreline would be left free of vegetation.
 - Accent Shrubs including red ginger (*Alpinia purpurata*), *naupaka* (*Scaevola sericea*), Tahitian gardenia, *koki 'o keokeo*, and *'ulei* surrounding the canopy trees.

Throughout Parcels 7 and 8, some *kiawe* and a few ironwood trees would remain, but most would gradually be cut by hand to stumps, allowing the root systems to remain while the native and Polynesian coastal trees, shrubs and herbs that would replace them were allowed to grow. In general, as shown in Figure 4, the *makai* portion of the property would receive the earliest attention.

2. Creation of six open use areas consisting of two larger use areas (1,500 to 2,000 square feet each) towards the middle and road side of the property and four smaller areas (200-400 square feet each) between the canopy trees more *makai* on the property. ~~Other than a low-key storage shed near one of the open areas,~~ No permanent structures are planned here, and the surface would be left unpaved or coated with a surface that allows drainage and resists erosion. Portable canopies and chairs could be brought in for Church activities such as weddings, funerals, Church holiday celebrations, or community events approved by the Church. The Church would allow usage of these areas by community organizations by special application for special events, to the extent that the activity did not conflict with Church uses or pose a nuisance to neighbors.

The proposed lease and landscaping would simply allow relocation and spreading out activities that already occur at the Church and does not involve any new activities. In response to comments on the Draft EA, the Church has developed a description of the activities that typically occur over the course of a year in order to illustrate the types of Church activities and community services that are provided.

Hokuloa Church Lease of State Lands Environmental Assessment

The Sunday Worship services run from 9-11 am and, outside of Thanksgiving, Christmas, and Easter Week services, they have an average monthly attendance of 42. In the last several years, the maximum was 110 attendees in one month. The holiday services were attended by more, with as many as 432 attendees spread over two services on Christmas, with slightly lower numbers for the two Easter services. Thanksgiving, Ash Wednesday, and Maundy Thursday have between 24 and 86 attendees. Baptism and wedding vow renewals are held on Sunday mornings with/after worship services. The Church Council meets monthly and the Congregation meets twice a year.

There are occasional weddings and funerals, although none were held at the Church from July 2010 to June 2011 (Pastor Hoover often officiates at weddings and funerals held at hotels, in backyards and at private homes). Earlier in 2010 there was one wedding at the Church with an attendance of 22. In addition, as part of the Church's mission to provide food to the hungry, biannual Community Food Collection/Donation Drive are held after worship services on the church lawn, with drive-by drop off from roughly 75 contributors.

The Church serves as a gathering place for community groups and activities: a weekly Alcoholics Anonymous group (15-45), a weekly Al-Anon group (15-50); annual meetings of the Puako Condo Association, periodic Puakō Historical Society meetings, the Puakō Community Association (three to six times meetings per year might be expected, with 30-45 in attendance), an annual community Thanksgiving Eve celebration; other special and timely gatherings such as CERT training; presentations by the Bishop Museum, the County Fire and Water Departments, Firewise, Neighborhood Watch, Nature Conservancy, West Hawai'i Fisheries Council, Lauhala Weavers, a Cub Scout Pack (1990-2005), Community Development Planning meetings, miscellaneous other non-profits and community organizations, and gatherings with public and elected County and State officials.

Again, these activities are not expected to significantly expand in diversity or attendance.

3. Hand clearing, most likely by volunteers coordinated by a trail group such as E Mau Na Ala Hele or the Ala Kahakai National Historic Trail, of a shoreline trail along the entire shoreline frontage of the property. Public use of the trail and the shoreline area *makai* of the trail would be welcomed; a low *naupaka* hedge *mauka* of the trail, inside of which would be hidden a 4-foot tall hogwire fence, would subtly demarcate the Church use area. At several locations the fence would have a gate and a stone-paved path to the shoreline. Low-key signs at the gates *mauka* of the trail would state: "Church Use Only, Please". The trail would connect to the segment of the Ala Kahakai extending northeast and could also be accessed by a *mauka-makai* public access along the eastern border of Parcel 7.
4. Extension of the stone wall that currently fronts the Church (see Figure 1) to the north and south along the edge of the Puakō Beach Drive right-of-way, as well as extension/relocation of the wall currently separating Parcels 9 and 11 to also separate the portion of Lot 10 outside the access/utility easement for Parcel 12.

Hokuloa Church Lease of State Lands Environmental Assessment

5. Planting of Parcel 10 with *hala* and seashore paspalum, leaving an edge of vegetation along the *mauka* edge to allow continued shielding from the road for the existing residential property northwest of the church.
6. Minor additional landscaping and improvements, including a 195 square foot storage shed tucked into the wall on the existing Church lot (Parcel 9).

Unrelated to any need from or request by the Church but a requirement for the lease by the State of Hawai‘i would be the subdivision of Parcel 9 and Parcel 10 to enable transfer of the portions of these parcels that extend into the Puakō Beach Drive right-of-way to the control of the County of Hawai‘i, which maintains this road. Parcels 9, 10, 7 and 8 would then be consolidated into one property. Any remnant property on the *mauka* side of Puakō Beach Drive would be consolidated into 6-9-001:015, a State of Hawai‘i property within the Conservation District. The consolidation-resubdivision action will also accommodate recently adjusted access and utility easements for neighboring properties.

The Hawaii Conference Foundation has been conditionally granted the lease by DLNR, subject to fulfillment of certain requirements, including completion of the EA process, subdivision, and record survey. The conditions set by the Board of Land and Natural Resources (BLNR) also include obtaining a Conservation District Use Permit (if determined necessary by the Office of Coastal and Conservation Lands [OCCL]) for any aspect of the action within the portions of TMKs 6-9-02:009 and 010 within the State Conservation District, and obtaining a County Special Management Area (SMA) permit or SMA exemption. This Environmental Assessment serves as support for these processes, which would begin after the EA process concludes. The action is expected to be privately funded through funds, material and labor donated to the Church. The activity would begin as soon as all permits were obtained and would take several years to complete.

1.2 Environmental Assessment Process

This Environmental Assessment process is being conducted in accordance with Chapter 343 of the Hawai‘i Revised Statutes (HRS). This law, along with its implementing regulations, Title 11, Chapter 200, of the Hawai‘i Administrative Rules (HAR), is the basis for the environmental impact process in the State of Hawai‘i. An EA is necessary because the action involves a use of State Land. A portion of the site is within the Shoreline Setback Area, although no activities other than a trail and landscaping are planned within this area, which might not in and of itself trigger the need for an EA. The property also includes a small portion within the Conservation District, which would be subdivided out and consolidated with another property, an action which may be determined by the Department of Land and Natural Resources to require an EA.

According to Chapter 343, an EA is prepared to determine impacts associated with an action, to develop mitigation measures for adverse impacts, and to determine whether any of the impacts are significant according to thirteen specific criteria. Part 2 of this document considers

Hokuloa Church Lease of State Lands Environmental Assessment

alternatives to the proposed action, and Part 3 discusses the existing environment and impacts associated with this action. Part 4 states the finding (anticipated in the Draft EA) that no significant impacts are expected to occur; Part 5 lists each criterion and presents the findings made by the applicant in consultation with State of Hawai‘i Department of Land and Natural Resources, the approving agency. In the EA process, if the approving agency determines after considering comments to the Draft EA that no significant impacts would likely occur, then the agency issues a Finding of No Significant Impact (FONSI), and the action is permitted to occur. If the agency concludes that significant impacts are expected to occur as a result of the proposed action, then an Environmental Impact Statement (EIS) is prepared.

1.3 Public Involvement and Agency Coordination

The following agencies, organizations and individuals have been consulted during the Environmental Assessment Process:

Federal:

Ala Kahakai National Historic Trail

County:

County Council	Department of Water Supply
Fire Department	Planning Department
Parks and Recreation Department	Police Department

State:

Department of Land and Natural Resources, Aquatic Resources Parks Division
Department of Land and Natural Resources, State Historic Preservation Division
Office of Hawaiian Affairs, Honolulu and West Hawai‘i Offices

Private:

E Mau Na Ala Hele	HELCO
Neighboring Property Owners	Puakō Community Association
Puakō Historical Society	Sierra Club
The Nature Conservancy	
Hokuloa Congregational Church Members and Various Puakō Residents/Visitors	

Copies of communications received during early consultation are contained in Appendix 1a. Appendix 1b contains written comments on the Draft EA and the responses to these comments. Various places in the EA have been modified to reflect input received in the comment letters; additional or modified non-procedural text is denoted by double underlines, as in this paragraph.

PART 2: ALTERNATIVES

2.1 Proposed Action

The proposed action is described in Section 1.1, above, and illustrated in Figures 1-4.

2.2 No Action

Under the No Action Alternative, the additional State lands would not be leased to the Hawaii Conference Foundation and the landscaping and enhanced protection of the historical integrity of the Hokuloa Church and the provision of more space for Church activities would not occur. The Hawaii Conference Foundation would continue to lease Parcel 9 under the existing Revocable Permit No. S-4350. This EA considers the No Action Alternative as the baseline by which to compare environmental effects from the action. No other alternative uses for the property are desired by the Foundation and thus none are addressed in this EA.

2.3 Other Uses of the Property Evaluated but Dismissed from Further Consideration

In a comment letter in response to early consultation, Margaret Wille suggested that the property should be considered for use as a wastewater treatment plant, as the South Kohala Community Development Plan expressed the need for one in Puakō:

The single action plan course of action for Puako was to promote the construction of a wastewater treatment system for the Puako Lots. I am wondering if the area at the Kohala end of Lot 007 could be used for this facility. If not, where in Puako could land for such a facility be acquired without substantially adding to the cost that would be imposed on the residents of Puako - as a facilities district, or however the cost would be allocated – Margaret Wille.

Although a wastewater treatment plant on the properties would require additional planning and several steps including a proposal from the County of Hawai‘i and consent from the State of Hawai‘i, the Church is not in favor of this use for several reasons. First, there are many more appropriate areas within Puakō than a shoreline location for a large and potentially unsightly facility. Behind Puakō Beach Drive is a 545-acre State of Hawai‘i property that may include a much more suitable spot for such a facility. Secondly, such a use would not be appropriate adjacent to a scenic historic site with great public use such as Hokuloa Church. Finally, the Church doubts that the County or State would choose to make the imprudent decision to locate critical infrastructure in a tsunami zone or that the community would support this location for such use.

PART 3: ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION

General Setting and Issue of Kiawe

As shown in Figure 3, the subject property consists of four parcels: TMKs 6-9-02:007, 008, 009, and 010, which are referred to throughout this EA as the *site* or the *properties* or by their parcel numbers. The term *project area* is used to describe the general environs of Puakō, the lower Lalamilo Ahupua‘a, and the South Kohala District. The site encompasses approximately 2.43 acres and is relatively flat. According to LIDAR-generated topographic maps developed for the Church by a surveyor, the maximum elevation is to approximately 10 feet above mean sea level, with most of the site higher than six feet above sea level.

The Church is located on Parcel 9, and both it and Parcel 10 contain portions of Puakō Beach Drive, which is maintained by the County of Hawai‘i. Parcels 7 and 8 are adjacent to the shoreline and also border Puakō Beach Drive. Parcel 9 is bordered on the north by Parcel 8, on the east by State land in the Conservation District (TMK 6-9-001:015), on the south by Parcel 10 (*makai* of which is TMK 6-9-001:012, on which there is a single-family home, according to County records), and on the west by a privately owned property with a single-family home (TMK 6-9-002:011).

Several emails and letters from some neighbors in response to early consultation (see Appendix 1a) expressed concern that clearing or thinning *kiawe* trees from Parcels 7 and 8 and replacing them with a less dense landscape of native and Polynesian plants will adversely impact shoreline processes, water quality, reef habitat, scenic values, agriculture, and cultural practices in the area. It is therefore important to provide a discussion of the place of *kiawe*, including its benefits and adverse effects, in the leeward shoreline ecosystem in general and in Puakō in particular.

Kiawe, also called mesquite and scientifically classified as *Prosopis pallida*, is a thorny tree in the bean family. Despite popular misconceptions, *kiawe* is not native to Hawai‘i, and instead comes from dry parts of the tropical Americas. All *kiawe* in Hawaii apparently is descended from a tree planted by Father Alexis Bachelot, the first Catholic priest in the Hawaiian Islands, from a seed he had brought with him from Paris (Wagner et al 1990:693). By 1840 it had spread throughout Honolulu and was reported from leeward sides of all the islands (Skolmen n.d.). *Kiawe* is well-adapted to dry areas where groundwater lies within a few dozen feet of the surface, and for this reason it is almost ubiquitous on the arid coasts of all the Hawaiian Islands, where the basal freshwater aquifer leaks out to the sea. Whereas rainfall can damage flowers and fruits, groundwater is ideal for the proliferation of *kiawe*. It is slow to spread on its own in Hawai‘i and is owes most of its dispersal through cattle dung.

The landscape of dry coastal area of the Hawaiian Islands such as Puakō was very different before *kiawe* became the dominant species. Because of the low availability of fresh or even brackish water aside from a few precious anchialine ponds, the natural shoreline in the dry parts of the Hawaiian Islands was sparsely vegetated, dominated by low-growing pantropical vines, herbs, and scattered specialized shrubs or trees such as *kou* (*Cordia subcordata*) and *hala*

Hokuloa Church Lease of State Lands Environmental Assessment

(*Pandanus tectorius*). Hawaiians are thought to have brought trees such as coconut (*Cocos nucifera*) and *milo* (*Thespesia populnea*, which may actually predate Hawaiians), but dense forests of any type were unknown on dry coastlines until the coming of *kiawe*.

Research conducted for the book *Puakō: An Affectionate History* (Puakō Historical Society 2000) determined that the vegetation in Puakō was dominated by coconut, *hala*, two species of sandalwood, and *kou* throughout the 19th century. An 1859 watercolor by Paul Emmert entitled *Puako, Kohala, Hawai'i*, now in the collection of the Honolulu Academy of Arts, is famous for having documented an eruption of Mauna Loa. It also illustrated several homes, the school, and Hokuloa Church under construction and surrounded by scaffolding. Although the artist depicted coconuts and some low trees of unknown identity, no *kiawe* forest is shown either along or behind the shoreline (Ibid:52). A sugar plantation that owed its existence to the deep soil found in parts of Puakō operated from 1895-1914. The plantation included the area near the present day boat ramp and shoreline to the southwest, as well as 1,500 to 1,800 acres coincident with the current extent of *kiawe* now called the Puakō forest (Ibid).

The rise of ranching throughout the islands helped spread *kiawe* far and wide. *Kiawe* was not only a reliable source of feed that could be grown in dry areas, it also provided fuel and fence posts. Cattle readily spread the seeds in their dung. *Kiawe* requires bees for pollination, and the rise of beekeeping and honey production is closely tied to *kiawe* and ranching. The previously small honey industry in Hawai'i benefited from the growth of these forests (Maui Mike 2009). The emergence of a large *kiawe* forest in Puakō apparently followed the demise of sugar and the growth of cattle ranching in the area. When the sugar mill closed down in 1914, only seven families remained in Puakō. One was that of Asakichi Goto, who lived nearest the old mill. He became the beekeeper for the Hind family, and the journal of his youngest son Ichiro has provided historians with rich details about local history. In the early days of ranching, children could earn money by gathering and drying *kiawe* beans. Ichiro Goto reported needing to walk a mile and half in the early days to find enough trees to harvest these beans (Puakō Historical Society 2000:79). The *kiawe* forest began to expand rapidly during the cattle era until it reached its current extent of thousands of acres. An aerial photo from 1947 reproduced in *Puakō: An Affectionate History* (Ibid: 96) shows the dense *kiawe* forest that is now the iconic image most residents and visitors have of Puakō.

It is clear that *kiawe* has many benefits, including firewood, charcoal, fence posts, cattle forage, honey, and even medicinal properties. With 9 percent protein in the pods and 34 percent in the seeds, *kiawe* has one of the highest protein levels for any legume (Skolmen n.d.). The tree may be most valuable as a nectar source for honey bees, as it has many flowers throughout a long flowering and it produces abundant, delicious, mild-flavored honey. The rise of the honey industry in Hawai'i corresponded with the expansion of *kiawe*. Between 1934 and 1952 *kiawe* honey exports rose from 255,000 to 500,000 pounds per year. In 2008, it was reported that Hawai'i had over 10,000 honey-producing colonies yielding almost a million pounds of honey (Maui Mike 2009). A commercial honey operation recently evaluated the area and determined that the Puakō *kiawe* forest had excellent conditions for honey production (Volcano Island Honey 2004). More recently, however, the introduced varroa mite, a tiny external parasite that

Hokuloa Church Lease of State Lands Environmental Assessment

attaches itself to honey bees and feeds on bee “blood”, has taken a huge toll on the industry (Hawai‘i State Department of Agriculture 2011). *Kiawe* also has natural medicinal properties. According to an ethnobotanist who has researched *kiawe*, its seeds produce galactomanan gum, a complex sugar that helps reduce diabetes (Logan 2008). Finally, many residents find *kiawe* an attractive and historical element of the landscape, which is one of several reasons that the Puakō Forest has been identified for protection in the *South Kohala Community Development Plan*.

There are, however, also many disadvantages associated with *kiawe*, particularly in the dense, monoculture stands such as those found on the properties in Puakō. The most obvious is that it can hinder travel on coastal trails and inflict injuries from its spines. Many comments in response to early consultation indicated dissatisfaction with the inability to utilize Parcels 7 and 8 because of their current overgrown state. Conversely, immediate neighbors appreciated the privacy afforded by these impenetrable stands on State property (see Appendix 1a).

It is also likely that *kiawe* has deleterious effects on water quality. Initial measures of sapflow on the dense *kiawe* stands at Kiholo Bay by Dr. Flint Hughes of the U. S. Forest Service indicate that these stands are extracting large quantities of fresh or slightly brackish water. This groundwater would otherwise help sustain the productivity of nearshore marine systems and also may serve the important function of cooling these communities – an important consideration in an era when rising sea temperatures are implicated in coral bleaching around the world (pers. comm. to Ron Terry 2011). What is not yet understood is the complex relationship among nutrients naturally present in the groundwater, the nutrients extracted by *kiawe* and then added to water through its litterfall, and the exact balance of nearshore ecosystem nutrient types and quantities that accommodates healthy production but does not lead to eutrophication and an unhealthy reef. However, all ecologists contacted as part of this EA believe that natural systems in the absence of *kiawe* tend to be healthy, and that on balance, *kiawe* may be adversely impacting the ecosystems through increased nitrogen loading and decreased freshwater inputs.

Apart from potential impacts to water quality, there appears to be no clear evidence that *kiawe* growing over and into nearshore waters adversely impacts reef ecology. One resident in response to early consultation stated her belief that *kiawe* actually benefits the reef:

Watching the huge schools of fish come to the surface to eat what has fallen from the trees, and viewing their calmness while they hide in and amongst the submerged trunks and branches, one realizes how important these Kiawe trees have become. They are and have been playing a direct role in creating and maintaining a healthy reef ecosystem and they have become “irreplaceable ” – Sara Fuller.

Ms. Fuller repeated this view in comments to the Draft EA (see Appendix 1b), but this is not a view shared by any biologists consulted as part of the preparation of this EA, including Dr. Richard Brock and Dr. Steve Dollar of UH Manoa, and John Coney and Dr. Leon Hallacher of UH Hilo. None concurred with the idea that *kiawe* has become an essential, or even beneficial, component of the ecosystem. Dr. Richard Brock confirmed that marine fish often gather under the overhanging branches of these shoreline trees. It is similar to the shelter that is provided by

Hokuloa Church Lease of State Lands Environmental Assessment

the deployment of an artificial reef, which serves as habitat for many coral reef species. Small juvenile fishes and some baitfish species will often shelter around non-native salt-tolerant plant species such as the red mangroves in estuarine settings in Pearl Harbor. Seeking such shelter lessens the chance of being detected by predators whether they be fish or possibly birds (the night heron, for example) wishing to feed on them. Dr. Brock has at times observed a few more fishes under overhanging *kiawe* branches in Kealakekua Bay than in the water just seaward. Dr. Hallacher noted that shading from tree branches in some cases can mirror the dawn and dusk light conditions implicated in increased hunting success by fish-eating fish and birds. This may actually favor predators over the sheltering fish. Most importantly, even if branches overhanging the shoreline genuinely afford juvenile fish some shelter, this obviously was not the case prior to the recent proliferation of *kiawe*. Millions of years of evolution in Hawaiian reef ecology clearly did not involve these newcomer trees (pers. comm. to Ron Terry 2010).

Perhaps the most hazardous side effect of unmanaged *kiawe* is fire risk. This is magnified in areas of strong winds, such as Kohala. Kohala has experienced serious fires in the *kiawe* forests and savannas that make up much of the land near the coast. In 1987, a wildfire destroyed six homes in Puakō, which sustained an additional million dollars in property damage (Logan 2008). A fire on October 28, 2007 burned 1,500 acres near Puakō Beach Drive, approaching within a quarter mile of 200 homes and prompting the evacuation of 400 residents. The construction of an emergency access road in 2009 provided an alternate evacuation route, but wildfire continues to be a serious threat to property. A program of clearing *kiawe* and creating firebreaks has removed fuel adjacent to homes and created firebreaks near roads, but it has not completely removed dead wood or the possibility of new fuels in the form of grass and *kiawe* sprouts. Some have argued for an alternative strategy of keeping large trees, thinning smaller ones, and removing the dead wood, brush and grasses below which act as “ladder fuels” that rapidly pass fire into the canopy. In this approach, the canopy is raised to enable ground fires to pass below. In some locations, a living fire break of succulent, green plants can be added to assist in suppressing ground fires.

Finally, whatever *kiawe*'s benefits, wherever it predominates it forecloses the establishment of truly authentic Hawaiian vegetation, which has ecological, cultural and aesthetic benefits. Plant preserves and reforestation efforts in coastal areas of O‘ahu and Moloka‘i, as well as Honokōhau, Kealakehe and Lapakahi on the Big Island, have all had to contend with *kiawe*, which creates a fire hazard, crowds out native plants and extracts all useable groundwater for its own use. Although *kiawe* need not be eliminated, dominance of the landscape by a dense growth of *kiawe* is inconsistent with promoting native vegetation. This subject is treated in more depth in Section 3.1.4, below.

Comment letters contained with Appendices 1a and b reflect a spectrum of opinions about *kiawe* in general and the *kiawe* contained on Parcels 7 and 8.

With this background, brief discussions of the impacts of removing/thinning *kiawe* from Parcels 7 and 8 are presented in Sections 3.1.2, 3.1.3, 3.1.4, 3.1.5, 3.1.6, 3.2.2, 3.2.3 and 3.2.4 for the subjects of flood zones, water quality, ecosystems, the scenic landscape, air quality/noise, recreation, cultural/historical resources, and agriculture, respectively.

3.1 Physical Environment

3.1.1 Climate, Geology, Soils and Geologic Hazards

Environmental Setting

The climate of Puakō is hot and dry, averaging about 10 inches of rain annually, with a mean annual temperature of approximately 76 degrees Fahrenheit (U. H. Hilo-Geography 1998:57). This portion of South Kohala typically experiences east to northeast trade winds with speeds of 15 to 30 miles per hour during nighttime hours, with a daytime sea breeze of similar strength (UH-Hilo Dept. of Geography 1998).

The surface geology is lava flows from Mauna Loa volcano dated between 3,000 and 5,000 years ago (Wolfe and Morris 1996). Soil on the properties consists primarily of Kamakoa very fine sandy loam (KGC) on slopes of up to 10 percent. The Kamakoa series consists of deep, well-drained soils formed from weathered volcanic ash. The ground is highly permeable, and runoff and soil erosion hazard are minimal. There is also a small area along the shoreline consisting of coarse sand and designated as Beaches (BH) (U. S. Soil Conservation Service 1973).

The entire Big Island is subject to geologic hazards, especially lava flows and earthquakes. The U.S. Geological Survey (USGS) classifies this part of South Kohala, which is on the slopes of Mauna Loa volcano, as Lava Flow Hazard Zone 3, on a scale of ascending risk 9 to 1 (Heliker 1990). The hazard risk is based on the fact that Mauna Loa is an active volcano that has erupted 15 times since 1900, most recently in 1984. Forty percent of the surface of Mauna Loa is covered by lava flows less than 1,000 years old.

In terms of seismic risk, the entire Island of Hawai'i is rated Zone 4 Seismic Hazard (Uniform Building Code, Appendix Chapter 25, Section 2518). Zone 4 areas are at risk from major earthquake damage, especially to structures that are poorly designed or built. The 6.7-magnitude quake of October 15, 2006, and a magnitude 6.0 aftershock did cause minor damage to the Church, which has since been repaired.

Impacts and Mitigation Measures

Geologic conditions impose no substantial constraints on the action. Although the general area is exposed to a certain amount of hazard from lava flows and earthquakes, the action presents no additional hazard to the public. The Church is aware of the seismic hazard. Neighbors expressed concern about the loss of the windbreak function if *kiawe* trees were removed or thinned (see Appendix 1a). Because of the greater surface area of their leaves, native trees can be very effective windbreaks, and the proposed action would continue to provide vegetation that functioned as a windbreak.

3.1.2 Flood Zones, Shoreline Setting and Coastal Erosion

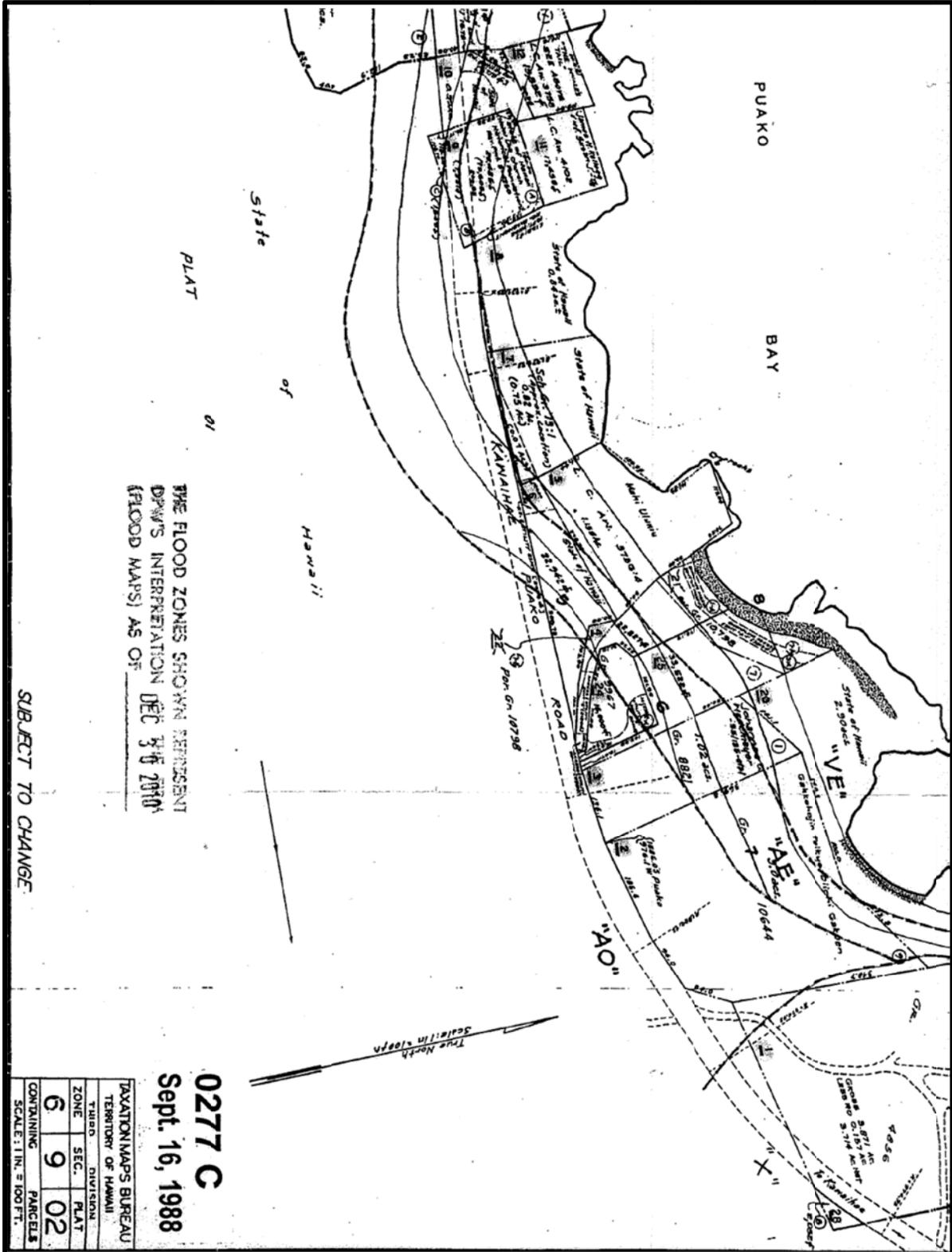
Floodplain status for many areas of the island of Hawai‘i has been determined by the Federal Emergency Management Agency (FEMA), which produces the National Flood Insurance Program’s Flood Insurance Rate Maps (FIRM). The map for the site is 1551660277C, which has been interpreted onto TMK maps of usable scale by the County of Hawai‘i Department of Public Works (Figure 5). The area of the subject property contains two designations on the FIRM maps, Zone VE and Zone AE. The majority of the properties is in Zone VE (Coastal High Hazard Area), vulnerable to high waves and tsunamis. The tsunami of March 11, 2011, extended well into the properties and left debris on the Church lot, but caused no damage.

Although rarely directly affecting the subject properties, the area just northeast is well known for flooding from a highly intermittent stream gulch. Kamakoa Stream has carved a large canyon on the slopes extending towards Mauna Kea, but upon entering the coastal Puakō area it spreads out and discharges over a wide floodplain. A layer of sediment reportedly as deep as 30 feet in places demonstrates the historical time scale of this flooding. The coastal waters between the boat ramp and the Church also contain much sediment from these discharges. Drainage improvements have alleviated the width of the flooding to some degree. (Rob Shallenberger, The Nature Conservancy, pers. comm. to Ron Terry, 2010).

Parcels 7 and 8 consist of solid pahoehoe fringed by shallow and narrow subaerial or submarine fingers of beach made up of fine particles that are a mixture of marine and terrigenous sources, overhung by *kiawe* trees (see Figure 1). Neighbors commenting as part of early consultation (see Appendix 1a) have asserted that the area is experiencing rapid erosion. One letter provided photographs of boundary pins near the shoreline; when compared to the Tax Maps, these clearly indicate that the shoreline has advanced. Rather than erosion (the surface is pahoehoe lava, which erodes very slowly), however, this may represent gradual sea level rise since the 19th and early 20th century times when the base maps used for the Hawai‘i County Tax Maps were created.

Sea level has clearly been rising and this rise is accelerating worldwide. The Earth is warming because of increases in human-produced greenhouse gases such as carbon dioxide and methane, which in turn has led to a rise in global sea level (<http://www.ncdc.noaa.gov/oa/climate/globalwarming.html>). According to the National Climate Data Center of the National Oceanic and Atmospheric Administration (NOAA), global mean sea level has been rising at an average rate of 1.7 mm/year (plus or minus 0.5 mm) over the past century, a rate which has increased over the last 10 years to 3.1 mm/year (Bindoff et al 2007). On the Big Island, eustatic (global) sea level rise is coupled with local effects of subsidence. Since 1946, sea level at Hilo on the Big Island has risen an average of 1.8 ± 0.4 mm/yr faster than at Honolulu on the island of O‘ahu, a figure that has recently decreased. The degree to which this reflects geologic subsidence versus variations in upper ocean temperature is currently not known (Caccamise et al 2005).

Figure 5 Flood Zone Map



Hokuloa Church Lease of State Lands Environmental Assessment

NOAA forecasts that sea level will rise between 0.18 and 0.59 meters over the next century, due mainly to thermal expansion and contributions from melting alpine glaciers. However, potential contributions from melting ice sheets in Greenland or Antarctica may yield much larger increases. Dr. Charles Fletcher of the University of Hawai'i, Manoa, estimates a rise of up to 1.0 meters by the end of the next century.

In Hawai'i, beach erosion, reef overtopping and consequent higher wave run-up, more devastating tsunami, and full-time submergence of critical coastal areas are likely to occur (<http://www.soest.hawaii.edu/coasts/sealevel/>). It is particularly important to evaluate the location of new infrastructure, and the State and counties must consider how to adjust zoning and setbacks so that large, expensive public buildings are not put in the path of inevitable damage and private structures do not pose undue hazards.

Impacts and Mitigation Measures

Although exceptionally high storm waves or tsunami may cause flooding in the parts of the site adjacent to the shoreline, the landscaping improvements and organized uses proposed for this area would present no additional hazard to the public based on their siting and characteristics. The action does not involve any shoreline hardening. The only alteration of areas subject to beach processes would be clearing/thinning of *kiawe*. As discussed in Section 1.1, above, some *kiawe* (and a few ironwood trees as well) would remain, while most would be cut by hand to stumps, allowing the root systems to remain while the native and Polynesian coastal trees, shrubs and herbs that would replace them were allowed to grow. There would be no substantial effects on the substrate and after some years the *kiawe* would largely have been replaced. There is no reason to believe this activity would lead to increased erosion.

Despite the assertion by some of the neighbors that *kiawe* trees are essential tools in the fight to forestall erosion and reduce sedimentation (see comments to Draft EA in Appendix 1b), *kiawe* in and of itself has little value for protecting properties from shoreline erosion, and none which cannot be equaled or exceeded by indigenous and Polynesian trees, shrubs and herbs within a matter of months or years. There is no record in the State of Hawai'i of projects to stabilize shorelines that have purposely enlisted *kiawe*. On the contrary, *kiawe* trees have been removed or reduced at many shorelines including nearby Hapuna and Waialea without deleterious effects to shoreline processes. Furthermore, it should be noted that none of the neighboring properties, including the Pickering, Whitaker and Sullivan properties, have chosen to retain dense *kiawe* vegetation on the shoreline, and instead have created landscaped places with hardened shorelines, which are known in various places in Hawai'i to contribute to erosion seaward of such walls (see photographs in Figure 1).

A scenario of modest sea level rise would not likely affect the integrity or use of the Church or landscaped areas in any substantial way. If sea level rises dramatically, although the Church and landscaped areas may be affected, they would of course be among countless areas to be affected by what would be the largest disaster in the Hawaiian Islands since human settlement began.

3.1.3 Water Quality

Environmental Setting

Chapter 54 of Hawai'i Administrative Rules "Water Quality Standards" classifies the nearshore waters at Puakō as Class AA, meaning that these waters should remain in their natural pristine state as nearly as possible, with an absolute minimum of pollution or alteration of water quality from any human-caused source or action. Furthermore, the wilderness character of the water should remain protected with no zones of mixing permitted in this class. Class AA waters can be used for oceanographic research, the support and propagation of shell fish and other marine life, conservation of coral reefs and wilderness areas, compatible recreation, and aesthetic enjoyment.

No original research on water quality was performed as part of this EA, but the author consulted EAs for larger projects that had been conducted in nearby areas and discussed the project and its setting with water quality experts. Water quality in Puakō is generally considered to be good, although the reef bottom in the northeastern coastal waters near the Church has abundant sediment associated with episodic flooding from Kamakoa Stream. Of most concern to residents are the potential effects of inadequately treated sewage. The difficulty of implementing long-term monitoring that yields the quality and quantity of data truly reflecting the range of conditions over the year means that some questions about water quality are not resolved.

Marine surveys conducted for the Hāpuna Beach State Recreation Area Expansion EIS (Hawai'i State DLNR, Division of State Parks 2001), characterized the physical, chemical, and biological qualities of the nearshore waters in the Hapuna-Puakō area (Marine Research Consultants 1991). Two of the transects were within the Puakō area. A recent EA for the Puakō Marine Center (UH Hilo 2009) provided a valuable summary and evaluation of this and other water quality research.

The Marine Research Consultants water quality work involved 57 water samples from five stations in transects extending from the shoreline to about 250 meters off shore. It included analysis of 13 water chemistry constituents including all parameters specified in DOH water quality standards. Several dissolved nutrients (NO_3^- [nitrates], TN [total nitrogen], PO_4 [phosphates], TP [total phosphorus] and Si [silica]) displayed horizontal gradients, with highest values closest to shore and lowest values at the most seaward sampling sites, indicating the expected salinity gradient increasing with distance from shore. These patterns indicate that groundwater is entering the marine environment near the shoreline and mixing with oceanic water. Along with horizontal gradients in water chemistry constituents, there is an indication of vertical stratification within the water column. Such stratification is the result of incomplete mixing of a low density surface layer originating from groundwater and stream water with an underlying layer of denser oceanic water. Other water chemistry constituents that are not related to groundwater efflux (DON [dissolved organic nitrogen], DOP [dissolved organic phosphorus], and NH_4^+ [ammonium]) did not display the steep gradients with respect to distance from the shoreline. There was elevated turbidity and Chl a (Chlorophyll a) in the corner of Hapuna Bay, possibly as a result of planktonic populations that may be trapped within. Application of a mixing model relating the concentration of dissolved nutrients to salinity revealed that most of

Hokuloa Church Lease of State Lands Environmental Assessment

the nutrient content (with the exception of NH_4^+) in the coastal area is the result of mixing of groundwater with ocean water. There was no indication of subsidy of NO_3^- to natural groundwater input from any activities on land. Numerous water samples exceeded State DOH standards for NO_3^- . These samples indicate that the dissolved materials in excess of DOH standards are primarily as a result of natural processes of groundwater.

The Hawai'i Department of Health (DOH) conducts shoreline sampling for fecal indicator bacteria and other water parameters in Puakō, but sampling has been relatively infrequent and irregular. Exceedances of water quality standards for fecal indicator bacteria occurred in 1987 and again between 1990 and 1993 (Teytaud 2001). A private monitoring study of a number of sites within Puakō Bay analyzed three bacterial indicators and total salinity over a ten-week period beginning October 2001 (Bennett and Klein 2002). The bacterial measures fell well below regulatory standards, but the authors stated that statistical analysis of the contaminant data indicated fecal origins. The latest data on Puakō is from the 2006 *State Of Hawai'i Water Quality Monitoring and Assessment Report: Integrated Report to the U. S. Environmental Protection Agency and the U. S. Congress Pursuant To Sections §303(D) and §305(B), Clean Water Act (P. L. 97-117)*. This includes data collected from State surface water bodies over the prior six years, and the final version of this report was approved by the EPA in 2010. The stations named *Puako* and *Puako Bay* are listed as in attainment for fecal indicator bacteria.

However, none of these short-term water quality studies capture the full range of seasonal variability found in an environment with widely varying rainfall and ocean waves and currents, as well as increasing human influence. Puakō has more than 150 residential lots as well as a 38-unit condominium. With no municipal sewer service, wastewater is disposed of in cesspools, septic tanks, composting toilets, or small secondary treatment systems. Only a fraction of the wastewater undergoes adequate treatment. According to a proposal to the Puakō Community Association for a community-funded program of baseline assessment and long-term monitoring for the area:

Based on the above observations and common sense, many residents suspect there to be some degree of contamination of nearshore waters by sewage leachates — if not direct flows via lava tube systems and cracks. The question is not thought to be whether these events occur, but where, when, and how often; and whether or not they pose significant dangers to human, wildlife, or ecosystem health. (Teytaud 2001)

Impacts and Mitigation Measures

The proposed lease and actions on the properties have only very limited potential to affect water quality in Puakō. Clearing/thinning of *kiawe* will be gradual and undertaken in a manner that minimizes the potential for sedimentation (see letter from Teytaud in Appendix 1b for opposite view). Restoring a natural coastal understory with plants such as *naupaka* could decrease the possibility of sediment transfer from the now bare soil under the *kiawe* trees towards the ocean during rainfall or floods. Church events that involve the generation of larger quantities of wastewater than normal will use portable toilets.

Hokuloa Church Lease of State Lands Environmental Assessment

The following Best Management Practices (BMPs) will be implemented:

- Clearing will occur gradually.
- All clearing will be by hand or small power tools (chainsaws, etc.), with no use of heavy equipment that would disturb the ground.
- Some large *kiawe* and ironwood trees will be left intact to provide shade and scenery.
- Most *kiawe* removal will occur through cutting the trees to stumps, leaving root systems intact. Native, Polynesian and historic period plants will be planted to replace the *kiawe* in a gradual manner, and by the time the stumps degrade this vegetation will have matured.
- Most of the planned new plants are highly adapted to dry coastal conditions, and irrigation will be limited primarily to the amount needed to initially establish plants. The Church will use only small amounts of fertilizer and no pesticides.

3.1.4 Flora and Fauna

Environmental Setting

The vegetation varies by area. On Parcel 10, vegetation has been planted by various parties and maintained periodically to provide a buffer from the roadway. Much of Parcels 9 and 10 is within the roadway of Puakō Beach Drive, which has paved travel ways and bare dirt shoulders that are maintained free of weeds. A very small corner of Parcels 9 and 10 is *mauka* of Puakō Beach Drive, in a fenced area of *kiawe* and buffel grass (*Cenchrus ciliaris*). Most of the area in these properties, however, consists of a dense tangle of *kiawe* with very few other plants. Several palms and ironwoods are found on the far northeastern section. Table 1 is a listing of plants observed.

Animals likely to be on the site are the alien mammal mongoose (*Herpestes auropunctatus*), various species of rats and mice, feral cats, and alien birds such as Japanese White-eye (*Zosterops japonicus*) and Common Mynah (*Acridotheres tristis*). Migratory waterbirds such as *ulili* (*Heteroscelus incanus*) and *kolea* (*Pluvialis fulva*) utilize the rocky shelves and tidepools of Puakō. Wild beehives are present in a few of the *kiawe* trees.

Hokuloa Church Lease of State Lands Environmental Assessment

Table 1
Plant Species on Hokuloa Church Properties

Scientific Name	Family	Common Name	Life Form	Status*
<i>Alpinia purpurata</i>	Zingiberaceae	Red ginger	Herb	A
<i>Artocarpus altilis</i>	Moraceae	Breadfruit	Tree	A
<i>Boerhavia coccinea</i>	Nyctaginaceae	Boerhavia	Herb	A
<i>Bougainvillea sp.</i>	Nyctaginaceae	Bougainvillea	Shrub	A
<i>Carica papaya</i>	Caricaceae	Papaya	Tree	A
<i>Casuarina equisetifolia</i>	Casuarinaceae	Ironwood	Tree	A
<i>Cenchrus ciliaris</i>	Poaceae	Buffel grass	Grass	A
<i>Coccoloba uvifera</i>	Polygonaceae	Sea grape	Tree	A
<i>Cocos nucifera</i>	Arecaceae	Coconut	Tree	A
<i>Cordia subcordata</i>	Boraginaceae	Kou	Tree	A
<i>Cordyline fruticosa</i>	Agavaceae	Ti	Shrub	A
<i>Cynodon dactylon</i>	Poaceae	Bermuda grass	Grass	A
<i>Eleusine indica</i>	Poaceae	Wire grass	Grass	A
<i>Epipremnum aureum</i>	Araceae	Pothos vine	Vine	A
<i>Ficus microcarpa</i>	Moraceae	Chinese banyan	Tree	A
<i>Hibiscus arnottianus</i>	Malvaceae	Kokio keokeo	Shrub	A
<i>Hibiscus sp.</i>	Malvaceae	Ornamental hibiscus	Shrub	A
<i>Morinda citrifolia</i>	Rubiaceae	Noni	Shrub	A
<i>Nephrolepis exaltata subsp. hawaiiensis</i>	Nephrolepidaceae	Ni‘ani‘au	Fern	E
<i>Nephrolepis multiflora</i>	Nephrolepidaceae	Sword fern	Herb	A
<i>Osteomeles anthyllidifolia</i>	Rosaceae	‘Ulei	Shrub	I
<i>Pandanus tectorius</i>	Pandanaceae	Hala	Tree	I
<i>Phoenix sp.</i>	Arecaceae	Date palm	Tree	A
<i>Phymatosorus grossus</i>	Polypodiaceae	Maile-scented fern	Fern	A
<i>Plumeria sp.</i>	Apocynaceae	Plumeria	Shrub	A
<i>Portulaca oleracea</i>	Portulacaceae	Pig weed	Herb	A
<i>Prosopis pallida</i>	Fabaceae	Kiawe	Tree	A
<i>Pritchardia hillebrandii</i>	Arecaceae	Loulu lelo	Tree	xx
<i>Samanea saman</i>	Fabaceae	Monkeypod	Tree	A
<i>Scaevola sericea</i>	Goodenaceae	Naupaka	Shrub	I
<i>Tevetia peruviana</i>	Apocynaceae	Be-still tree	Tree	A
<i>Thespesia populnea</i>	Malvaceae	Milo	Tree	I
<i>Tournefortia argentea</i>	Boraginaceae	Tree heliotrope	Tree	A
<i>Waltheria indica</i>	Sterculiaceae	Uhaloa	Herb	I
<i>Wilkstroemia uva-ursi</i>	Thymelaceae	‘Akia	Herb	E

Notes: Alien (A), Endemic (E), and Indigenous (I)

No threatened or endangered plants or animals or terrestrial ecosystems requiring special protection are present on the properties themselves. It should be noted that several residents hold the belief that *kiawe*-dominated ecosystems have special value. For example, the following statements were received in response to early consultation (see Appendix 1a):

Hokuloa Church Lease of State Lands Environmental Assessment

These existing habitats [on Parcels 7 and 8] rely on the Kiawe and Ironwood trees and these trees have played a key role in sustaining a healthy environment in Puako for over a hundred years. Both in the ocean and on land the abundance of wildlife raised, nurtured, living and protected by the trees on these 2 State owned parcels is tremendous. No where else in the Puako shoreline area will you find this protected ecosystem left – Sara Fuller.

These lots represent the last wooded land along the Puako shoreline and anything done to these woods can adversely affect the shoreline, the animal life in the woods, and the marine life along the shore – Mimi Pickering

Conservation biologists in Hawai‘i believe that native ecosystems, which represent species that have evolved together for hundreds of thousands or millions of years and support complex ecological webs and many rare and special organisms, are far more valuable. Despite the good qualities of *kiawe*, to the extent that invasive species such as *kiawe* displace such native ecosystems, they are generally considered to have adverse effects on the ecosystem (Cuddihy and Stone 1990; Gallaher, T. and M. Merlin 2010). Land below 1,000 feet in elevation receiving less than 20 inches of annual rainfall is now almost totally dominated by alien vegetation. Where there is subsurface water, *kiawe* is dominant (Smith n.d.).

On-the-ground managers of ecological restoration in projects in Hawai‘i frequently battle with this tenacious invader. The *Ka‘ena Point Ecosystem Restoration Project* (Hawai‘i DOFAW 2007) dealt with the non-native plants in the area competing with natives. The worst were *koa haole* (*Leucaena leucocephala*) and Guinea grass (*Panicum maximum*), but *kiawe* was also very common. Among the important goals for the conservation work by The Nature Conservancy of Hawai‘i at Mo‘omomi Preserve on Moloka‘i is removal of *kiawe* (TNC Hawai‘i 2011). The Molokai Land Trust removed 0.6 acres of *kiawe* in 2010 after receiving a U.S. Fish and Wildlife Service grant to learn passive restoration techniques used by The Nature Conservancy. A 2009 proposal to create an ‘Ilio Point Natural Area Reserve on the northwestern tip of Moloka‘i (hawaii.gov/dlnr/dofaw/nars/ilio.doc) cited a need to protect and help restore a coastal ecosystem that also contains significant geological features of lithified sand dunes, sea cliffs, and subfossil bird bones and land snails. The proposal identified as priority threats to these resources ungulates such as Axis deer (*Axis axis*), small predatory mammals, and non-native plants, especially *kiawe*. Biologists from TNC noted that with the removal of invasive plants, especially *kiawe* on dune ecosystems, native plants often will recolonize dunes naturally, as shown in Ka‘ena Point NAR and Mo‘omomi Preserve. The importance of *kiawe* removal to allow native plant communities to regenerate in Moloka‘i was recognized in a \$220,000 grant by the Pacific Region Coastal Program of the Department of the Interior (<http://recovery.doi.gov/press/bureaus/us-fish-and-wildlife-service/pacific-region-coastal-program/>). *Kiawe* is also a recognized problem on the Big Island, at the La‘i‘ōpua Plant Preserve in Kealakehe (Hawai‘i State DHHL 2008) and the Kaloko-Honokōhau National Historical Park.

Hokuloa Church Lease of State Lands Environmental Assessment

Aquatic Biology

No streams, wetlands or special aquatic sites such as anchialine ponds are present on the property. However, South Kohala coastal waters have excellent marine biota, including healthy coral-based ecosystems. Several studies of the Puakō reef ecology have been conducted over the years. Teytaud (2001) noted a three-year publicly-funded study by Hayes et al. (1982) to provide initial survey data to evaluate the potential for reef conservation and management status for Puakō, an area with low basaltic shorelines and some white sand beaches. The work involved quantitative surveys of species composition by major habitat type, abundance, distribution, diet, and sexual maturity. Researchers also documented fishers and their gear and techniques in order to estimate catch, fishing effort, and the effects of fishing pressure. This survey also focused on corals, echinoderms, and large crustaceans and mollusks.

Surveys of the Puakō and Hapuna Beach area's benthic and reef fish community structure undertaken in the 1990s as early work for the Hapuna Recreational Area EIS (Marine Research Consultants (1991) divided the area into three basic zones: a shallow nearshore with a flat reef platform; a mid-reef of irregular bottom topography with extensive reef growth; and a deep reef zone of dome-shaped elongated ridges with accumulated coral growth, separated by sand channels. This is somewhat unusual for West Hawai'i in the lack of a deep reef slope. Nine transects evaluated at three stations located offshore of the property showed that the coral community differs substantially among zones. The shallow reef bench has small encrustations of corals that can withstand the rigors of sediment, freshwater input, and water motion. The mid-depth has large coral colonies of *Porites lobata*, indicating relative protection from wave stress. The deep reef ridges have accumulated a growth of mainly *P. compressa*. While coral cover of the hard bottom increases moving seaward, diversity decreases. Teytaud (2001) noted that an episode of particularly intense storm waves in 1980 reduced much of the coral cover to rubble, but that it appeared that significant coral recovery had since occurred by 2001.

Marine Research Consultants (1991) depicted a reef fish community structure fairly typical of the assemblages found in undisturbed Hawaiian reef environments. It is characterized by six general categories: juveniles, plantivorous damselfishes, herbivores, rubble-dwellers, swarming tetrodons, and surgeon fishes. The relative scarcity and timid behavior of some fishes indicates that the area had been subjected to moderate fishing pressure.

The Nature Conservancy conducted 47 fish surveys of hard-bottom reef areas from 10 to 50 feet deep at the Puakō reef in the spring of May 2009. The team of divers used survey methods similar to recent statewide surveys of Marine Life Conservation Districts (MLCDs) and open areas, allowing comparison with 25 other locations in the State, and the survey targeted questions of interest for such comparisons. They found that the mean fish biomass at Puakō of 74.4 g m² was among the highest of the non-MLCD sites for which TNC had data, but about 25 percent less than the average of West Hawai'i MLCDs. However, the biomass of the target fishes for fishermen was only about half that of West Hawai'i MLCDs, with large individuals of those species particularly depleted. The introduced grouper *roi* (*Cephalphalis argus*) were extremely abundant at Puakō. Overall, TNC judged the Puakō reef to be in fairly good condition. Total fish

Hokuloa Church Lease of State Lands Environmental Assessment

biomass and species richness were relatively high in comparison to most of the reef areas for which TNC had data, and higher than nearly all non-MLCD sites. The high total fish biomass and richness together with the good reef habitat condition, exhibiting high coral cover and structural complexity, indicate that this area can sustain abundant fish communities.

Because of both its value as a convenient living laboratory and its potential susceptibility to human impact, Puakō hosts many reef assessment programs. There is a cooperative project among researchers from Washington State University, UH Hilo, and the DLNR Division of Aquatic Resources to conduct long-term monitoring of fish populations and coral communities at a few sites in Puakō using video-transect methodology. UH Hilo's QUEST program has students conducting annual summer surveys of the corals, mobile invertebrates, and fishes for college credit. The Hawai'i Preparatory Academy has cooperated with the National Marine Fisheries Service since 1992 to monitor the green turtle population at Puakō (Teytaud 2001).

The Nature Conservancy has also prepared the *Puako Conservation Action Plan* (TNC 2008), which recognizes that Puakō is a unique marine community with a reef protected from all swell directions except due west, making this the most sheltered coastline in the State. As noted by others previously, this protection has encouraged up to 80 percent coral coverage in some areas. The protected, shallow reef near shore acts as a nursery for juvenile fishes. The reef drops off abruptly to about 30 feet, with canyons, arches, and lava tubes offering diverse habitats for marine biota. Puakō has high fish populations and large schools of herbivorous fishes.

Marine regulations are complex in Puakō, with a no-net Fishery Management Area (FMA) sandwiched between a Fisheries Replenishment Area (FRA) to the south and a Marine Life Conservation District (MLCD) in Waialea Bay to the north. The short segment of coast between Puakō and Waialea in front of the boat ramp is an area with no official protection. These different levels of protection in a stretch of seven miles of coastline make management difficult. The potential for substantial future urban development *mauka* of Puakō has created concern that marine resources may one day experience critical levels of overuse and pollution. The highly porous nature of basaltic rock can lead to high levels of development-derived nutrients within groundwater. The Nature Conservancy's *Puako Conservation Action Plan* targeted for protection the lava benches (used by green sea turtles as haul-out areas), the fringing reef, the reef species assemblage, and the green sea turtle.

In summary, the waters off Puakō are used by boaters, swimmers, divers, fishers and researchers, not to mention an abundance of native species. Maintenance of water quality and habitat is essential for preservation of natural ecosystems that they utilize.

Impacts and Mitigation Measures

Because of the relatively minor nature of the action and the lack of native terrestrial ecosystems and threatened or endangered plant species, leasing and use of the property are not likely to cause adverse biological impacts to terrestrial resources. The applicant is planning minimal

Hokuloa Church Lease of State Lands Environmental Assessment

landscaping, bringing in native plants that are adapted to the dry, warm climate of the area and do not require excessive watering or maintenance.

The plan includes removal or thinning of *kiawe* on Parcels 7 and 8 and replacement with native, Polynesian, and 19th century historical period plants. These plants have no chance of regeneration or survival if the current thick *kiawe* growth is left intact. *Kiawe* tends to crowd out native plants, consume all available shoreline groundwater, and oversupply the nearshore water with nutrients that encourage the growth of algae, whose decomposition robs the water of oxygen. Although attractive in certain contexts and not inappropriate at low densities, thick growths of *kiawe* are ecologically damaging. Removal and thinning of *kiawe* on the subject properties and replacement with other plants, particularly natives, will restore some native character to the vegetation.

Despite the assertion by a neighbor (see Appendix 1a) that the wild beehive(s) on the 1.5-acre area of Parcels 7 and 8 currently pollinate a large portion of the Puakō area, it is likely that there are other beehives present in the 1,500 acres of *kiawe* forest in Puakō that also contribute to pollinating the *kiawe* forest. Removal and/or thinning of what represents less than 0.1% of the *kiawe* in Puakō should have no effect on the ability of *kiawe* in the region to set seed, although it should be pointed out that bees around the Big Island are rapidly declining because of a combination of bee diseases. The Church will consult with a Big Island beekeeper to determine what should be done if hives are encountered in trees that are planned for removal or if hives pose a threat to users of the properties.

In terms of effects to aquatic biology, the action should not have any adverse effects. As discussed in the context of water quality previously, clearing/thinning of *kiawe* will be gradual and undertaken in a manner that minimizes the potential for sedimentation, the major potential effect on water quality and thus aquatic organisms. As discussed in Section 1.1., there is no basis in fact for the assertion by some commenters that overhanging branches of *kiawe* on the properties are the key to reef health in Puakō. Although some juvenile fish may take advantage of this shelter, it is not necessary for their survival, as this situation did not exist prior to the proliferation of *kiawe* in the last 200 years. Millions of years of evolution of the reef ecology clearly did not involve these newcomer trees. Removal of overhanging *kiawe* will have the benefit of restoring the lava benches for use as haul-out areas by green sea turtles.

3.1.5 Scenic Resources

Environmental Setting

Puakō Bay (specifically the shoreline area including TMKs 6-9-002:007 and 008, which are part of the subject properties, along with TMK 6-9-001:002, which is not), is noted as being of particular beauty in the County of Hawai‘i General Plan (County of Hawai‘i 2005).

Hokuloa Church Lease of State Lands Environmental Assessment

Impacts and Mitigation Measures

There will be no adverse impacts to views of or from the areas discussed in the General Plan. The landscaping improvements will not have an adverse impact to scenery. As shown in Figure 4, current plans call for minimal alteration of the Puakō Beach Drive frontage, with the only substantial addition being the extension of a low lava wall matching the existing Church wall. The view of the *kiawe* would remain, although it would be thinned out to an extent that passing drivers, bicyclists, joggers and walkers would have glimpses of the ocean. From the ocean side, the view of tangled *kiawe* trunks on the shoreline (see photograph in Figure 1) would be exchanged for a more natural landscape of native plants such as *milo*, *naupaka* and coconut. The dense background of *kiawe* would remain, along with several of the tall ironwood trees. The Church use areas, which involve simple clearings amid a landscape of native, Polynesian, and period plants set back from the shoreline, would be only subtly visible except during use. An entirely new view of the coast would be opened up for hikers on the public coastal trail, which is currently within an area that is almost inaccessible to the public and covered with *kiawe* trunks. ~~The only developed structures will be small storage sheds, one tucked in the corner of a wall near the Church on Parcel 10 and another on Parcel 7 that will be obscured by landscaping.~~

3.1.6 Air Quality and Noise

Environmental Setting

Noise is light to moderate and is derived from passing motor vehicles, landscaping on various properties, and Church activities. Air pollution at the site, which is far removed from industrial land uses and major highways, is generally good and there are no permanent air pollution problems. The air quality of South Kohala is on occasion affected by volcanic emissions of sulfur dioxide, which convert into particulate sulfate and produce a volcanic haze (vog). Drier areas experience blowing dust, especially during construction in high wind episodes. Wildfires in the *kiawe* forest periodically affects Puakō, temporarily but seriously degrading air quality.

Impacts and Mitigation Measures

The action would not affect air quality or noise levels, except for very minor and brief effects during landscaping activities, which will involve mainly hand tools (including chain saw work to remove *kiawe*) and will be limited to daytime hours. To the extent that the action reduces the fuel load of *kiawe* trees, it will help reduce fire hazard and consequent potential air quality problems.

3.1.7 Hazardous Substances, Toxic Waste and Hazardous Conditions

Based on onsite inspection, it appears that the site contains no hazardous or toxic substances. In order to ensure that landscaping-related damage is avoided or minimized, the Church will inform all crews working on the property that they must replant or otherwise stabilize cleared areas as soon as possible, and they must prevent landscaping material including packaging, petroleum

Hokuloa Church Lease of State Lands Environmental Assessment

products, fertilizers, plant material, wastes and debris from blowing, falling, flowing, washing or leaching into the ocean.

Wildfires throughout the years have threatened the community, including disastrous fires in 1987 and 2007. Wildfire is a serious threat to health and property in Puakō. The proposed action would reduce the fuel load of the properties, clearing or thinning much *kiawe* and removing much of the ground level fuel and replacing it with green, succulent vegetation, lessening fire danger.

3.2 Socioeconomic and Cultural

3.2.1 Land Use, Designations and Controls

Existing Environment

The subject properties are owned by the State of Hawai‘i. Two of the lots, Parcels 7 and 8, are adjacent and bordered by Puakō Bay Drive on the east or *mauka* side and the shoreline on the west or *makai* side. There is a privately owned Parcel north of Parcel 7. Parcels 9 and 10, which are adjacent to each other and also to Parcel 8, are bordered on the *mauka* side by State land and by privately owned properties on the *makai* side.

Land use designations and current use and encumbrances for the properties are listed in Table 2.

Table 2. Status of Properties

TMK	Land Use Designation			Area (acres)	Current Use Status/ Encumbrance
	LUC	County GP	County Zoning		
6-9-002:007	Urban	Open	<u>Open</u>	0.75	Portion encumbered by LOD S-26,994 for perpetual access and utility easement in favor of 6-9-002:005
6-9-002:008	Urban	Open	<u>Open</u>	0.84	Vacant and unencumbered
6-9-002:009	Urban/ Conservation	<u>Open, Low and Medium Density Urban</u>	<u>Open/A-5a</u>	0.45	RP No. S-4350 to Hokuloa Church; GL S-4858 for term access easement in favor of 6-9-002:011; LOD S-28,611 for perpetual access and utility easement in favor of 6-9-002:012
6-9-002:010	Urban/ Conservation	<u>Open and Low Density Urban</u>	<u>Open</u>	0.39	LOD S-28,611 for perpetual access and utility easement in favor of 6-9-002:012

All of the properties are located in the County Special Management Area (SMA). The proposed uses are allowed within these land use designations. A Shoreline Setback Variance is not expected to be required for the action, as the only proposed activities within the shoreline setback (40 feet from the shoreline) is construction of a trail, with an accompanying low *naupaka* hedge *mauka* of the trail, inside of which would be hidden a 4-foot tall hogwire fence that would subtly

Hokuloa Church Lease of State Lands Environmental Assessment

demarcate the Church use area (see Figure 4). The Planning Department was consulted as part of this EA process to determine if this feature requires a Shoreline Setback Variance; if necessary, this EA will serve as part of the process for obtaining a Shoreline Setback Variance.

3.2.2 Socioeconomic Characteristics and Recreation

Existing Environment

The site is within the South Kohala District of the island of Hawai‘i. The town of Puakō is isolated from other communities, but recreational and resort uses are present nearby. The shoreline in front of many portions of Puakō is used by residents and visitors for fishing, swimming, diving, gathering, hiking and sunbathing. Public access to and along the shoreline is provided by trails in easements found periodically between residences along Puakō Beach. Because of the tangled growth of *kiawe* on the shoreline, use of the site is extremely restricted, although some boaters who moor in Puakō Bay traverse the north end of Parcel 7 to access their boats and may even store boats on the shoreline.

Some members of the community believe that public use of the State Parcels is very important:

It is my understanding that when the Church received the right to use this state property the requirement was that it be available to other public and community groups...and not just under the control of this particular church. That public use provision should be specified for all state land to be leased to the Church. – Joseph and Helen Pickering

Hoku Loa Church’s original lease was given on the condition that there be free public access on the state parcel. Consistent with that condition, there has been neighborhood and general community uses allowed here – obviously subject to reasonable conditions. A similar condition and requirement should be part of any lease on the other parcels that the Church would like to lease. - Margaret Wille

Other community members do not favor broad public use of the State Parcels:

The Whitakers believe that the Expansion Properties should not be converted into a public park. – Gary S. Kerwood

Focused broadly on a long stretch of the coastline of the island of Hawai‘i, the developing Ala Kahakai National Historical Trail (NHT) is an important recreational resource for South Kohala. Established in 2000 for the preservation, protection and interpretation of traditional Native Hawaiian culture and natural resources, the Ala Kahakai is a planned 175-mile trail corridor full of cultural and historical significance. The National Park Service (NPS) prepared an Environmental Impact Statement (EIS) and a Comprehensive Management Plan (U.S. Department of the Interior 2008), which provide the information in this EA. It traverses hundreds of ancient Hawaiian settlement sites through more than 200 *ahupua‘a*. Cultural resources along the trail include several important *heiau*, royal centers, *kahua* (house site foundations), *loko ‘ia*

Hokuloa Church Lease of State Lands Environmental Assessment

(fishponds) *ko ‘a* (fishing shrines), *ki ‘i pohaku* (petroglyphs), *holua* (stone slide), and *wahi pana* (sacred places). Natural resources include anchialine ponds, *pali* (precipices), nearshore reefs, estuarine ecosystems, coastal vegetation, migratory birds, native sea turtle habitat, and several threatened and endangered species of plants and animals.

The EIS considered No Action (A), Single Trail (B), and Ahupua‘a Trail System (C) alternatives. Alternative C, the preferred alternative, is based on the traditional Hawaiian trail system in which multiple trail alignments within the *ahupua ‘a* (mountain to sea land division) are integral to land use and stewardship. Under the proposed action, a continuous trail parallel to the shoreline would be protected; however, on public lands and where landowners wish it, the Ala Kahakai NHT could include inland portions of the *ala loa* or other historic trails that run lateral to the shoreline, and the shoreline *ala loa* would be connected to ancient or historic *mauka-makai* (mountain to sea) trails that would have traditionally been part of the *ahupua ‘a* system. During the 15-year planning period for the trail planning effort, the priority zone from Kawaihae south through Pu‘uhonua o Hōnaunau National Park to Ho‘okena (a stretch that includes the project site) will be the focus for developing a continuous publicly accessible trail, but trail administration and management would protect and preserve trail sections outside of that zone as feasible. Through an agreement, the State of Hawai‘i could convey to the NPS a less-than-fee management interest in trail segments that are State-owned under the Highways Act of 1892 or otherwise on State land within the Ala Kahakai NHT corridor. The NPS would then be responsible for managing these segments and federal law would fully apply. However, in cooperation with the NPS, local communities of the *ahupua ‘a* would be encouraged to take responsibility for trail management using the traditional Hawaiian principles of land management and stewardship. The Ala Kahakai Trail Association would be expected to be robust enough to play a major part in trail management, promotion, and funding.

Table 3 provides information on the socioeconomic characteristics of the project area – the Puakō Census Designated Place (CDP) – along with those of Hawai‘i County as a whole for comparison, from the United States 2010 census. It should be noted that the Puakō CDP includes much of the Mauna Lani resort area as well as the village of Puakō.

Table 3. Selected Socioeconomic Characteristics

Characteristic	Island Of Hawai‘i	Puakō CDP
Total Population	185,070	772
Percent Caucasian	33.7	73.2
Percent Asian	22.2	11.1
Percent Hawaiian/Pacific Islander	12.1	1.2
Percent Two or More Races	29.5	12.7
Percent Under 18 Years	22.8	11.5
Housing Units	67,096	2,229
Percent Housing Vacant	18.5	82.4

Source: U. S. Bureau of the Census. 2010 Census of Population

Hokuloa Church Lease of State Lands Environmental Assessment

Impacts and Mitigation Measures

No adverse socioeconomic impacts are expected to result from the action, which involves leasing of State Parcels for landscaping and minor outdoor uses for an existing, actively used church that also functions as a community and cultural gathering place. Residential-zoned property and residential uses surround the subject property, and the expanded landscaping and continued use of the Church will improve shoreline access and can be conducted in a manner so that it will not adversely affect neighbors.

Several letters in response to early consultation addressed the issue of a coastal trail (see Appendix 1a). Debbie Chang, a long-time trail advocate, stated that she wanted to ensure that as part of the lease:

...the State will comply with HRS §171-26, which requires the Board of Land and Natural Resources *prior* to the disposition of any public lands to ensure that reasonable numbers of rights-of-way are established for public beach and hunting access, etc.

Ms. Chang also asked that “the lessee be required to allow reasonable public passage within the 40-foot shoreline setback area of Parcels 7 and 8 as a condition of the lease.” She further stated:

It will be important to protect any historic trail remnants and other cultural sites that may be found when the thick *kiawe* growth is cleared. The lessee and State should work closely with the Ala Kahakai NHT to determine how the subject properties will be affected by the NHT’s route.

An officer with E Mau Na Ala Hele, a private trails-access advocacy group, wrote:

We are aware that a trail along the east side of parcel 007 providing access to the shoreline is currently in use. Provision for a permanent access trail to the shoreline should be made part of the lease agreement – Toni Thompson.

A neighbor expressed concern about members of the public using the leased property and or the trail:

The use of foul and abusive language and threatening behavior are all too frequent now and can be expected to increase substantially when this development is complete – Mrs. W.A. Sullivan.

Planning for design has included coordination and meetings with officials from the Ala Kahakai National Historic Trail and E Mau Na Ala Hele. In coordination with these entities, the Church has made room in the design for a 10-foot wide walking trail that will link up with an existing shoreline trail to the northeast. It is expected that these groups will assist with providing the labor and materials to construct the actual trail.

Hokuloa Church Lease of State Lands Environmental Assessment

Concerning the route of the trail, there have been several inspections of Parcels 7 and 8 and archaeologists have concluded that there are no archaeological features present, including remnants of an original trail, if it was ever indeed present on these properties. The location of the trail will thus be near the shoreline. The Church is willing to have an easement for the trail recorded. It has been suggested that the easement not dictate the actual location of the trail on the property, as the trail might require relocation if significant sea level rise occurs; rather, the easement should simply encumber a 10-foot trail near the shoreline. This option will be discussed with DLNR at the time the lease terms are developed. The Church will also provide a *mauka-makai* access at the northeast end of Parcel 7 for the public to access the trail. In response to a suggestion by Waimea resident Margaret Wille, the Church would welcome the placement by The Nature Conservancy or other groups of educational signs concerning Puako's marine environment and history near the trail.

Regarding behavior of those using the leased property and the trail, the Church reports that to its knowledge, none of its activities have involved or ever will involve foul and abusive language or threatening behavior. The use of the property *mauka* of the shoreline trail will be restricted to Church activities or of public groups permitted to use the property by the Church. The behavior of those using the shoreline trail (which would eventually be constructed as part of the Ala Kahakai National Historic Trail regardless of the Church's use) and the general shoreline area cannot be controlled by the Church.

3.2.3 Cultural and Historic Resources

Historic and Cultural Background

The first inhabitants of Hawai'i were believed to be settlers who had undertaken difficult voyages across the open ocean. For many years, researchers have proposed that early Polynesian settlement voyages between Kahiki (the ancestral homelands of the Hawaiian gods and people) and Hawai'i were underway by A. D. 300 (Kirch 1985), although recent work suggests that Polynesians may not have arrived in Hawai'i until at least A. D. 1000 (Kirch 2010).

The initial inhabitants of Hawai'i are believed to have originated from the southern Marquesas Islands and settled initially on the windward side, eventually expanding to leeward areas. Early Hawaiian farmers developed new strategies and tools for their new environment (Kirch 1985; Pogue 1978). Societal order was maintained by their traditional philosophies and by the conical clan principle of genealogical seniority (Kirch 1984). Universal Polynesian customs brought from their homeland included the observance of major gods *Kane*, *Ku*, and *Lono*; the *kapu* system of law and order; cities of refuge, various superstitions, and the concepts of *mana* and the *'aumakua* (Fornander 1969).

The Development Period, believed under Kirch's new concept to have occurred from A. D. 1100 to 1350, brought an evolution of traditional tools, including a variation of the adze (*ko'i*), and some new Hawaiian inventions such as the two-piece fishhook and the octopus-lure breadloaf sinker. That was followed by the Expansion Period (A. D. 1350 to 1650) which saw greater

Hokuloa Church Lease of State Lands Environmental Assessment

social stratification, intensive land modification, and population growth. This period was also the setting for the second major migration to Hawai‘i, this time from Tahiti. Also established during this period was the *ahupua‘a*, a land-use concept that incorporated all of the eco-zones from the mountains to the shore and beyond. The usually wedge-shaped *ahupua‘a* provided a diverse subsistence resource base (Hommon 1986) and added another component to what was already becoming a well-stratified society (Kirch 1985).

Ahupua‘a were ruled by *ali‘i ‘ai ahupua‘a* or lesser chiefs and managed by a *konohiki*. *Ali‘i* and *maka‘ainana*, or commoners, were not confined to the boundaries of *ahupua‘a* as resources were shared when a need was identified. *Ahupua‘a* were further divided into smaller sections such as *‘ili*, *mo‘o‘aina*, *pauku‘aina*, *kihapai*, *koele*, *hakuone* and *kuakua*. The chiefs of these land units have their allegiance to a territorial chief or *mo‘i* (literally translated as king) (Hommon 1986).

As population grew through the following centuries so did the reach of inland cultivation in the upland environmental zones and consequent political and social stresses. During the Proto-Historic Period (A. D. 1650-1795), wars reflective of a complex and competitive social environment are evidenced by *heiau* building. During this period, sometime during the reign of Kalaniopu‘u (A. D. 1736-1758), Kamehameha I was born in the *ahupua‘a* of Kokoiki, in the district of North Kohala near the Mo‘okini Heiau (Williams 1919). Kawaihae, which is located approximately four miles north of the project site, eventually became one of the royal centers of the island at which Kamehameha resided, and one where he could make use of trade with foreign ships to acquire guns and ammunition. It was also the site of Pu‘ukohola Heiau, dedicated to the war god Kuka‘ilimoku, which Kamehameha built on the advice of a soothsayer. Subjects came from across Kamehameha’s lands by the thousands to help him build the heiau. When in Kawaihae, Kamehameha stayed at Pelekane, located below Pu‘ukohola. After his death in 1819, the royal residence consisted of multiple houses occupied by his successor, Liholiho, also known as Kamehameha II. The missionary William Ellis observed 100 houses at Kawaihae in 1823, although it was unlikely that the area’s dry climate supported enough agriculture to sustain the court and its entourage as well as the commoners living there.

In leeward Kohala, as in other leeward areas where there were no regularly flowing streams to the coast, access to potable water (*wai*), was of great importance and played a role in determining the areas of settlement. Water was found in springs and caves (located from shore to the mountain lands), or procured from rain catchments and dewfall. Traditional and historic narratives abound with descriptions and names of water sources, and also record that the forests were more extensive and extended much further seaward than they do today. These forests not only attracted rains from the clouds and provided shelter for cultivated crops, but also in dry times drew the *kēhau* and *kēwai* (mists and dew) from the upper mountain slopes to the lowlands.

Hawai‘i’s history took a sharp turn on January 18, 1778 with the arrival of British Capt. James Cook in the islands. On a return trip to Hawai‘i ten months later, with a Maui turmoil still raging, Kamehameha visited Cook aboard his ship the *Resolution* off the east coast of Maui and helped Cook navigate his way to Hawai‘i Island. Cook exchanged gifts with Kalaniopu‘u at Kealakekua

Hokuloa Church Lease of State Lands Environmental Assessment

Bay the following January, and Cook left Hawai‘i in February. However, Cook’s ship then sustained damage to a mast in a severe storm off Kohala and returned to Kealahou, setting the stage for his death on the shores of the bay.

During the Proto-Historic Period there was a continuation of the trend toward intensification of agriculture, *ali*‘i-controlled aquaculture, settling of upland areas and development of traditional oral history. The *Ku* cult, *luakini heiau* and the *kapu* system were at their peaks, but the influence of western civilization was being felt in the introduction of trade for profit and a market-system economy. By 1810, the sandalwood trade established by Europeans and Americans twenty years earlier was flourishing. That contributed to the breakdown of the traditional subsistence system as farmers and fishermen were required to toil at logging, which resulted in food shortages and a decline in population. Ellis noted:

About eleven at night we reached Towaihae [Kawaihae], where we were kindly received by Mr. Young. . . . Before daylight on the 22nd, we were roused by vast multitudes of people passing through the district from Waimea with sandal-wood, which had been cut in the adjacent mountains for Karaimoku, by the people of Waimea, and which the people of Kohala, as far as the north point, had been ordered to bring down to his storehouse on the beach, for the purpose of its being shipped to Oahu. There were between two and three thousand men, carrying each from one to six pieces of sandal-wood, according to their size and weight. It was generally tied on their backs by bands of ti leaves, passed over the shoulders and under the arms, and fastened across their breasts (Ellis 2004).

The rampant sandalwood trade resulted in the first Hawaiian national debt, as promissory notes and levies granted by American traders were enforced by American warships. The assimilation of western ways continued with the short-lived whaling industry to the production of sugarcane, which was more lucrative but carried a heavy environmental price.

Following the death of Kamehameha I in 1819, the customary relaxing of *kapu* took place. But with the introduction of Christianity shortly thereafter, his successor, Kamehameha II, renounced the traditional religion and ordered that *heiau* structures either be destroyed or left to deteriorate. The family worship of *‘aumakua* images was allowed to continue.

The *Mahele* *‘Aina* took place in 1848, placing all land in Hawai‘i into three categories: Crown Lands, Government Lands and Konohiki Lands. Ownership rights were “subject to the rights of the native tenants,” or those individuals who lived on the land and worked it for their subsistence and for their chiefs. The *ahupua* ‘a of Lālāmilo was awarded to Lunalilo (Kamehameha V) and four *kuleana* claims were also recorded along the Puakō coast (Maly 1999).

Early land use in the coastal Puakō area focused primarily on marine resources with an emphasis on salt production. Prior to the *Māhele*, present-day Lālāmilo Ahupua‘a was referred to as Waikōloa Iki. Dunn (1992) elaborates on the place names of the area:

Hokuloa Church Lease of State Lands Environmental Assessment

Early references refer to the area of Lālāmilo as “Puakō”; the name of Puakō today refers to a small village on the coast of Lālāmilo. Land Index records of the mid-1800s reveal that Lālāmilo was the name of an ‘ili in Puakō, but a 1928 Territory of Hawaii map and later references show the ahupua‘a is named Lālāmilo. Whether the ahupua‘a of Puakō got absorbed into other ahupua‘a and the ‘ili of Lālāmilo became an ahupua‘a itself, or the names just got switched around is unclear (Dunn 1992).

The Hōkūloa Church (Hoku Loa is translated as “Evening Star”) is the oldest functioning lava rock structure in the District of South Kohala. The land for the Hōkūloa Church and accompanying school was given by Kamehameha III to the missionary Rev. Lorenzo Lyons, who was born in 1807 in Colerain, Mass. (Hokuloa United Church of Christ 2008). Sent from Boston by the American Commissioners for Foreign Missions in the Fifth Company, Lyons arrived in Honolulu in 1832 and took up his work at the Waimea station that same year. He came to be known by his parishioners as “*Ka Makua Laiana*” or “Poet of the Mountains” because he lived on the slopes of Mauna Kea and learned the language of his adopted land. Lyons built 14 churches in the territory of his mission station, including at Waipi‘o Valley, Honoka‘a and Kawaihae, although as of 2008 only three besides Hōkūloa were known to survive. Construction on the “little white church of Puakō” began in 1858 and was completed two years later, with its dedication occurring on March 21, 1860. Like the church at Kawaihae, Hōkūloa Church was built from lava rock, with coral used for mortar. Financing for the church came from contributions and fund-raising festivals, with some of the funding earned by men working on construction of the school and women weaving *lauhala* mats (Ibid).

It was a difficult time for residents of the area. In 1853, there was a major outbreak of smallpox that spread from Waimea to Kawaihae and down towards Puakō. Famine and food shortages in the area also contributed to a decline in the population. Also, more promising economic opportunities on O‘ahu and in other larger towns across the islands led many of the native people in the region who did survive the outbreaks to migrate out of the region (South Kohala CDP 2008). The 1859 eruption of Mauna Loa also sent a lava flow all the way to the sea near Kiholo Bay approximately seven miles to the south, and while it did not cross South Kohala it had a disastrous effect on the local supply of fish upon which villagers relied (Hokuloa United Church of Christ 2008). Lyons reported on the church’s progress in his 1859 Annual Report:

Puakō Church. I reported this church last year as on the way - the stone walls up - laid in mortar - and windows procured. This is the poorest parish in my field, rendered still poorer of late by the frequent rains that have prevented the people from making salt - one of their chief dependencies - the wind - rough weather, and the heat of the volcanic steam that entered this place have killed or frightened away all their fish and the second source of wealth. There remain the fruit of a few cocoa nut trees, and the lauhala from their leaf of which the women busy themselves in making mats. The men can sometimes find a job of work that will bring them in something, that is, if they can manage to find food, all of which comes from a distance. One such job they have found. They have built a stone school house plastered inside and out and surrounded it with a stone wall, and turned all the avails 129\$ into their church. The avails of the women’s

Hokuloa Church Lease of State Lands Environmental Assessment

mats are disposed of in the same way. With the funds obtained and any others I may be so fortunate as to secure by begging or otherwise, I am authorized by the trustees to purchase materials for the roof - floor and etc. to take along with me. We have resolved to have the roof and belfry on and floor laid by the next communion season - which is the last week of August (Ibid).

In his 1862 Annual Report, Lyons noted that the population of Puakō was declining because its people were heavily burdened with taxes and because the area was a difficult one in which to make a living (Historic Register Application 2008). In his report the following year Lyons presented some observations about the church and community:

This parish is from 13 to 18 miles SW of Waimea and consists of several small villages, one of which is Puakō. These villages are mostly beautified by tall waving coconut groves - the lauhala, the loulu or low palm tree - and Kou tree - and some other shrubbery - There are also fish ponds where the delicious mullet etc sport and valuable salt rounds, that furnish employment for both sexes.

The church number about 70 members present and in good standing - which embraces nearly all the adult population and some of the children. ... When the pastor visits the parish to administer the Lord's supper etc the church members come out pretty generally and the house of worship is pretty well filled. Contributions are received on such occasion for pastoral support and missionary purposes - and amount to about 50 dollars for the past year. The people are very heavily taxed by different landlords and are very poor. ...

The stone church, with its whitened walls, and reddened roof and humble spire give the place an air of civilization and religiousness, and the school house in close proximity with its similar walls though thatched roof, makes something of a show, and indicated the existence of a school.

The Rev. Lyons died in 1886 at the age of 79. The spread of diseases, the effects of storms and severe weather, the influence and even competition with the Roman Catholics in Kamuela had contributed to cycles of increase and decline in his mission district (Ibid).

The church underwent repairs in 1884 and was rededicated on Feb. 19, 1885 by the Rev. Jonathan Stupplebeen. Additional repairs were required in 1903. Services were discontinued after the closing of the Puakō sugar plantation in 1914 resulted in many families leaving the area (Ibid).

Puakō literally translates as "sugarcane blossom" (Pukui et al. 1974). Sugarcane (*Saccharum officinarum*) was a Polynesian introduction that served a variety of uses. The *kō kea* or white cane was the most common, usually planted near Hawaiian homes for medicinal purposes, and to counteract bad tastes (Handy and Handy 1972:185). Sugarcane was a snack, condiment, famine food; fed to nursing babies, and helped to strengthen children's teeth by chewing on it (Handy

Hokuloa Church Lease of State Lands Environmental Assessment

and Handy 1972:187). It was used to thatch houses when *pili* grass (*Heteropogon contortus*) or *lauhala* (*Pandanus tectorius*) were not abundant (Malo 1903). Sugarcane was also used in relation to taro and sweet potato. Handy and Handy (1972:186) explain:

In wet-taro farming, cane was planted along the embankments separating the flooded terraces and flats. In dry-taro and sweet-potato fields on the sloping *kula* or in the lower forest zone, cane was planted as hedges along the lines of stone and rubbish thrown up between the fields. Thus it helped the planter to utilize to the maximum his soil and water, and acted as a windbreak against the gusty breezes which blow in most valley bottoms, along the coasts, and on the uplands where taro is grown.

Pukui (1983), who notes that Hawaiian proverbs often carry multiple meanings, tells of two proverbs about the relationship between Kohala and sugar cane:

He pa 'a kō kea no Kohala, e koleaika waha ke 'ai.

A resistant white sugar cane of Kohala that injures the mouth when eaten.

Pukui's interpretation was thus:

A person that one does not tamper with. This was the retort of Pupukea, a Hawai'i chief, when the Maui chief Makakuikalani made fun of his small stature. It was later used in praise of the warriors of Kohala, who were known for valor (1983).

The second proverb:

I 'ike 'ia no o Kohala i ka pae kō, a o ka pae kō ia kole ai ka waha.

One can recognize Kohala by her rows of sugar cane which can make the mouth raw when chewed.

Pukui's explanation:

When one wanted to fight a Kohala warrior, he would have to be a very good warrior to succeed. Kohala men were vigorous, brave, and strong (1983).

Sugarcane was grown on all islands, and when Cook arrived he wrote of seeing sugarcane plantations. The Chinese on Lāna'i are credited with producing sugar first, as early as 1802. However, it was not until 1835 that sugar became established commercially, replacing the waning sandalwood industry (Oliver 1961; Kuykendall and Day 1976).

Commercial sugar production in the project area began with a chance discovery in 1895 by Wilmot Vredenberg of the plant growing wild in Puakō. The British national immediately showed his discovery to Robert Hind and his son, John, who had founded the Hāwī Mill and Plantation Company in North Kohala 15 years earlier. The Hinds soon thereafter founded the Puakō Sugar Plantation where the present *kiawe* forest is located. The plantation, which

Hokuloa Church Lease of State Lands Environmental Assessment

consisted of over 1,500 acres of land acquired from Parker Ranch and leased acreage from the Territory of Hawai'i (Maly 1999), included a sugar mill, wharf and a one-mile-long railroad track connecting the two. An eight-mile-long wooden flume was also constructed to channel water to the plantation from Waimea Stream. However, the plantation was beset from its inception with difficult growing conditions including periodic floods, strong coastal winds that blew down crops and scattered salt into the soils, and, eventually, prolonged drought. The plantation closed in 1914 (Puakō Historical Society 2000). Despite the setback with his sugar plantation, Hind continued to pursue economic opportunities in Puakō which included a *kiawe* feed lot and cattle shipping operation, honey-making and the manufacture of charcoal.

After the sugar mill closed, only seven families remained in Puakō, clustered in the area from the sugar mill to just south of the project site. As discussed above, services were no longer being held at the church which had fallen into disrepair. By the 1920s, the school house had also burned and with no money to rebuild, the children remaining in Puakō went elsewhere for education, and from 1914 through 1965, the church saw only intermittent use (Puakō Historical Society 2000).

In 1937 Annabelle Nako'olaniohakau Low-Ruddle and her husband Albert traded some of their Hilo lands for roughly 7.5 acres of government land in Puakō in area known as Paniau (Maly 1999). The land just south of Puakō was acquired by Francis Hyde I'i Brown in the early 1930s. Brown planted several hundred coconut palms and restored some of the area's fishponds. He eventually sold the property to the Mauna Lani Resort in 1972.

The U.S. military used coastal South Kohala, as well as upland lands of Waikoloa, for World War II training exercises (Jensen 1994). Roads were bulldozed along the coast of South Kohala in the early 1940s, including to Puakō. The Ruddle family purchased an army jeep after the war and they were the first family to travel the roads by vehicle (Puakō Historical Society 2000). After the war, interest in land in Puakō increased, prompting the Territory to create a subdivision. While a number of house lots existed in Puakō since at least early in the 20th century, in 1950 a territorial survey was conducted that established the path of Puakō Beach Drive and divided the coastal lands of Lālāmilo into 163 parcels. The road to Puakō was paved by the County in 1964, and in 1975 the State constructed the Queen Ka'ahumanu Highway linking Kawaihae Harbor to Keāhole Airport, meaning those traveling from Kona to the South Kohala coast no longer had to drive through Waimea.

In the 1950s and 1960s, as tourism began to develop along the South Kohala coast and house lots in Puakō and Waialea were being sold, an effort was begun to repair the church, mainly by the Hōkūloa Historical Society, a short-lived, tri-denominational group which planned to hold chapel services. The repairs were estimated to cost about \$20,000 and were based on a report from the Historic American Building Survey of 1966 and plans developed by architects Kenneth Brown and Ernest H. Hara. In 1967, the original wooden floor, which had been repaired on several occasions but sustained substantial damage in the 1960 tsunami, was replaced by concrete. That same year a small building measuring 144 square feet for use as a restroom and for storage was built on the church grounds, along with the installation of a cesspool. A gazebo measuring 18

Hokuloa Church Lease of State Lands Environmental Assessment

feet by 28 feet has since been built adjacent to it. The restoration efforts came to a halt in 1967 when funds were depleted, and interest in having rotating clergy waned (Hokuloa United Church of Christ 2008).

The next major renovations took place in 1989, after the Hawaii Conference Foundation and the Board of Homeland Ministries of the United Church of Christ combined to fund a full-time pastor for Hōkūloa Church. As a result, the Rev. John Hoover was brought in to fill the position of reorganizing the congregation and the leading of worship. The church's roof was replaced, electricity installed and other repairs made at a cost of approximately \$30,000. The church was again rededicated on April 8, 1990. In 2007, the restroom's cesspool was replaced with a septic system at a cost of \$40,000. That project required additional work including landscaping changes, removal of trees and replacement of the irrigation system, which cost an additional \$80,000 (Ibid).

The Hawaii Conference Foundation applied for historic status for the Church. The Hawai'i Historic Places Review Board reviewed the application on Dec. 13, 2008 and placed the church on the Hawai'i Register of Historic Places and decided to nominate the Church to be placed on the National Register of Historic Places.

Existing Archaeological Resources

A large number of previous archaeological studies have been performed in the Puakō area and the surrounding ahupua'a from Kawaihae south to Anaeho'omalū Bay. Sites identified in coastal areas of Puakō include caves, petroglyphs, cairns, trails, rock and cave shelters, refuge caves, burials, a *holua* slide, and a number of features associated with habitation sites. Also, trail networks, both along the coastline and *mauka/makai*, have been identified in the project area.

The Puakō Petroglyph Archaeological District, listed on both the State and National Historic Registers (SIHP Site No. 4713), is located on parcel TMK 6-9-01:15, northeast of the project corridor. The site was listed on the State of Hawai'i Register of Historic Places in 1982, and in April of 1983 it was listed on the National Register. The site area was formally recorded by the Bishop Museum in 1964 (Kennedy 1980) and was noted as "being one of the largest fields of its kind in the Hawaiian Islands" (Dunn and Rosendahl 1992, Appendix B:B-4); the petroglyph area consists of three major groupings of more than 3,000 incised figures and represents some of the oldest images in the Hawaiian Islands.

Inspection by archaeologist Rechtman Consulting found no archaeological sites on the properties proposed to be leased by the Church.

Impacts and Mitigation for Archaeological Resources

As discussed below in the context of cultural resources, the State Historic Preservation Division (SHPD) is familiar with the area from having assisted in the nomination of Hokuloa Church to the State and National Registers of Historic Properties. The properties were inspected by the

Hokuloa Church Lease of State Lands Environmental Assessment

SHPD in 2010, confirming the informal findings of the archaeologist that no historic sites were present outside the Church itself. In a letter of April 22, 2010 (see Appendix 1a), the Administrator of SHPD stated that she had determined that the lease and subsequent activities would not affect historic properties.

In the unlikely event that any previously unidentified sites, or remains such as artifacts, shell, bone or charcoal deposits, human burials, rock or coral alignments, pavings, or walls are encountered during landscaping activities, work will stop immediately and SHPD will be consulted to determine the appropriate mitigation. Care will be taken during ground preparation to ensure that, in the unlikely event that human burials are present, they are recognized and dealt with appropriately.

Existing Cultural Resources

Hokuloa Church and the properties surrounding them have important cultural values as they relate to the historical development of the community of Puakō, as evidenced by many of the letters from community and church members reproduced in Appendix 1a, quotes from which are provided below:

In view of the fact that this historic church has cultural ties back to Kamehameha and Reverend Lorenzo Lyons, we decided it would be most appropriate to have our Royal Court participate in Hokuloa's worship service during our yearly events... The Royal Court is welcomed graciously by Reverend John Hoover and the church members ... Our committee works tirelessly to preserve and perpetuate our native cultural resources, e.g., language, customs, practices, land and treasures, such as Hokuloa – Moani Akana, Project Manager, Hawai'i Island Festival.

The value of this historic church to the Puako community and South Kohala is expressed in many ways. Not only is this an active worship and community place. It is a cultural treasure and a beautiful place to visit.....As a member of the Ahahui Kaahumanu, one of the four Hawaiian royal societies, we choose to worship at Hokuloa annually as we appreciate the fact that it is one of the 14 churches built by Lorenzo Lyons. It has protected the integrity of the church by retaining and maintaining its original architecture, and continue in its ministry as was its original intent, as well as retained the Hawaiian culture in its hymns, its language, and in observing Hawaiian cultural events. – Patricia P.K. Lewi

The Reverend Lorenzo Lyons was a special person in the History of Christianity in Hawaii. He perpetuated the Hawaiian Culture by learning the Hawaiian Language and building fourteen churches of which Hokuloa is one. He came to build, not to take away, to be of service to the people and leave us with a legacy of Christian aloha and love....perpetuated to all who visit and attend services at Hokuloa Church. – Leonetta Mills

Hokuloa Church Lease of State Lands Environmental Assessment

The church has had a positive impact in the Puako community. I believe the Hokuloa Church has respect for the land and will strive to make the combined property an area of pride for the community. It is part of the church's kuleana to protect the land and ocean, to allow for the privacy for neighbors, and to maintain the natural beauty of the area – Keala Stevens.

It troubles me that over the years, the property has gradually gotten smaller...Places of historical importance should be preserved, rather than brushed aside as just “old places”. It is proper that an effort is being made to now increase the area for the Church, as that will help the Church to provide even greater benefits and services ...and...make it more of what the founder, Lorenzo Lyons, originally had in mind – Albert A. Nakaji.

Hokuloa Church...is an important historic reminder of Hawaii's rich past. The present-day church's continued service to this Hawaiian fishing village is very admirable....My purpose of commenting on this EA is that the headlong economic development of our resort shorelines needs to occasionally be brought to mind of the grand Hawaiian past. Sacred spaces and traditional practices and mores must be preserved so as not to lose the unique flavor of our very special place on the surface of this world – Jack Keppeler.

My family and I are members of the Imiola Congregational Church in Waimea. My grandparents began attending Imiola Church in the 1930s...I am kama'āina to the Waimea (Kamuela) and Puako areas. My grandfather's family, Kawai and Spencer, are long-time kama'āina of Waimea and Pu'ukapu...For at least the past 20 years, Imiola Church has been involved with Hokuloa as a big sister church....Each year, our church choir at Imiola Church shares Thanksgiving eve with our 'ohana down at Hokuloa...Over the past two decades, Hokuloa has grown and developed in conservative, responsible and mindful ways. The land area is limited because the church property sits right off Puakō Beach Drive with the ocean at its back...the church membership has worked very hard to improve the building, strengthened its walls and ramparts since the earthquake of 2007, created and improved walkways, plantings...In point of fact, the membership of Hokuloa has taken up the duty of the stewardship of this precious historic property...Hokuloa's long record of land stewardship makes a strong case for the State to finally create a protection buffer to safeguard the church land from falling prey to further encroachment and protect the historic building from being overcome by the grasping tendrils of development – Edith Kawai.

Impacts and Mitigation for Cultural Resources

As part of a plan to ensure preservation of the physical elements of the Church, the Hawaii Conference Foundation has applied for historic register status for the Church. The Hawai'i Historic Places Review Board reviewed the application on Dec. 13, 2008. The Board voted unanimously to place the Hokuloa Church on the State Register of Historic Places and to nominate the Church for inclusion on the National Register of Historic Places. The Board made several suggestions for changes or additions to the application before forwarding it for

Hokuloa Church Lease of State Lands Environmental Assessment

consideration for the National Register. Attorney Margaret Wille, representing Joseph and Helen Pickering, argued against the Board's decision and requested a contested case because of dissatisfaction with the state of the current access and utility easements for the Pickering property. The request has been put on hold pending DLNR Land Division's attempts to mediate easements that could address the concerns. As of this writing in August 2011, the easement situation has not yet been resolved.

It is clear that many residents consider preservation of Hokuloa Church, along with the perpetuation of its tradition of community service and cultural support, as critical to preserving the cultural values of Puakō and Kohala. As evidenced in the many letters in Appendix 1a, this sentiment is not restricted to church members or residents of Puakō, but unites residents of all islands, many with genealogical ties to the Native Hawaiians linked to the Church in the 19th century, as well as visitors from around the world. Although the Historic Register status can be thought of as primarily relating to the physical elements of Hokuloa Church, the community of support for the Church regards the Church buildings, the landscape that is the context for the church, and the community functions that these make possible as an integrated whole that supports the cultural-historical values of the community.

Several residents, including some neighbors, expressed concern over loss of the cultural value of the *kiawe* forest. As discussed elsewhere in this EA, the *kiawe* trees on these properties, which will be cleared/thinned on Parcels 7 and 8, represent less than 0.1% of the total area of *kiawe* trees in Puakō. Although some residents made the claim that this area held the only shoreline *kiawe*, this tree is abundant in the area in an around the Puakō boat ramp.

One letter in response to early consultation (see Appendix 1a) indicated that the ironwood trees found on the property might have special cultural value:

Removal of trees, especially the tall ironwood trees on the site, will destroy historic navigational landmarks. The historic tall navigational Ironwood trees have been guiding paddlers and boaters safely into harbor for a very long time. Their massive height is the marker those on the water look for – Sara Fuller.

As part of the research for this EA, the author attempted to corroborate this assertion but was unable to find water users who agreed that these trees on Parcels 7 or 8 were essential navigation landmarks. The ironwood trees on the property are relatively recent landmarks, and at least one paddler thought that the trees closer to the Puakō Boat Ramp are more useful. It is hoped that boaters and paddlers who review the Draft EA will comment on this idea. In any case, some of the ironwood trees will remain, leaving sufficient tree landmarks.

Hokuloa Church Lease of State Lands Environmental Assessment

No comments on the Draft EA from these or other parties indicating such practices or properties were received.

3.2.4 Agricultural Resources

Environmental Setting, Impacts and Mitigation Measures

Although Puakō was farmed for sugar cane in the early 20th century and the area subsequently grazed in cattle for many years, little agriculture currently occurs in the area. The most notable operation is honey production. In 2004, Volcano Island Honey received the necessary State permit and license to conduct a commercial apiary operation consisting of 125 to 300 portable stacked beehive boxes. The hives were to occupy an area of 3 to 5 acres on TMK 6-9-001:015 (across Puakō Beach Drive from the properties sought by the Church), but the bees were expected to roam throughout the entire Puakō *kiawe* forest. In the Environmental Assessment for the project (necessary because it used State land in the Conservation District), the applicant was careful to assert that “the beekeeping operation will not foreclose and may even invite compatible multi-use of this peaceful forest” (Volcano Island Honey 2004:10), and he explicitly mentioned support for landscape expansion plans for Hokuloa Church. Although Volcano Island Honey did implement the beekeeping operation, the severe fire of 2008, combined with floods and the bee diseases that have severely affected Big Island hives, have wiped out most of the hives and the operation as proposed is now extremely limited. Bee diseases are rapidly spreading and threaten to wipe out most of the bees in Puakō along with bees around the island.

Clearing/thinning of what represents less than 0.1% of the *kiawe* trees in Puakō should have no effect on current or future beekeeping in Puakō. If active beehives are discovered in any trees required for clearing or thinning, or if beehives are found to pose a threat to uses on the property, the Church will consult with a Big Island beekeeper to determine what should be done.

3.3 Roads, Public Facilities and Utilities

Environmental Setting

Puakō Beach Drive, a County-owned and -maintained two-lane paved secondary road running roughly parallel to the shoreline, provides access to Puakō residences from the Queen Ka‘ahumanu Highway. The site is serviced by overhead power and telephone lines from HELCO and Verizon Hawaii. Water service is via the County of Hawai‘i Department of Water Supply. Wastewater disposal is through individual septic or cesspool systems. Puakō has a public boat ramp located off Puakō Beach Drive near the entrance to the community. A solid waste transfer station is located along Puakō Beach Drive between the town and the Queen Ka‘ahumanu Highway. No other public facilities are present.

Hokuloa Church Lease of State Lands Environmental Assessment

Impacts and Mitigation Measures

In a letter in response to early consultation (see Appendix 1a), attorney Gary Kerwood stated:

The County of Hawaii Public Works Department commented on the Church's proposal and noted that County roads are required to be a minimum of 50 feet wide. To the extent that Parcel 10 is subdivided and a portion conveyed to the County, the Church should be required to make any repairs or improvements needed to restore the Whitakers' driveway and easement area to a condition substantially similar to the present.

At this point, the Church assumes that the additional land required by the Department of Public Works will be obtained from land on the *mauka* side of Puakō Beach Drive, which would not impact the driveways of the Church or neighboring properties.

No adverse impact to public facilities or utilities will occur. The Church is already served by utilities and that use is not expected to increase. The proposed landscaping will be minimal and will involve native, Polynesian and historic period plants adapted to the dry, warm climate of the area which will not require excessive watering or other maintenance.

As discussed in Section 2, the suggestion provided in response to early consultation that the site be considered for use as a wastewater treatment plant would appear to be inappropriate, based on the shoreline location and scenic and historic context. Aside from this suggestion from one commenter, the Church has not heard from the County of Hawai'i, the State of Hawai'i, or the Puakō Community Association that there is any active consideration of this idea. The Church recognizes that Puakō may require some sort of municipal wastewater treatment and will be ready to comply with all requirements related to any such future system. For the present, wastewater will be treated with an individual wastewater system meeting all the requirements of the State Department of Health. Some events will require the installation of temporary portable toilets.

3.4 Secondary and Cumulative Impacts

The small scale of the proposed action will not produce many secondary impacts, such as population changes or effects on public facilities. Although the extension of the Ala Kahakai National Historic Trail across the property will have at least some effect on neighbors in terms of privacy, this trail is likely to be constructed with or without the proposed action. Furthermore, shoreline access is a right, and the neighbors, like all citizens of Hawai'i, will also benefit from the recreational amenity of trail.

Cumulative impacts result when implementation of several projects that individually have limited impacts combine to produce more severe impacts or conflicts in mitigation measures. The action involves expanding the area of State land leased for the Church and the clearing of existing exotic vegetation and landscaping with plants of native and Polynesian origin. Similar

Hokuloa Church Lease of State Lands Environmental Assessment

landscaping is present at some neighboring residences. The adverse effects of clearing and landscaping are very minor and represent only temporary disturbance to air quality, noise, and visual quality. Clearing/thinning of what represents less than 0.1% of the *kiawe* trees in Puakō will not have any substantial effect on the status of the Puakō *kiawe* forest. Other than the precautions for preventing any effects to water quality during construction listed above in Section 3.1.3, no special mitigation measures should be required to counteract any small adverse cumulative effect that might occur. It is particularly important to note that the action is expected to generate negligible scenic impact, no impact to public use and enjoyment of trails and shoreline areas, and no effect to historic or cultural properties other than a beneficial impact of further protection of the historic church and preservation of open space. There would thus be no risk of cumulative impact to these resources.

3.5 Required Permits and Approvals

State of Hawai‘i:

Direct Lease of State Lands

County of Hawai‘i:

Special Management Area Permit or Exemption

Shoreline Setback Variance (potential)

Subdivision Approval

Conservation District Use Permit (potential)

3.6 Consistency With Government Plans and Policies

3.6.1 County of Hawai‘i General Plan

The *General Plan* for the County of Hawai‘i is the document expressing the broad goals and policies for the long-range development of the Island of Hawai‘i. The plan was adopted by ordinance in 2005. The *General Plan* is organized into thirteen elements, with policies, objectives, standards, and principles for each. There are also discussions of the specific applicability of each element to the nine judicial districts comprising the County of Hawai‘i. Below are pertinent sections followed by a discussion of conformance.

ENVIRONMENTAL QUALITY GOALS

- (a) Define the most desirable use of land within the County that achieves an ecological balance providing residents and visitors the quality of life and an environment in which the natural resources of the island are viable and sustainable.
- (b) Maintain and, if feasible, improve the existing environmental quality of the island.
- (c) Control pollution.

Hokuloa Church Lease of State Lands Environmental Assessment

ENVIRONMENTAL QUALITY POLICIES

- (a) Take positive action to further maintain the quality of the environment.

ENVIRONMENTAL QUALITY STANDARDS

- (a) Pollution shall be prevented, abated, and controlled at levels that will protect and preserve the public health and well-being, through the enforcement of appropriate Federal, State and County standards.
- (b) Incorporate environmental quality controls either as standards in appropriate ordinances or as conditions of approval.
- (c) Federal and State environmental regulations shall be adhered to.

Discussion: The proposed action would not have a substantial adverse effect on the environment and would not diminish the valuable natural resources of the region. The consolidation of State properties and associated landscaping would be compatible with the existing single-family homes and recreational uses in the area.

HISTORIC SITES GOALS

- (a) Protect, restore, and enhance the sites, buildings, and objects of significant historical and cultural importance to Hawaii.
- (b) Appropriate access to significant historic sites, buildings, and objects of public interest should be made available.

HISTORIC SITES POLICIES

- (a) Agencies and organizations, either public or private, pursuing knowledge about historic sites should keep the public apprised of projects.
- (b) Amend appropriate ordinances to incorporate the stewardship and protection of historic sites, buildings and objects.
- (c) Require both public and private developers of land to provide historical and archaeological surveys and cultural assessments, where appropriate, prior to the clearing or development of land when there are indications that the land under consideration has historical significance.
- (d) Public access to significant historic sites and objects shall be acquired, where appropriate.
- (e) Embark on a program of restoring significant historic sites on County lands. Assure the protection and restoration of sites on other public lands through a joint effort with the State.

Discussion: No archaeological or cultural sites appear to be present on the property, except for the existing Hokuloa Church, the historical nature of which would be preserved and enhanced.

Hokuloa Church Lease of State Lands Environmental Assessment

FLOOD CONTROL AND DRAINAGE GOALS

- (a) Protect human life.
- (b) Prevent damage to man-made improvements.
- (c) Control pollution.
- (d) Prevent damage from inundation.
- (e) Reduce surface water and sediment runoff.
- (f) Maximize soil and water conservation.

FLOOD CONTROL AND DRAINAGE POLICIES

- (a) Enact restrictive land use and building structure regulations in areas vulnerable to severe damage due to the impact of wave action. Only uses that cannot be located elsewhere due to public necessity and character, such as maritime activities and the necessary public facilities and utilities, shall be allowed in these areas.
- (g) Development-generated runoff shall be disposed of in a manner acceptable to the Department of Public Works and in compliance with all State and Federal laws.

FLOOD CONTROL AND DRAINAGE STANDARDS

- (a) “Storm Drainage Standards,” County of Hawaii, October, 1970, and as revised.
- (b) Applicable standards and regulations of Chapter 27, “Flood Control,” of the Hawaii County Code.
- (c) Applicable standards and regulations of the Federal Emergency Management Agency (FEMA).
- (d) Applicable standards and regulations of Chapter 10, “Erosion and Sedimentation Control,” of the Hawaii County Code.
- (e) Applicable standards and regulations of the Natural Resources Conservation Service and the Soil and Water Conservation Districts.

Discussion: The property is within the VE and AE zones, or areas within the 100-year Floodplain as determined by detailed methods in the community flood insurance study, according to the Flood Insurance Rate Maps (FIRM). Any improvements are subject to review by the Hawai‘i County Department of Public Works to ensure that all relevant standards of Chapter 27 and Chapter 10 are addressed.

NATURAL BEAUTY GOALS

- (a) Protect, preserve and enhance the quality of areas endowed with natural beauty, including the quality of coastal scenic resources.
- (b) Protect scenic vistas and view planes from becoming obstructed.
- (c) Maximize opportunities for present and future generations to appreciate and enjoy natural and scenic beauty.

Hokuloa Church Lease of State Lands Environmental Assessment

NATURAL BEAUTY POLICIES

- (a) Increase public pedestrian access opportunities to scenic places and vistas.
- (b) Develop and establish view plane regulations to preserve and enhance views of scenic or prominent landscapes from specific locations, and coastal aesthetic values.

Discussion: The improvements are minor and will benefit public access and enjoyment, enhance the natural beauty of the area, and will not cause adverse scenic impacts.

NATURAL RESOURCES AND SHORELINES GOALS

- (a) Protect and conserve the natural resources from undue exploitation, encroachment and damage.
- (b) Provide opportunities for recreational, economic, and educational needs without despoiling or endangering natural resources.
- (c) Protect and promote the prudent use of Hawaii's unique, fragile, and significant environmental and natural resources.
- (d) Protect rare or endangered species and habitats native to Hawaii.
- (e) Protect and effectively manage Hawaii's open space, watersheds, shoreline, and natural areas.
- (f) Ensure that alterations to existing land forms, vegetation, and construction of structures cause minimum adverse effect to water resources, and scenic and recreational amenities and minimum danger of floods, landslides, erosion, siltation, or failure in the event of an earthquake.

NATURAL RESOURCES AND SHORELINES POLICIES

- (a) Require users of natural resources to conduct their activities in a manner that avoids or minimizes adverse effects on the environment.
- (c) Maintain the shoreline for recreational, cultural, educational, and/or scientific uses in a manner that is protective of resources and is of the maximum benefit to the general public.
- (d) Protect the shoreline from the encroachment of man-made improvements and structures.
- (h) Encourage public and private agencies to manage the natural resources in a manner that avoids or minimizes adverse effects on the environment and depletion of energy and natural resources to the fullest extent.
- (p) Encourage the use of native plants for screening and landscaping.
- (r) Ensure public access is provided to the shoreline, public trails and hunting areas, including free public parking where appropriate.
- (u) Ensure that activities authorized or funded by the County do not damage important natural resources.

Discussion: The action includes only minor additional structures located away from the shoreline and therefore avoids impact on shoreline resources. The proposed landscaping improvements are similar to those at neighboring residences and properties and will consist mainly of native and Polynesian-introduction plants.

Hokuloa Church Lease of State Lands Environmental Assessment

LAND USE GOALS

(a) Designate and allocate land uses in appropriate proportions and mix and in keeping with the social, cultural, and physical environments of the County.

LAND USE POLICIES

(c) Allocate appropriate requested zoning in accordance with the existing or projected needs of neighborhood, community, region and County.

LAND USE, OPEN SPACE GOALS

(a) Provide and protect open space for the social, environmental, and economic well-being of the County of Hawai‘i and its residents.

(b) Protect designated natural areas.

LAND USE, OPEN SPACE POLICIES

(a) Open space [in the County of Hawai‘i] shall reflect and be in keeping with the goals, policies, and standards set forth in the other elements of the General Plan.

Discussion: The proposed leasing of State land and the proposed clearing and subsequent landscaping activities will contribute to open space in the area. Lateral coastal access will be preserved and enhanced.

3.6.2 Special Management Area

The proposed land use would appear to comply with provisions and guidelines contained in Chapter 205A, Hawai‘i Revised Statutes (HRS), entitled *Coastal Zone Management*. The proposed use would be consistent with Chapter 205A because it would improve or not adversely affect public access to recreational areas, historic resources, scenic and open space resources, coastal ecosystems, economic uses, or coastal hazards.

The proposed action is consistent with the character of the surrounding area, which contains numerous residences with landscaping similar to that proposed and which is not likely to result in any substantial adverse impact on the surrounding environment. The property is adjacent to the shoreline but the action will not restrict any shoreline uses such as hiking, fishing or water sports. Furthermore, the viewplanes to and along the shoreline towards the property will not be adversely impacted, and to the contrary will likely be improved through the clearing of excess non-native vegetation and landscaping with native, Polynesian and historic period plants. Other than the Church, for which status on the Historic Register is being sought, no historic sites appear to be present on the lot. It is expected that the action will not result in any impact on the biological or economic aspects of the coastal ecosystem. The project would clear/thin *kiawe* gradually and would not produce excess erosion and sedimentation that would damage the water

Hokuloa Church Lease of State Lands Environmental Assessment

quality or ecosystems in Puakō's marine environment. The properties contain few native plants and none that are not extremely common, and the proposal includes revegetation with native plants. Flood Insurance Rate Maps (FIRM) prepared delineate the areas of the property in which construction would occur as Zones VE and AE, and the construction will comply with Chapter 27 of the Hawai'i County Code, which regulates development within the floodplain. In terms of beach protection, only landscaping is proposed for areas inside the shoreline setback and that would not affect any beaches nor adversely affect public use and recreation of the shoreline in this area.

3.6.3 Shoreline Setback Rules

Rule 11 (Shoreline Setback) of the Hawai'i County Planning Department Rules Of Practice And Procedure governs uses with the Shoreline Setback Area. Pursuant to Rule 11-6(b), all structures and activities that do not qualify under section 11-7(a) through (c) are prohibited in the shoreline setback area, unless the applicant obtains a Shoreline Setback Variance or the Planning Director determines that it is a "minor activity" "that does not adversely affect the shoreline" in the context of the rules and is thus exempt. No structures are proposed for the shoreline setback area, and it is anticipated that the Planning Director will issue a ruling that the proposed landscaping will be considered a minor activity not requiring a variance.

3.6.4 South Kohala Community Development Plan

The South Kohala Community Development Plan (CDP) encompasses the judicial district of South Kohala, and was developed under the framework of the February 2005 County of Hawai'i General Plan. Community Development Plans are intended to translate broad General Plan Goals, Policies, and Standards into implementation actions as they apply to specific geographical regions around the County. CDPs are also intended to serve as a forum for community input into land-use, delivery of government services and any other matters relating to the planning area. The General Plan now requires that a Community Development Plan shall be adopted by the County Council as an "ordinance," giving the CDP the force of law. This is in contrast to plans created over past years, adopted by "resolution" that served only as guidelines or reference documents to decision-makers. In November 2008, the South Kohala CDP was adopted by the County Council. The version referenced in this Environmental Assessment is at: <http://www.hcrc.info/community-planning/communitydevelopment-plans/south-kohala/skcdpfinaldraft11.18.08.pdf>.

The Plan has many elements and wide-ranging implications, but there are several major strategies that embody the guiding principles related to land use, housing, public facilities, infrastructure and services, and transportation.

The Hokuloa Church is listed in the CDP as being among the historic and cultural resources in Puakō. The listing also notes that in addition to hosting weekly services the Church serves as a meeting place for the community.

Hokuloa Church Lease of State Lands Environmental Assessment

The action is in keeping with Policy 1, Strategy 1.1, of the CDP's Puakō Community Plan, which specifically lists Hokuloa Church as a component of the historical integrity of Puakō that is to be preserved. The action, which will maintain the leased State Parcels as open space, is also in keeping with Strategy 1.2 which calls for maintaining the low-density residential character of Puakō. It is also consistent with Strategy 1.4, which calls for mitigating the impacts of surrounding land uses on historical and cultural resources by preventing development on adjacent land and by use of those Parcels to expand a historically appropriate setting for the Church and provide more space for the Church to conduct its activities. That strategy notes that there are resort-zoned Parcels not far from the Church which have at times "interfered and conflicted with the use of the Church." The action will help provide a buffer that will serve to rationalize its relationship with other neighboring properties.

The action is generally consistent with other aspects of the South Kohala CDP including Puakō Policy 1 of Section 7.2, Puakō Tomorrow: Puakō Conceptual Plan & Policies, which calls for the management of the effects of growth and development. The policy states that "the County government shall work closely with the Puakō Community to manage the effects of growth and development in a responsible manner." Puakō Policy 3, Environmental Stewardship, states "the County Government and the Puakō Community shall work with other State and Federal agencies to protect and manage the rich coastal and near shore marine environment." The action would help achieve both of those policies by managing and protecting a portion of the open space along Puakō's shoreline. That and the procedures outlined in Section 3.1.3 above will also help protect the coastal and near-shore marine environment.

The action is also consistent and/or not inconsistent with other goals, objectives and policies of the South Kohala CDP, and in particular with policies that seek to guide planning for the district as a whole and for the four communities of Waimea, Waikoloa Village, Kawaihae and Puakō. Those policies include preserving South Kohala's culture and "sense of place," providing for transportation and circulation needs, protecting the community from natural hazards, providing affordable and workforce housing and promoting environmental stewardship and sustainability.

In response to early consultation, Margaret Wille raised several issues related to the South Kohala CDP. One was consideration of locating a wastewater treatment plant on these coastal properties, which has been discussed and evaluated as unsuitable in Section 2, above. Another related to preservation of the Puakō Forest, which is explicitly called for in the Plan, although consultation of the map that supports the Plan indicates that it does not identify the subject properties as within the Puakō forest. Finally, Ms. Wille raised the idea that governments should behave conservatively in regard to development initiatives in conformance with the precautionary principle to protect ecosystems that are public trust resources. In that the proposed action actually improves the character and enjoyment of public trust scenic, recreational, cultural, historic, and biological resources, the action effectuates rather than conflicts with this doctrine.

PART 4: DETERMINATION, FINDINGS AND REASONS

4.1 Determination

The State of Hawai‘i Department of Land and Natural Resources has determined, based on the findings below, and upon consideration of comments to the Draft EA, that the proposed project will not significantly alter the environment and that impacts will be minimal. The agency has issued a Finding of No Significant Impact (FONSI).

4.2 Findings and Supporting Reasons

1. *The proposed project will not involve an irrevocable commitment or loss or destruction of any natural or cultural resources.* No valuable natural or cultural resource would be involved, committed or lost. No native ecosystems or historic sites are present. No valuable cultural resources or practices such as coastal access, fishing, gathering, hunting, or access to ceremonial activities will be affected in any adverse way, and public recreation and enjoyment of scenic and historic cultural resources will benefit.
2. *The proposed project will not curtail the range of beneficial uses of the environment.* No restriction of beneficial uses would occur.
3. *The proposed project will not conflict with the State's long-term environmental policies.* The State's long-term environmental policies are set forth in Chapter 344, HRS. The broad goals of this policy are to conserve natural resources and enhance the quality of life. The action is minor and basically environmentally benign, and it is thus consistent with all elements of the State's long-term environmental policies.
4. *The proposed project will not substantially affect the economic or social welfare of the community or State.* The action will not have any substantial effect on the economic or social welfare of the South Kohala community or State.
5. *The proposed project does not substantially affect public health in any detrimental way.* The action will not affect public health and safety in any way.
6. *The proposed project will not involve substantial secondary impacts, such as population changes or effects on public facilities.* As the action involves the consolidation of State Parcels under a new lease which will help protect and preserve an existing church, and associated landscaping activities, no secondary effects are expected.
7. *The proposed project will not involve a substantial degradation of environmental quality.* The action is minor and environmentally benign, and it would thus not contribute to environmental degradation.
8. *The proposed project will not substantially affect any rare, threatened or endangered*

Hokuloa Church Lease of State Lands Environmental Assessment

species of flora or fauna or habitat. The site is vegetated primarily with non-natives with very limited native vegetation. No rare, threatened or endangered species of flora or fauna are known to exist on the site, and none would be affected by any activities of the proposed action. The action will benefit native species.

9. *The proposed project is not one which is individually limited but cumulatively may have considerable effect upon the environment or involves a commitment for larger actions.* The adverse effects of consolidating a lease and subsequent landscaping improvements are very minor and involve temporary and insignificant disturbance to air quality and noise during activities. The action is not related to other activities in the region in such a way as to produce adverse cumulative effects or involve a commitment for larger actions. Other than the precautions associated with preservation of water quality, no special mitigation measures should be required to counteract the small adverse cumulative effect.

10. *The proposed project will not detrimentally affect air or water quality or ambient noise levels.* No substantial effects to air, water, or ambient noise would occur. Brief, temporary effects could occur during landscaping and will be mitigated.

11. *The project does not affect nor would it be likely to be damaged as a result of being located in environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal area.* The action is inside the flood zone, according to FIRM maps, but no structures are proposed and all improvements will conform to appropriate regulations guiding development within such zones. Although the proposed action is located in a zone exposed to earthquake and volcanic hazard, there are no reasonable alternatives that would avoid such exposure, the action presents no additional hazard to the public, and the action is not imprudent for the State and other nearby landowners.

12. *The project will not substantially affect scenic vistas and viewplanes identified in county or state plans or studies.* The action is low-profile and does not impact the views listed in any plan, particularly those of the Hawai'i County General Plan. Furthermore, the action will likely improve views of and along the coastline from any public viewpoint.

13. *The project will not require substantial energy consumption.* Negligible amounts of energy input will be required for landscaping.

For the reasons above, the proposed action is not expected to have any significant effect in the context of Chapter 343, Hawai'i Revised Statutes and section 11-200-12 of the State Administrative Rule.

Hokuloa Church Lease of State Lands Environmental Assessment

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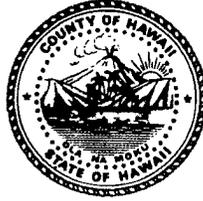
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- Wolfe, E.W., and J. Morris. 1996. *Geologic Map of the Island of Hawai'i*. USGS Misc. Investigations Series Map i-2524-A. Washington, D.C.: U.S. Geological Survey.

**ENVIRONMENTAL ASSESSMENT
LEASE OF STATE LAND
HOKULOA UNITED CHURCH OF CHRIST**

**Appendix 1a
Comments in Response to Early Consultation**

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William P. Kenoi
Mayor



Harry S. Kubojiri
Police Chief

Paul K. Ferreira
Deputy Police Chief

County of Hawai'i

POLICE DEPARTMENT

349 Kapi'olani Street • Hilo, Hawai'i 96720-3998
(808) 935-3311 • Fax (808) 961-2389

May 3, 2010

Mr. Ron Terry
Geometrician Associates, LLC
P.O. Box 396
Hilo, Hawaii 96721

Dear Mr. Terry:

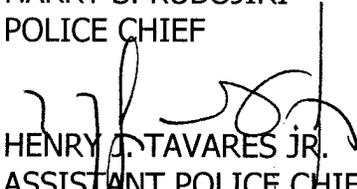
RE: Lease of State Land, Hokuloa United Church of Christ, TMK (3rd)
6-9-002: 007, 008, 009 & 010

Your request for comments on the above-indicated project has been reviewed, and we have no comments to offer at this time.

Thank you for the opportunity to comment. Should you have any questions, please contact Captain James Sanborn, Commander of the South Kohala District, at 887-3080.

Sincerely,

HARRY S. KUBOJIRI
POLICE CHIEF



HENRY J. TAVARES JR.
ASSISTANT POLICE CHIEF
AREA II OPERATIONS

JS:dmv
RS100329

William P. Kenoi
Mayor



Darryl J. Oliveira
Fire Chief

Glen P. I. Honda
Deputy Fire Chief

County of Hawai'i
HAWAII FIRE DEPARTMENT
25 Aupuni Street • Suite 2501 • Hilo, Hawai'i 96720
(808) 932-2900 • Fax (808) 932-2928

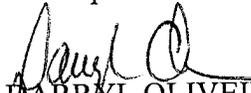
April 26, 2010

Mr. Ron Terry
Geometrician Associates
PO Box 396
Hilo, Hawai'i 96721

RE: LEASE OF STATE LAND, HOKULOA UNITED CHURCH OF CHRIST
TMK: (3RD) 6-9-002:007, 008, 009 & 010

The Hawai'i Fire Department does not have any comments to offer at this time regarding the above-referenced early consultation on Environmental Assessment and thank you for the opportunity to comment.

Please provide us a copy of the Environmental Assessment when completed.


DARRYL OLIVEIRA
Fire Chief

RP:lpc



JOSEPH F. AND HELEN D. PICKERING

May 2, 2010

Ron Terry, Principal
Geometrician Associates

By email only to: rterry@hawaii.rr.com

Re: Lease of State Land, TMK (3rd) 6-9-002: 007,008,009 and 010

Dear Mr. Terry,

Thank you for including us in your mailing of April 16, 2010 regarding the Hawaii Conference Foundation's prospective lease. We own TMK: 011 toward Puako Bay "behind" TMK:009.

We are the party who recently obtained the easements noted in the 4th paragraph of the mailing. What is most important to us is that nothing be permitted that obstructs or in any way hinders our utilization of our access and utility easements. Our principal concern, naturally, is that the EA note the presence of our amended easement and that nothing be done to block our access.

We are also concerned about what activities will be permitted by the Church along the shoreline. Some of the Kiawe trees are 100 years old. In addition to being beautiful, in our eyes, those trees anchor the soil against further erosion and provide a wind break for the Church, our property, and the adjoining state parcels along Puako Road. It is important you realize just how extensive the erosion has been just during the past 20 years. All of these trees along the shore should be protected from any cutting other than for ordinary maintenance.

We are concerned that vague terms such as "fencing" and "landscaping purposes" in HFC's proposed a lease can be interpreted to mean almost anything. This is especially important to us because two years ago the Church built a 6' high lava rock wall along most of the boundary between TMK: 009 and TMK: 011 while we were off island. The side of the wall facing our house was left unfinished with plaster exposed between the rocks and is very unsightly.

Several years ago, John Hoover, pastor at the Hoku Loa, showed us plans for the "landscaping" of TMK: 007 and 008 that included replacing " non-native plants with indigenous ones" and clearing the vegetation. These parcels are narrow, have experienced significant erosion in the 32 years we've lived in our house and the established shoreline trees are all that's preventing more serious degradation. We would advise against allowing added areas of pavement and walls that would add to erosion. This situation should be addressed in the EA.

3931 Grove Avenue CA 94303
Phone 650.493.7554 Fax 650.494.3658 pickjp@yahoo.com

000003

JOSEPH F. AND HELEN D. PICKERING

We would like to be sure the large diameter tree in the area of our southwest corner is preserved. This tree is in the general area where the three lot boundaries come together (TMK: 009,010, and 011). This tree and the surrounding vegetation add to the privacy of the private property lots that abut the Church and its frequent Church and community gatherings.

We also want to make sure that we and others are not prohibited from parking along the road on the frontage of TMK: 009, TMK: 007 and 008. This is the location used by the public to park when they fish, jog or walk along this road.

It is my understanding that when the Church received the right to use this state property the requirement was that it be available to other public and community groups... and not just under the control of this particular church. That public use provision should be specified for all state land to be leased to the Church.

We would very much like to see the draft E.A. Please send it to us and we will reply promptly with any comments. We look forward to receiving the report.

We are available to discuss these items of concern with you at most any time.

Sincerely,

Joseph F. Pickering

Helen D. Pickering

To: Ron Terry, Principal
Geometricians Associates
From: Margaret Wille
Attorney for Helen and Joe Pickering
Re: E.A. of Proposed Lease of State Land to Hawaii Conference
Foundation (hereafter Hoku Loa Church) TMK 6-9-007, 008, 009. 010.
Date: May 6, 2010

Please consider the following in drafting the Environmental Assessment for the lots proposed for lease to the Hoku loa Church:

1. Pickering Access Easements on Lot 009. First and foremost I want to be sure there is nothing in this lease that in some way harms or potentially harms the Pickering's access and utility easements. Those easements are now being drafted, and I will forward a copy to you when finalized.

2. Use of State Lots for uses other than those of the Hokuloa Church activities. As you may be aware the Hoku Loa Church's original lease was given on the condition that there be free public access on the state parcel. Consistent with that condition, there has been neighborhood and general community uses allowed here –obviously subject to reasonable conditions.

A similar condition and requirement should be part of any lease on the other parcels that the Church would like to lease.

For example, the Pickering's use lot 008 for parking if they have visitors or trades people. Likewise, other residents and visitors park along this lot 008 and Lot 007 when they come to fish, walk or bicycle along Puako Drive. As you may be aware Puako Drive is one of the few places along the Kohala Coast where people can walk or bike comfortably and do so where there is access to the ocean.

It is important that vehicles be able to park in a way that does not crowd the road right away – given the narrowness of the road and the lack of sidewalks. For this reason, in order to accommodate parking in this area, it is important that a wall or other obstacle not be placed so as to

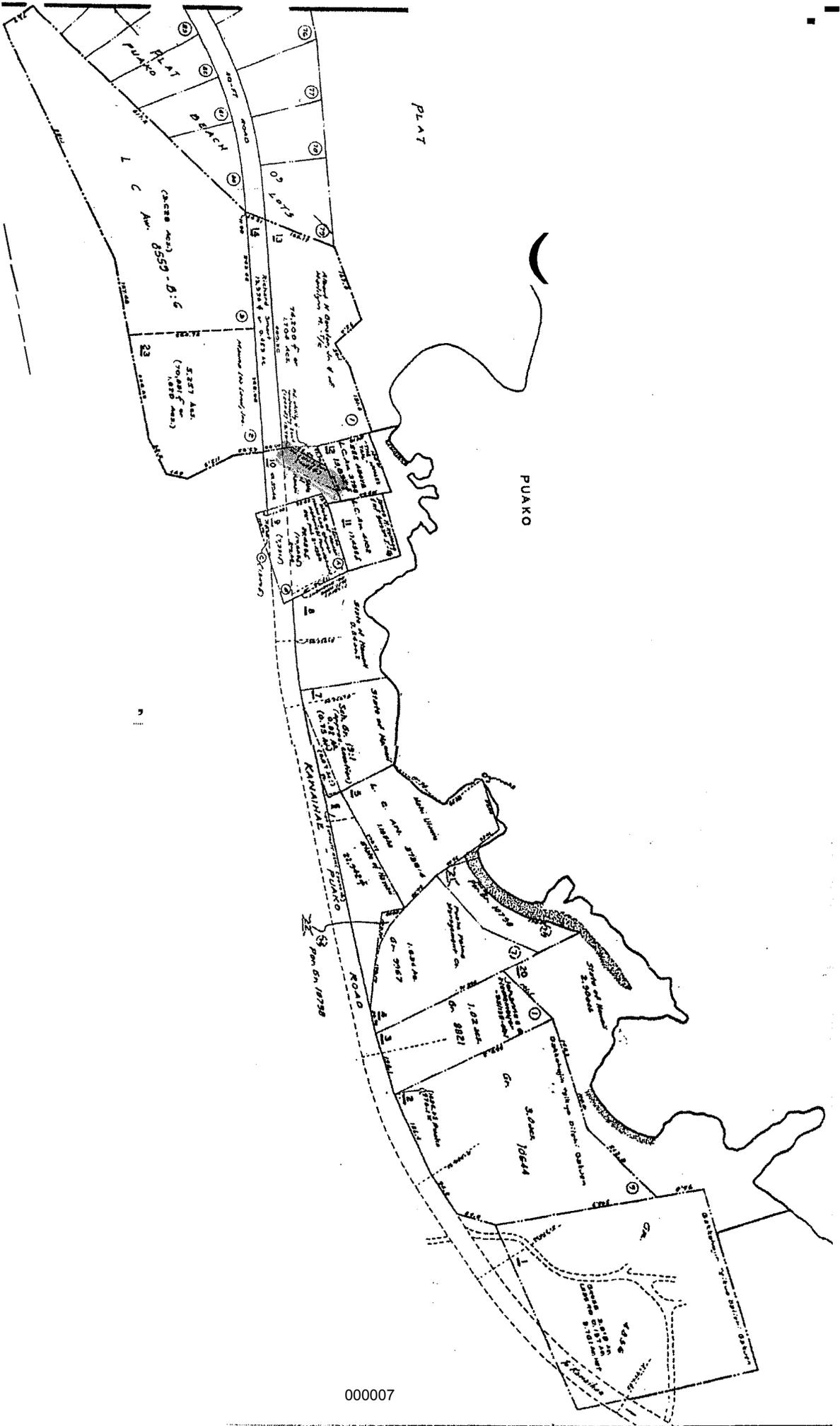
make it impossible to park along lots 008 and 007 without obstructing or endangering pedestrian traffic along the road.

Likewise if any additional buildings are to be constructed on this property, adequate facilities for restroom without any possible leakage to the shore, is essential. Likewise, just as with the existing historic church building, any additional buildings here should be similarly available for community use –subject of course to reasonable use conditions.

3. Environmental concerns. I want to make sure there are adequate environmental conditions/protections relating to the Church's use and landscaping of all of these lots. I am not sure whether the people now or in the future who head up the Church, though certainly well intentioned, will be aware of the importance of preserving the existing tree mass and associated vegetation. A plan to remove non-native species to better accommodate Church activities to the detriment of the shoreline ecosystem that would increase the already alarming rate of erosion in this area should not be permitted. For example when discussing where the Pickering's access should be located on Lot 009, a suggestion was to remove the large kiawe trees along the Kohala boundary of the property. The parties were all able to work out a better arrangement to avoid the need to remove any of these large trees – which clearly are important to prevent more active erosion here.

I am not sure most people are aware how rapidly this shoreline is eroding and my point is that this concern be specifically addressed in your environmental assessment. To emphasize this point I attach the relevant portion of the TMK map of this area. As you can readily see the shoreline has receded – on lots 008 and 007 to such a degree that there is only a small portion of these lots remaining. (I am assuming that a new shoreline certification will be undertaken.) Taking into account the imminent rise in sea levels this issue is of greatest concern.

Thank you for your consideration. If you have any questions, please feel free to contact me.



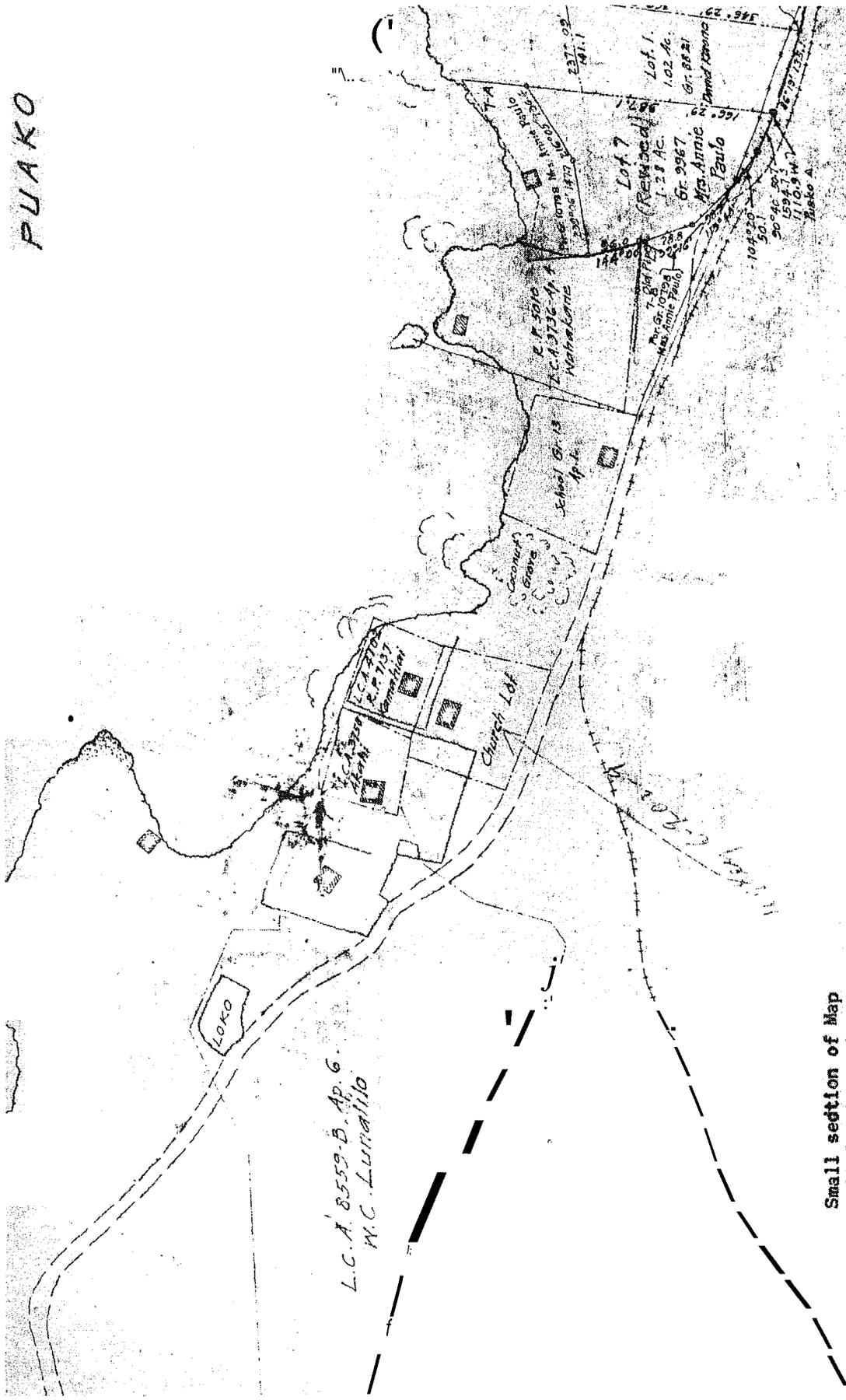
3 1437
 LALAWILO, S. KOHALA HAWAII

SUBJECT TO CHANGE

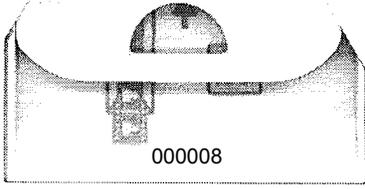
LAWYER OF RECORD			
THIRD	DIVISION	PLAT	
5	9	02	
CONTAINING PARCEL			
SCALE: 1 IN. = 100 FT.			

00007

PULAKO



Small section of Map
 Hawaii Territory Survey
 Walter E. Wall, Surveyor
 Portion of Puako and Lalani,  500 ft
 Scale 1 in = 200 ft.
 Traced from Govt. Survey Reg. 
 By R. Lane May 1928



00008

To: Ron Terry, Principal, Geometricians Associates
From: Margaret Wille, resident of South Kohala
Re: E.A. of Proposed Lease of State Land to Hawaii Conference Foundation (hereafter Hoku Loa Church) TMK 6-9-007, 008, 009. 010.
Date: May 6, 2010

For several years I was a member of the South Kohala Community Development Plan Steering Committee, as a result of which the SKCDP law was passed (Ordinance 08-159). One of the focus areas was Puako with particular concern for preservation and conservation of the environmental and cultural resources in this area.

Please consider the following in drafting the Environmental Assessment for the lots proposed for lease to the Hoku loa Church:

1. The unique importance of the Puako area resource for all residents of South Kohala,
2. That State Lots 007 and 008 are, to my knowledge, really the only remaining public open land resource in this area.
3. District level importance of Puako in terms of preservation of cultural sense of place. Need to stress the importance of this area's history and that these particular lots is where much community activity occurred – for example a state school was once located on lot 007 and the social and economic gathering area appeared to be on lot 009.
4. The use of this area generally by the public for walks and biking (from this end down to the “Paniau Park” at end of Puako Road).
5. In 2008 the Nature Conservancy requested (and I assume obtained) a Special Area Management permit to install educational signs along Puako Beach focusing on issues relating to Respect for the Coral Reef and the fragile coastal ecosystem. I would suggest that similar signage be allowed on these state lots to educate visitors. The Nature Conservancy contact person for this project was Chad Wiggins 808-443-5402 cwiggings@tnc.org.

6. The rapid erosion in this coastal area. The prospect of far more erosion along this coastline area.
7. SKCDP "Puako Community Plan" strategy 3.4 encourage state and county partnerships with non-profit entities (such as the Hoku Loa Church) encouraging collaborative efforts to manage and protect Puako's waters. Please consider use of this land resource in that context. (SKCDP page 141)
8. Likewise, in the same way, take into consideration Puako strategy 3.5 relating to the need to take into consideration water quality and watershed management considerations.
9. Take into consideration the other Puako related CDP and District level policies and strategies, relating to traffic, mitigation of impacts of natural disasters, and sustainability concerns.
10. For Puako the key action plan was to improve marine water quality in Puako. (SKCDP page 145). That overarching policy should be paramount with respect to any activities permitted on these narrow shoreline lots. Even more specifically the single action plan course of action for Puako was to promote the construction of a wastewater treatment system for the Puako Lots. I am wondering if the area at the Kohala end of Lot 007 could be used for this facility. If not where in Puako could land for such a facility be acquired without substantially adding to the cost that would be imposed on the residents of Puako -as a facilities district, or however the cost would be allocated. (SKCDP pages 145-146)

In summary, in drafting this E.A. please take into consideration the relevant CDP district level and Puako community level policies and strategies.

Margaret Wille
65-1316 Lihipali Road
Kamuela Hawaii, 96743
808-887-1419

cc: Robbie Robertson, Puako Community Association



STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
DOH/CWB

05017PKP.10

May 10, 2010

Mr. Ron Terry
Principal
Geometrician Associates, LLC
P.O. Box 396
Hilo, Hawaii 96721

Dear Mr. Terry:

**SUBJECT: Lease of State Land, Hokuloa United Church of Christ
TMK: (3)6-9-002:007, 008, 009 & 010**

The Department of Health, Clean Water Branch (CWB), has reviewed the subject document and offers these comments on your project. Please note that our review is based solely on the information provided in the subject document and its compliance with Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at <http://www.hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.pdf>.

1. Any project and its potential impacts to State waters must meet the following criteria:
 - a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.
 - b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.
 - c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).
2. You may be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for NPDES general permit coverage by submitting the applicable Notice of Intent (NOI) form:
 - a. Storm water associated with construction activities, including excavation, grading, clearing, demolition, uprooting of vegetation, equipment staging, and storage areas that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct

construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. An NPDES permit is required before the start of the construction activities.

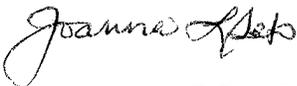
- b. Discharges of hydrotesting water.
- c. Discharges of construction dewatering effluent.

You must submit a separate NOI form for each type of discharge at least 30 calendar days prior to the start of the discharge activity, except when applying for coverage for discharges of storm water associated with construction activity. For this type of discharge, the NOI must be submitted 30 calendar days before the start of construction activities. The NOI forms may be picked up at our office or downloaded from our website at <http://www.hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html>.

- 3. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 Water Quality Certification are required, must comply with the Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.

If you have any questions, please visit our website at <http://www.hawaii.gov/health/environmental/water/cleanwater/index.html>, or contact the Engineering Section, CWB, at 586-4309.

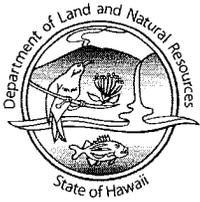
Sincerely,



for ALEC WONG, P.E., CHIEF
Clean Water Branch

KP:ml

c: DHO-EPO #I-3151 [via email only]



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

May 11, 2010

Geometrician Associates, LLC
Box 396
Hilo, Hawaii 96721

Attention: Mr. Ron Terry, Principal

Ladies and Gentlemen:

Subject: Lease of State Land by Hokuloa United Church of Christ

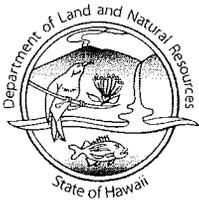
Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR), Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Division of Aquatic Resources, Division of Boating & Ocean Recreation, Division of State Parks, Historic Preservation, Land Division-Hawaii District, Engineering Division, 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,

A handwritten signature in cursive script, appearing to read "Morris M. Atta".

Morris M. Atta
Administrator



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

April 20, 2010

RECEIVED
LAND DIVISION
2010 APR 26 A 9:51
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

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 -Hawaii
 - Historic Preservation

FROM: Charlene Unoki, Assistant Administrator *Charlene*

SUBJECT: Lease of State land to Hawaii Conference Foundation for the Hokuloa United Church of Christ

LOCATION: Island of Hawaii

APPLICANT: Geometrician Associates, LLC

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by May 6, 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: *4/20/10*

**DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION**

LD/CU

Ref.: LeaseOfStateLandToHawaiiConferenceFoundationForHokuloaUnitedChurchOfChrist
Hawaii.011

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 Zones VE, and X. The National Flood Insurance Program regulates developments within Zone VE as indicated in bold letters below. But does not have any regulations for developments within Zone X.**
- () Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ____.
- (X) **Please note that the project site 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 Tyau-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 Sumimoto at (808) 523-4254 or Mr. Mario Siu Li at (808) 523-4247 of the City and County of Honolulu, Department of Planning and Permitting.
 - (X) **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.
 - (X) **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.**

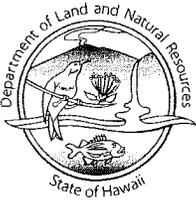
() Additional Comments: _____

() Other: _____

Should you have any questions, please call Mr. Dennis Imada of the Planning Branch at 587-0257.

Signed: 
CARTY S. CHANG, ACTING CHIEF ENGINEER

Date: 9/22/10



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

April 20, 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 -Hawaii
- Historic Preservation

RECEIVED
 LAND DIVISION
 2010 APR 27 P 3:02
 DEPT. OF LAND & NATURAL RESOURCES
 STATE OF HAWAII

FROM:

Charlene Unoki, Assistant Administrator *Charlene*

SUBJECT:

Lease of State land to Hawaii Conference Foundation for the Hokuhoa United Church of Christ

LOCATION:

Island of Hawaii

APPLICANT:

Geometrician Associates, LLC

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by May 6, 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:

Charlene Unoki

Date:

4/28/10

APR 21 10 12 AM '10

LINDA LINGLE
GOVERNOR OF HAWAII



LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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

DATE: April 22, 2010

LOG: 2010.1830
DOC: 1004RS42

TO: Charlene Unoki
Assistant Administrator
Land Division, Department of Land and Natural Resources
Post Office Box 621
Honolulu, HI 96809

RECEIVED
LAND DIVISION
2010 APR 27 P 3:15
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

SUBJECT: **Chapter 6E-8 Historic Preservation Review / Cancellation of Revocable Permit No. S-4350; Expanded Lease**
Permit # (None)
Owner: Department of Land and Natural Resources, State of Hawaii
Affected Organization: Hawaii Conference Foundation
Location: Hokuloa Church, Puako
Tax Map Key: (3) TMK (3) 6-9-002:007 through :010

The Hawaii Conference Foundation wishes to change its use agreement for the Hokuloa Church in Puako. Currently the Foundation has a Revocable Permit on one parcel, (3) 6-9-002:009, which actually extends into a portion of the County of Hawaii's Puako Road. The Foundation wants to subdivide parcel :009 to exclude the Road and add :008, :009 and portions of :010 into a master lease. The purpose of this action would be to allow further restoration, maintenance, and operation of the historical church and its environs as an active and living historical site open to the public. The area of potential effect would be all four parcels and Puako Road immediately adjacent.

The Hokuloa Church was originally constructed by the Reverend Lorenzo Lyons and is the oldest coral rock structure in South Kohala. The Church was also listed on the Hawaii Register of Historic Places effective August 23, 2008.

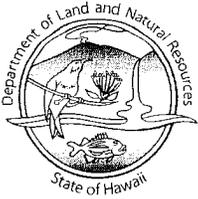
Based upon the above information, **the project will not affect historic properties.**

Any questions should be sent to Ross W. Stephenson, SHPD Historian, at (808) 692-8028 or ross.w.stephenson@hawaii.gov.

Mahalo for the opportunity to comment.

Pua Aiu, Administrator, Hawaii Historic Preservation Division, DLNR

4/26/10
Date



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

April 20, 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 - Hawaii
 Historic Preservation

RECEIVED
LAND DIVISION
2010 MAY -4 A 10:58
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

FROM: Charlene Unoki, Assistant Administrator *Charlene*
SUBJECT: Lease of State land to Hawaii Conference Foundation for the Hokuloa United Church of Christ
LOCATION: Island of Hawaii
APPLICANT: Geometrician Associates, LLC

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by May 6, 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: 5.3.10

53999

LINDA LINGLE
GOVERNOR OF HAWAII



LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT



RECEIVED
STATE PARKS DIV

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

April 20, 2010

RECEIVED
LAND DIVISION
2010 MAY -6 A 9:41
DEPT OF LAND & NATURAL RESOURCES
MAIL ROOM

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 -Hawaii
 - Historic Preservation

FROM: Charlene Unoki, Assistant Administrator *Charlene*

SUBJECT: Lease of State land to Hawaii Conference Foundation for the Hokuloa United Church of Christ

LOCATION: Island of Hawaii

APPLICANT: Geometrician Associates, LLC

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by May 6, 2010.

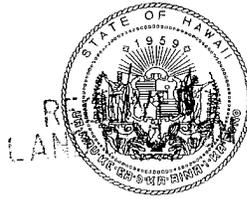
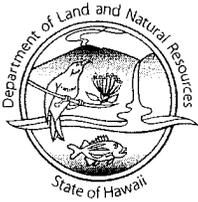
If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

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

Signed: *Charlene Unoki*

Date: 5/4/10



2010 MAY 11 P 2:59
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
NATIONAL POST OFFICE BOX 621
HONOLULU, HAWAII 96809

April 20, 2010

AQUATIC RESOURCES: 3031

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AQ REC	
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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 -Hawaii
- Historic Preservation



FROM:

Charlene Unoki, Assistant Administrator *Charlene*

SUBJECT:

Lease of State land to Hawaii Conference Foundation for the Hokuloa United Church of Christ

LOCATION:

Island of Hawaii

APPLICANT:

Geometrician Associates, LLC

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by May 6, 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.

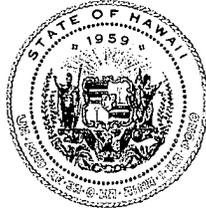
Signed:

[Signature]

Date:

28 APR 2010

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

LAURA H. THELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
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CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

May 24, 2010

Ron Terry, Principal
Geometrician Associates
PO Box 396
Hilo, Hawaii 96721

LOG NO: 2010.0941
DOC NO: 1005MD27
Archaeology

Dear Mr. Terry:

**SUBJECT: Chapter 6E-8 Historic Preservation Review –
Request for Comment on a Lease of State Land for the
Hokuloa United Church of Christ
Lālāmilo Ahupua'a, South Kohala District, Island of Hawai'i
TMK: (3) 6-9-002:007, 008, 009 & 010**

Thank you for the opportunity to comment on the aforementioned project, which we received on April 21, 2010. We apologize for the delay in our reply. You are soliciting comments on an upcoming EA regarding the church, adjacent parcels and land currently owned by the state but used by the County of Hawaii for a public road.

The church is an historic property which is currently under consideration for nomination to the National Register of Historic Places. Our staff have been involved in the nomination process and have also conducted site visits and interviews regarding possible burials at or adjacent to the church; we have determined that no known burials are located in these parcels.

We have noted however that the land as shown on County tax map keys appears significantly reduced along the shoreline.

If you have questions about this letter please contact Morgan Davis at (808) 896-0514 or via email to: morgan.e.davis@hawaii.gov.

Aloha,

A handwritten signature in black ink, appearing to read "Theresa K. Donham".

Theresa K. Donham, Lead Archaeologist
Hawaii Island Section
State Historic Preservation Division



June 2, 2010

Mr. Ron Terry
 Geometrician Associates, LLC
 P.O. Box 396
 Hilo, Hawaii 96721

Aloha Ron Terry:

SUBJECT: Lease of State Land, Hokuloa United Church of Christ
 TMK: (3) 6-9-002: 007, 008, 009 & 010

The above-referenced lease of State land presents a prime opportunity for providing *mauka-makai* and lateral shoreline public access on publicly owned land, specifically on parcels 7 and 8. Please examine the following issues and suggestions as you prepare the Environmental Assessment:

1. The lessee should be required to allow reasonable public passage within the 40-foot shoreline setback area of parcels 7 and 8 as a condition of the lease.

Continuous, lateral shoreline public access potentially exists for nearly 1.4 miles starting from Waialea Beach State Park (TMK: 6-6-02:02) and hiking west to the first seawall obstruction at TMK: 6-9-03:12. Parcels 7 & 8 are the only impassable properties in that entire stretch of coastline which features many little beaches, shady trees for comfortable walking, and easily accessible fishing spots. Thanks to the Hawai'i County Planning Department's attention to shoreline public access in their permit reviews, requirements for lateral shoreline public access exist for a number of parcels between Puakō Boat Ramp and TMK: 6-9-03:12.

TMKs (East to West)	Permit/Document #	Public Access Description
6-9-02: 1 & 2	Consol./Subdiv. 07-662	Lateral public access required. Approval of Public Access Plan pending.
6-9-02:20		State-owned land currently passable to lateral access
6-9-02:25, 24 & 4	Consol./Subdiv. 7030	Lateral public access required and recorded.
6-9-02:5	Shoreline Setback Variance 617	Lateral public access required and recorded.
6-9-02: 7 & 8		State-owned land currently impassable with <i>kiawe</i> .
6-9-02: 11, 12, 26 & 13		Seaward of these parcels, State-owned land is passable to lateral access.
6-9-03:18	Grant of Easement R2000-183426	Mauka-makai access required and leads to an expansive State-owned white sand beach area.
6-9-03: 16, 36, 15, 14 & 13		Seaward of these parcels State-owned land is passable to lateral access.

2. Please address in the EA how the State will comply with HRS §171-26, which requires the Board of Land and Natural Resources *prior* (emphasis added) to the disposition of any public lands to ensure that reasonable numbers of rights-of-way are established for public beach and hunting access, etc..
3. The existing, often-used *mauka-makai* trail on parcel 7 should be acknowledged and kept open to the public in the lease agreement. It leads to a little sandy beach where a lateral public access easement was required of parcel 5 by the County Planning Department (SSV 617).
4. Where will the Ala Kahakai National Historic Trail (NHT) be located in relation to the subject properties? It will be important to protect any historic trail remnants and other cultural sites that may be found when the thick *kiawe* growth is cleared. The lessee and State should work closely with the Ala Kahakai NHT to determine how the subject properties will be affected by the NHT's route.

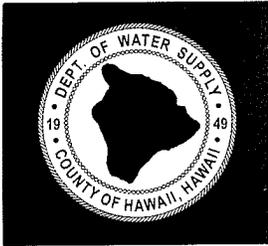
Lateral shoreline public access in Puakō is interrupted frequently by “grandfathered” seawalls. Here is a prime opportunity for the State to do what is clearly in the public’s best interests. These access points, if created and kept open, will significantly enhance the recreational and cultural values in Puakō for local residents and visitors. This is an excellent way for the Hōkūloa United Church of Christ to work with the community to re-open a much-needed access that has become impassable while concurrently improving the church’s ability to enjoy their natural and historic surroundings for church programs and activities.

Mahalo for the opportunity to provide input into the EA process.

Sincerely,



cc: Bobby Jean Leithead-Todd, Hi. County Planning Dept.
Samuel Lemmo, OCCL
Kevin E. Moore, District Land Agent
Rob Pacheco, BLNR Member
Irving Kawashima, Nā Ala Hele
Aric Arakaki, Ala Kahakai NHT



DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII

345 KEKŪANAŌ'A STREET, SUITE 20 • HILO, HAWAII 96720

TELEPHONE (808) 961-8050 • FAX (808) 961-8657

June 10, 2010

Mr. Ron Terry
Geometrician Associates, LLC
P.O. Box 396
Hilo, HI 96721

**PRE-ENVIRONMENTAL ASSESSMENT CONSULTATION
TAX MAP KEY 6-9-002:007, 008, 009, AND 010**

This letter is in response to your Pre-Environmental Assessment Consultation letter, dated April 16, 2010.

Please be informed that the Department owns, operates, and maintains an existing 12-inch waterline within Puako Beach Drive fronting Parcels 7 and 8, which extends through Parcels 9 and 10.

As noted in your letter, the applicant intends to subdivide out the portion of Parcels 9 and 10 that extend into Puako Beach Drive. Should the subdivision action or development of the subject parcels result in the relocation or modification of any of the Department's existing water system facilities, the applicant shall be responsible to bear all costs.

Should there be any questions, please contact Mr. Finn McCall of our Water Resources and Planning Branch at 961-8070, extension 255.

Sincerely yours,

(Milton D. Pavao, P.E.
Manager

FM:dfg

E Mau Na Ala Hele

PO Box 6384
Kamuela, HI 96743

June 21, 2010

Ron Terry
Geometrician Associates
PO Box 396
Hilo, HI 96721

Re: Lease of State Land, Hokuloa United Church of Christ, TMK (3rd) 6-9-002: 007, 008, 009 & 010

Dear Mr. Terry:

We are E Mau Na Ala Hele, a Big Island trail stewardship organization. Our group was instrumental in the effort that led to the designation of the Ala Kahakai as a National Historic Trail. For this reason we are always concerned when any action is taken on properties over which the Ala Kahakai traverses.

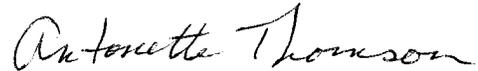
Your letter of April 16, 2010 regarding the proposed lease mentioned above lists parcels 007 and 008 over which the Ala Kahakai National Historic Trail passes. Currently these parcels are quite overgrown with kiawe and other brush. The trail is impassable at this point in time. Whatever historic physical evidence of the trail there may be is very well hidden.

Our organization would support the lease of the property to the Hawaii Conference Foundation provided that adequate provisions are in place for protection and preservation of the Ala Kahakai trail. As the property is cleared of vegetation it is imperative that care be taken to protect any historic rock walls or pathways. If no physical pathway is clearly evident, a path should be designated appropriately inland of the shoreline. The Foundation should be required to work with the Ala Kahakai NHT of the National Park Service to identify the proper location of the trail.

We are aware that a trail along the east side of parcel 007 providing access to the shoreline is currently in use. A provision for a permanent access trail to the shoreline should be made part of the lease agreement.

Please understand that we support the creation of a scenic landscaped vista by the church on these state-owned parcels and appreciate the willingness of the Foundation to take this on. Provided that adequate protections to provide for the Ala Kahakai and access for the public to the trail are in place, we believe this could be beneficial to the surrounding community.

Sincerely,



Antonette Thomson

Vice President

E Mau Na Ala Hele

cc: Kevin E. Moore, District Land Agent
Irving Kawashima, Nā Ala Hele
Aric Arakaki, Ala Kahakai NHT

August 3, 2010

Mr. Ron Terry
Geometrician Associates, LLC
P.O. Box 396
Hilo, HI 96721

Dear Mr. Terry;

Subject: Lease of State Land: TMK (3) 6-9-007, 008, 009, 010

I write to you at the suggestion of the Reverend John Hoover who visited me today and who provided me with some correspondence relating to the lease issued to Hawaii Conference Foundation on the lots known as 7, 8, 9, and 10 on Puako Beach Road on January 8, 2010.

From the correspondence provided it is evident that some letters sent to us have never arrived and I would be grateful if you could check your records and amend them as necessary so we can be assured we will get future correspondence.

The Reverend Hoover explained in some detail what is proposed for Lots 7 and 8 and my understanding is as follows:

Both lots will be cleared in stages from Puako Beach Drive to the shoreline.

The lots will be landscaped to form picnis areas as well as a platform that can be used for oceanfront weddings. We would be grateful for the plans for the landscaping when they become available.

Non-native species of trees will be removed and replaced by indigenous species.

Access will be provided from Puako Beach Drive to the shoreline for pedestrians only via a pathway adjacent to our lot.

Lateral shoreline access will be provided along both lots 7 and 8.

Car parking facilities will be provided along the lots in a manner similar to that provided outside the church now.

Except as outlined above the lots will be suitably fenced off so that access is available only with the approval of the Church.

There will be no shower or bathroom facilities provided and barbeques will not be permitted.

The fenced area will be maintained in good order by the Church.

I discussed a number of concerns with Reverend Hoover and he suggested that these be raised with you so that they can be included in the Environmental Assessment that you are currently carrying out for the Hawaii Conference Foundation.

My concerns include the following:

Noise and dust pollution during and after work has commenced.
Problems with erosion once the protection and stability provided by the overhead trees is removed.
Problems with unauthorized use of the area, since the Reverend Hoover does not anticipate daily supervision at the site.
Increased problems with vandalism and trespass on my lot.
Destruction and removal of signs
The use of foul and abusive language and threatening behavior are all too frequent now and can be expected to increase substantially when this development is complete.

I would suggest that these concerns will be shared by the owners of all lots adjacent to the development, including the Church.

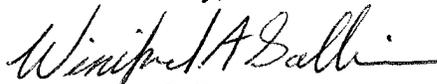
In addition to my own concerns I am informed that many of the locals feel that the clearing of these lots, particularly the trees overhanging the water, will adversely affect the existing fish breeding grounds. Also the wild beehives on the site currently pollinate a large portion of the Puako area.

The removal of the above will adversely affect the sustainability of prime ecosystems of the area. However, I am confident that these issues will be addressed by the appropriate Federal, State, and County authorities that you will be consulting.

I am copying this letter to a number of other persons for their information and action as necessary.

I would be grateful for a copy of your Environmental Assessment when it becomes available.

Yours sincerely,



Mrs. W.A. Sullivan

Cc: Laura H. Thielan, Chairperson, Board of Land & Natural Resources
Kevin Moore, District Land Agent, Dept. of Land & Natural Resources Land Div.
The Rev. John Hoover
Puako Community Association, c/o Narand Patel

Friends of Puako,

October 16, 2010

January 8, 2010 the BLNR issued a lease to Hawai'i Conference Foundation, sponsor of the Hokuhoa Church, for "Church and Landscape Purpose" including lots 7, 8. Those lots, fronting on Puako Beach Drive, run from the Sullivan's to the Church.

In April, 2010, the Hawai'i Conference Foundation/Hokuhoa Church requested an Environmental Assessment of a plan to landscape #7 and #8. The rumors are that the Church's plan includes replacing the non-native trees (kiawe and ironwood) with indigenous ones and clearing the vegetation in the area. On October 8, 2010, we wrote to Sherman Hee, Executive Director of the HCF asking that he clarify the situation and provide us a copy of the plan. We have had no response to date.

Such a plan would apparently include clearing 100 year old kiawe growing on those lots: kiawe, that, plus the ironwood trees protect the shoreline from further erosion. In the 32 years we have lived makai of the Church those trees have prevented even more serious damage to the coastline than has occurred. We believe a new shoreline certification should be undertaken and included in the EA.

Another risk in cutting the shoreline trees is destruction of the fish habitat that thrives in their shade and shadow. Snorkeling along that coast reveals schools of akule, mamo, manini, mullet, black sergeant keiki. One only has to check the damage done by the Puako One proposed development next to the boat ramp where the trees were cleared for the "view" and the fish have disappeared as erosion occurred.

Ron Terry, a Principal of Geometrician Associates, LLC, is conducting the Environmental Assessment. If you like, please send comments to Mr. Terry at GA, LLC, PO Box 396, Hawai'i 96721 or email at rterry@hawaii.rr.com.

Mahalo nui loa,
Joe and Helen Pickering
69-1598 Puako Beach Drive (2A)
pickjp@yahoo.com

Ron Terry
Geometrician Associates, LLC
PO Box 396
Hilo, Hawaii 96721

October 28, 2010

Dear Mr. Terry,

I understand from Reverend John Hoover, minister of the Hokuloa Church, that you are preparing the required Environmental Assessment as a condition for their application for a lease of TMK parcels (3) 6-9-2: 7 & 8 in Puako. I would like the opportunity to comment on what I, along with a lot of concerned residents of Puako, feel about the State leasing these parcels to the Church.

I have been a resident neighbor to the 2 State parcels since 1987 and as well, I have worked in Puako since 1987. The Church I attend and donate to is the Hokuloa Church and I have been a board member of the Puako Community Association since 2000.

The Hawaii Conference Foundation's request for a Direct Lease of TMK parcels (3) 6-9-2: 7 & 8 for landscaping purposes will destroy crucial Puako habitats and historic navigational landmarks. Reverend John Hoover has told the Puako Community Association they plan to create an "open vista" to the ocean and cut down all the non endemic trees and vegetation. For the health of the environment both on land and in the ocean, these trees on parcels 7 & 8 should not be removed.

These existing habitats rely on the Kiawe and Ironwood trees and these trees have played a key role in sustaining a healthy environment in Puako for over a hundred years. Both in the ocean and on land the abundance of wildlife raised, nurtured, living and protected by the trees on these 2 State owned parcels is tremendous. No where else in the Puako shoreline area will you find this kind of protected ecosystem left. These trees should not be cut down.

The abundance of the varieties of numerous schools of fish raised under the protection of the overhanging trees is not found anywhere in Puako. Just North of these parcels a few years ago, the developer of the now foreclosed Puako One, took it upon themselves to remove the mass of overhanging trees on State land to expand their potential owners view. Much to the dismay of long time fishermen and environmentalists, if you snorkel there now you may find only 5, 5 cm sized Mamo fish, and that is it.

Watching the huge schools of fish come to the surface to eat what has fallen from the trees, and viewing their calmness while they hide in and amongst the submerged trunks and branches, one realizes how important these Kiawe trees have become. They are and have been playing a direct role in creating and maintaining a healthy reef ecosystem and they have become "irreplaceable".

The historic tall navigational Ironwood trees have been guiding paddlers and boaters safely into harbor for a very long time. Their massive height is the marker those on the water look for. Their importance is doubled by being home to numerous bee hives pollinating Puako's vegetation. Walking safely around the base of these trees looking up at those huge old hives, one realizes the important role they play in Puako's environment.

Past shoreline "vegetation removal" in Puako has resulted in land eroding and that soil ending up farther down the coast covering up areas they should not be. History has proven that tree removal of this amount along the shoreline will result in the soil from these 2 parcels moving along in high surf and storm conditions to cover up and destroy other areas of healthy reef. The existing large established trees play an important role in retaining this soil. Any newly planted trees would take at least "another hundred years" to establish any erosion control.

For the health of the environment both on land and in the ocean these trees should not be removed. For the cultural health of future Hawaiians generations to come, who will live, fish, grow and harvest from both the ocean and the land, these trees should not be cut down. These 2 parcels 7 & 8 should remain in the States hands to be protected and left as is.

Mahalo,

Sara Fuller
69-1647 Puako Beach Drive #301
Kamuela, Hawaii 96743
home & work- 882-7711
saralynnfuller @toast.net

Date: 31 October 2010
To: Ron Terry, Geometrician Associates LLC

Dear Mr. Terry

I am writing to you because I understand that you have been hired to do an environmental assessment of lots 7 and 8, which are property of the state of Hawai'i and leased to Hawai'i Conference Foundation, and front on Puako Beach Drive from the Sullivan property to the Pickering property and Hokuloa Church.

I am concerned that there is a plan to landscape this area that calls for thinning or clearing the vegetation that is on these lots.

These lots represent some of the very last wooded land along the Puako shoreline and anything done to these woods can adversely affect the shoreline, the animal life in the woods, and the marine life along the shore.

My family has owned property next to these lots for over 30 years. In that time these trees and other vegetation have protected the area from damaging winds and limited the amount of erosion that we have witnessed in other areas along Puako shoreline that have been developed or cleared. Erosion is a serious concern for all of us with property along the shoreline, but also a concern for what it is doing to marine life in the bay.

The shoreline along lots 7 and 8 is home to a thriving fish habitat that can only survive in the shade offered by this vegetation. We are avid snorkelers and have seen the loss of fish, as well as the erosion, that has occurred near the boat ramp where trees have been cut for the proposed Puako One development. This should not be allowed to happen by messing around with the woodlands in lots 7 and 8.

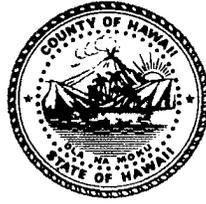
The church has not to date shared their plans with us although we have made a request that they do so. I ask that you include our concerns as you do an environmental assessment and that you or the appropriate authority undertake a new shoreline certification as part of the process.

Thank you for your consideration

Mimi Pickering
(69 1598 Puako Beach Drive)
14 Church St
Whitesburg, KY 41858

606 335-2610 mobile
mpickering@appalshop.org

William P. Kenoi
Mayor



BJ Leithead Todd
Director

Margaret K. Masunaga
Deputy

County of Hawai'i

PLANNING DEPARTMENT

Aupuni Center • 101 Pauahi Street, Suite 3 • Hilo, Hawai'i 96720
Phone (808) 961-8288 • Fax (808) 961-8742

June 14, 2010

Mr. Ron Terry
Geometrician Associates LLC
P.O. Box 396
Hilo HI 96721

Dear Mr. Terry:

SUBJECT: Pre-Consultation on Environmental Assessment
Landowner: State of Hawaii
Project: Lease of State Land to Hokuloa United Church of Christ
Tax Map Key: 6-9-2:7-10, Lalamilo, South Kohala, Hawai'i

This is in regards to your letter dated April 16, 2010, requesting our comments for an Environmental Assessment on the above referenced project.

We note the following for the four parcels:

	Parcel	Area in Square Feet	State Land Use Designation	County Zoning	General Plan Designation
1	7	35,719	Urban	Open	Open
2	8	36,590	Urban	Open	Open
3	9	28,485	Urban/Conservation	Open/A-5a	Open, Low & Medium Density Urban
4	10	16,989	Urban/Conservation	Open	Open and Low Density Urban

1. Portions of Parcel 9 (part of Puakō Road and area mauka of the road) and portion of Parcel 10 are designated Conservation. For parcels that are designated Conservation by the State Land Use Commission, there is no County zoning per se.
2. Although all parcels are located within the County's Special Management Area, only Parcel 8 has ocean frontage.

3. The South Kohala Community Development Plan was adopted by the County of Hawaii as Ordinance No. 08-159, effective December 1, 2008. A discussion of the proposed project as it relates to this plan should be included in the Environmental Assessment. In particular, the following should be addressed:
 - a. Near shore water quality impact
 - b. Sewage disposal
 - c. Watershed management
 - d. Cultural and natural resources
 - e. Traffic safety improvements
 - f. Wildfire and coastal flooding mitigation

4. The Board of Land and Natural Resources and the County of Hawai'i entered into a memorandum of understanding (MOU) with the National Park Service for cooperative implementation, management and protection of the Ala Kahakai National Historic Trail. This is a proposed 175-mile system of coastal trails within a shoreline trail corridor that partially affects the subject parcels. Therefore, you should consult with the Ala Kahakai National Historic Trail regarding implementation of the trail's Comprehensive Management Plan for this area.

5. Permits required:
 - a. A Special Management Area Use Permit Assessment Application will be required for any proposed activities or structures on these parcels.
 - b. A current certified shoreline survey and a Shoreline Setback Variance may be required for activities or structures proposed within a minimum 40 feet of the shoreline.
 - c. A consolidation and re-subdivision will be required to transfer portions of the parcels to the County and neighboring properties.

Thank you for the opportunity to provide preliminary comments. Please provide us with a copy of the Draft Environmental Assessment for our review and file.

If you have questions, please contact Esther Imamura of this office at 961-8139.

Sincerely,



BJ LEITHEAD TODD
Planning Director

ETI:cs

P:\Public\Wpwin60\ETI\Eadraftpre-Consul\Terry HCF Hokuhoa UCC 6-9-2-7,8,9,10.Rtf

cc: Planning Department, - Kona

SCHNEIDER TANAKA RADOVICH
ANDREW & TANAKA

A Limited Liability Law Company

David F. Andrew
Diane Yuen Praywell
Scott D. Radovich
Robert F. Schneider
Tod Z. Tanaka
Tracy D. Tanaka

1100 Alakea St., Suite 2100, Honolulu, Hawaii 96813
Telephone: 808.792.4200 Facsimile: 808.792.3920
Email: info@stratlaw.com

Counsel:
Gary S. Kerwood

Direct Number:
808.792.4206

Direct Email:
gkerwood@stratlaw.com

January 5, 2010

Ron Terry, Principal
Geometrician Associates
P. O. Box 396
Hilo, Hawaii 96721
Copy via email: rterry@hawaii.rr.com

Re: Lease of State Land
TMK (3) 6-9-002:007, 008, 009 and 010
Hokuloa Church
Dr. Julian "Mac" and Ms. Connie Whitaker

Dear Mr. Terry:

As I mentioned in our previous telephone conversation, we represent Dr. Julian "Mac" and Ms. Connie Whitaker (the "**Whitakers**") in connection with their ownership¹ of Units 1 and 2 of The Whale's Tail, situated at 69-1610 Puako Beach Drive (TMK (3) 6-9-002:012, CPR Nos. 1 and 2) ("**The Whale's Tail**"). The Whale's Tail property is located between TMK (3) 6-9-002:009 (the "**Existing Church Property**") and Puako Bay, slightly to the south of the Existing Church Property. The Existing Church Property is a State owned property that is subject to an existing license in favor of the Hawaii Conference Foundation ("**HCF**"), and on which is located the historic Hokuloa Church (the "**Church**"). The Church is a small facility that we understand can legally seat only 50 people.

We have learned that you have been retained by HCF to perform an Environmental Assessment (the "**EA**") in connection with an application by HCF to significantly expand the Church's property to include not only the small (approximately 19,605 usable square feet) Existing Church Property, but also three additional State-owned properties: TMK (3) 6-9-2-007 ("**Parcel 7**"), TMK (3) 6-9-2-008 ("**Parcel 8**") and TMK (3) 6-9-2-010 ("**Parcel 10**" and, collectively with Parcel 7 and Parcel 8, the "**Expansion Properties**").

¹ The Whale's Tail Condominium is a 2 unit condominium property regime, both units of which are owned by Julian Whitaker and Connie Whitaker, as Co-Trustees of the Whitaker Trust Dated February 2, 1998. The Association of Apartment Owners of The Whale's Tail is the owner in fee simple of the land underlying The Whale's Tail.

We have not yet seen HCF's specific plans for the Existing Church Property or the Expansion Properties, however, your April 16, 2010 letter inviting comments on the proposed EA (the "**April 16, 2010 Letter**") mentioned that the purpose of the direct lease of the Existing Church Property and the Expansion Properties to HCF would be to allow "restoration, maintenance and operation of [a] historical church as an active and living site open to the public on [the Existing Church Property], and to allow creation of a scenic landscaped vista and protection of the historical integrity of the Hokuloa Church on [the Expansion Properties]."

In general terms, the Whitakers support the request by HCF for a direct lease of the Expansion Properties (including Parcel 10); however, they have a number of concerns that they believe should be addressed in the EA:

1. TMK 10. Parcel 10 is a small (.39 acre), irregularly shaped lot located between The Whale's Tail property and Puako Beach Rd, immediately west of the Church and directly mauka (south) of The Whale's Tail property. Parcel 10 is subject to an existing access and utility easement² (the "**Parcel 10 Access Easement**") improved with a paved driveway leading from Puako Beach Road to The Whale's Tail property.

Those portions of TMK 10 that are not within the Parcel 10 Access Easement (the "**Parcel 10 Remnant**") are presently landscaped with dense, mature and well maintained mixture of shrubbery (including bougainvillea) and tall coconut and other trees. This existing landscaping provides a natural barrier to sight and sound between The Whale's Tail property and the main entrance to the Church.

Your April 16, 2010 Letter mentioned that the Expansion Properties (which includes Parcel 10) would be used for the "creation of a scenic landscaped vista and protection of the historical integrity of the Hokuloa Church."

The Whitakers believe that their use of Parcel 10 and the Church's use of Parcel 10 can be compatible; however, to protect this compatibility, they request that the EA address the following:

- a. The EA should be careful to distinguish Parcel 10 from the other Expansion Properties, for what should be fairly obvious geophysical, location and use reasons.
- b. The Whitakers only access to The Whale's Tail property is across the Parcel 10 Access Easement. Their first and foremost concern, therefore, is that

² The Association of Apartment Owners of The Whale's Tail is the grantee under that certain Grant of Non-Exclusive Easement dated September 5, 2003 (LOD 28, 611), recorded in the Bureau of Conveyances of the State of Hawaii (the "**Bureau**") as Document No. 2003-222574.

nothing be permitted on Parcel 10 that obstructs or in any way hinders their utilization and enjoyment of the Parcel 10 Access Easement.

c. Regardless what else might be allowed on the other Expansion Properties, the Whitakers feel that (i) that portion of Parcel 10 that is encumbered by the Parcel 10 Access Easement should only be used for an access and utility easement to the Whitakers' Property and for landscaping that preserves the existing sight and sound barrier and (ii) the Parcel 10 Remnant should only be used by the Church as necessary to protect the historical integrity of the Church. Any other use would most likely have an unnecessary and detrimental impact on the use and enjoyment of The Whale's Tail property.

d. Without limiting the foregoing thoughts, the Whitakers believe that:

(i) The Whitakers should be given a landscaping buffer of not less than 12 feet along the existing driveway for privacy screening purposes (the "**Privacy Buffer**"). This request was agreed to by the Church in a written Agreement dated February 25, 1998 (the "**Agreement**"), a copy of which is attached, and so far as we understand to date, approved by the Board of the Bureau of Land and Natural Resources ("**BLNR**") at its meeting of March 27, 1998.³ The Whitakers believe that the intent of the Agreement was to provide to the Association the right, subject to the approval of the Church, to select, plant and maintain the landscaping within the Privacy Buffer. The Whitakers believe that the Church should be required to give (by easement or otherwise) to the Association a landscaping privacy screening buffer in accordance with the intent of the Agreement.

(ii) Any barrier separating the Privacy Buffer from the Parcel 10 Remnant should either be a greenscaping barrier of suitably dense but attractive shrubbery and plant material or should be a lava rock wall typical to the numerous other lava rock walls located throughout adjacent properties, including the Church Property. Any greenscaping or lava rock barrier should be finished on both sides.

(iii) The Whitakers are willing to cooperate and participate with the Church in connection with the installation and maintenance of the landscaping and barrier within the Privacy Buffer and are more than willing to negotiate concerning the cost of such installation and maintenance.

³ See, Recital J, Assignment of Grant of Easement No. LOD S-26996 dated September 28, 1998, recorded in the Bureau at Document No. 2002-131622 through 2003-131623. Unfortunately, we have not yet had a chance to review the Board's minutes to confirm the language used in Recital J.

(iv) The existing landscaping on Parcel 10 should not be removed for the purpose of creating a "landscaped vista," as the resulting "vista" would only look out on the houses constructed on The Whale's Tail property and would not result in a view of any historical, cultural or social significance. Any such landscaping vista on Parcel 10 would run counter to the general purpose recited by the DLNR in justifying approving the direct lease of the Existing Church Property and the Expansion Properties to the Church.

(v) The Whitakers believe that the Church should not be permitted to use the Parcel 10 Remnant to materially expand its activities. Instead, Parcels 7 and 8 offer significant, essentially unencumbered, space for any approved expansion. In keeping with the intent of the Agreement, however, the Whitakers do not object to the placement of tables and chairs for special events, provided that such items are removed after the event is over to discourage unsupervised use of Parcel 10. Similarly in keeping with the Agreement, the Church should not be allowed to use any portion of Parcel 10 for parking or for construction of a parking lot.

(vi) Parcel 10 should not be allowed to be used for non-Church related public purposes or for through access by the public to the Church or to other properties.

(vii) The Church should be required to maintain the landscaping of the Church Remnant Parcel to prevent rat and pest infestation, which was a significant problem in the past.

e. The County of Hawaii Public Works Department commented on the Church's proposal and noted that County roads are required to be a minimum of 50 feet wide. To the extent that Parcel 10 is subdivided and a portion conveyed to the County, the Church should be required to make any repairs or improvements needed to restore the Whitakers' driveway and easement area to a condition substantially similar to the present.

2. Parcel 7 and Parcel 8.

a. Parcel 7 and Parcel 8 are large bay front properties (.75 acres and .84 acres, respectively), located mostly east of The Whale's Tail property and east of the Church. According to County Tax Maps, however, a portion of Parcel 8 wraps around the Whitakers' neighbor's property (TMK (3) 6-9-2-011 (the "**Pickering's Property**")) to end up makai (north) of The Whale's Tail property, separating The Whale's Tail property and the Whitaker's Property from Puako Bay. It is likely that this portion of Parcel 8 has been lost entirely to erosion, but

if not, the Whitakers believe that the EA should restrict any organized use of what the Whitakers' believe is a largely submerged portion of Parcel 8.

b. The Whitakers have the following general suggestions regarding the Church's plans for Parcel 7 and Parcel 8, both in terms of their landscaping plans and the Church's planned use of the property:

(i) We have not yet seen the landscaping plans for the Expansion Properties. Your April 16, 2010 Letter indicates that the Expansion Properties would be used for a "scenic landscaped vista and protection of the historical integrity of the Hokuloa Church." The Whitakers believe that preserving the historical integrity of the Church should take priority over creating any landscaped vista, as it is not clear the Expansion properties were ever historically used for "vista" purposes, related to the Church or otherwise.

(ii) The Whitakers are, of course, most especially concerned about the shoreline portions of Parcel 8 in front of The Whale's Tail property, but they are also concerned about other shoreline portions of Parcel 7 and Parcel 8. We understand that some of the Kiawe and other trees on these properties are over 100 years old. In addition to being beautiful, those trees anchor the soil against further erosion and provide a wind break for the Church, the Whitakers' property, and for adjoining state parcels along Puako Road. The Whitakers believe that these trees have played an important part in protecting these properties from erosion and that any existing trees along the shore should be protected from any cutting other than for ordinary maintenance.

(iii) We understand from Joe Pickering (owner of the Pickering's Property) that John Hoover, a pastor at the Hokuloa Church, showed him plans for the "landscaping" of Parcel 7 and Parcel 8 that included replacing "non-native plants with indigenous ones" and clearing the vegetation. Although replacing shrubbery and other plants with indigenous varieties might be acceptable to the Whitakers, we note that, to the extent that preserving the historic Hokuloa Church is the justification for landscaping the Expansion Properties, the EA should discuss whether there is any historical justification for replacing the mature Kiawe trees with indigenous varieties, as it seems just as likely that for most of the life of the Church, the historical vegetation consisted of Kiawe trees as any other. The EA should address whether the risk of erosion outweighs the desirability of removing these old trees.

(iv) To further minimize the risk of erosion, the Whitakers believe that the EA should provide that there should be no added areas of pavement or other improvements on the Expansion Properties that will increase the risk of erosion.

The EA should consider whether any otherwise approved parking spaces should be finished with cement pavers that allow the grass to grow through the pavers, or with some other pervious material, and whether there should be any paved picnic table or other areas allowed.

(v) We note that the Church recently built a 6' high lava rock wall along most of the boundary between the Existing Church Property and the Pickering's Property. The side of the wall facing the Pickering's Property was left in a significantly less finished condition than the Church side of the wall. This lack of attention to the finish product is of particular concerns to the Whitakers. The EA should require that any improvements built on the Expansion Properties be constructed to reflect historical themes and materials, but should be designed for durability and ease of maintenance, and finished to first class standards.

(vi) No light poles or other permanent lighting should be allowed on the Expansion Properties.

b. Uses. We have not seen any specific description of the planned uses for the Expansion Area. We think the EA should require the new direct lease with the Church to include a very narrow limitation on permitted uses to include only those uses that are compatible with a "protection of the historical integrity of the Hokuloa Church." This means uses that are compatible with a small 50 seat Church, located in the country, and not, itself, adjacent to the shoreline. Without limiting these thoughts, we suggest the following:

(i) No commercial activities should be allowed on the Expansion Properties and no camping, camp sites, fire pits, tents or overnight uses should be permitted. No permanent improvements should be allowed, except unpaved pathways, underground utilities, and minor structures for trash collection, safety and similar purposes. The Whitakers believe that the Expansion Properties should not be converted into a public park.

(ii) No new parking areas should be allowed or, if allowed, should be severely limited. Increased parking will only encourage increased traffic and congestion and use of the Expansion Properties for tour buses, tours and tourists. No tour bus parking should be allowed to be constructed on any portion of the Existing Church Property or the Expansion Properties.

(iii) Any portion of the Expansion Properties that is cleared to be made available for outdoor church services, weddings or similar events should be kept very small, so that the small and intimate character of the existing 50 seat Church can be preserved and not artificially expanded.

Ron Terry, Principal
Geometrician Associates
January 5, 2011
Page 7

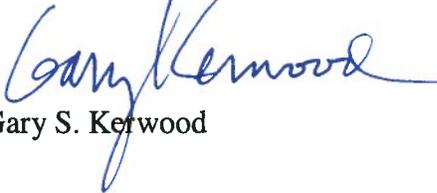
3. The Existing Church Property and Church Operations. To preserve the historical integrity of the Church, the EA should require that the direct lease limit all uses of or improvements to the Church or the Existing Church Property to those that will preserve the historical integrity of the Church. We are very concerned that the addition of over 1.5 acres of shoreline property to the small and self-contained Existing Church Property has significant potential for changing not only the character and nature of the Church, but also of the entire community around it, including The Whale's Tail and the Whitaker's Property. Instead of being primarily a local place of worship, the Church might instead become a destination for tourists or wedding businesses, with the buses and commercial vehicles and the sight, sound and environmental pollution that goes along with them.

The Whitakers believe that it is very important that the issues mentioned above be addressed in the EA in a comprehensive and thoughtful manner. If possible, we would appreciate the opportunity to comment on the draft EA before it is published, and would appreciate a copy of the final draft EA before it is published.

Thank you for giving us the opportunity to comment. If we can provide any information or assistance, please do not hesitate to contact us.

Very truly yours,

SCHNEIDER TANAKA RADOVICH
ANDREW & TANAKA, LLLC



Gary S. Kerwood

cc: Dr. Julian ("Mac") and Ms. Connie Whitaker
Sidney Fuke

encl.

AGREEMENT

This Agreement made this 25th day of February, 1998, by and between the HOKULOA UNITED CHURCH OF CHRIST (the "Church"), and the ASSOCIATION OF APARTMENT OWNERS OF THE WHALE'S TAIL, an unincorporated condominium association (the "Association").

RECITALS

A. The two-unit condominium project known as "The Whale's Tail" is located on Tax Map Key No. (3) 6-2-9:12 (the "Condo Property").

B. Roadway and Utility Easement LOD S-26996 is a roadway easement to the Condo Property which runs over adjacent land owned by the State of Hawaii, designated as Tax Map Key No. (3) 6-2-9:10 (the "State Property").

C. The Association has requested that the Board of Land and Natural Resources, State of Hawaii, ("BLNR") approve the realignment of the easement over the State Property to conform to the driveway as it actually exists on the State Property, with a margin on either side of 12 feet to allow landscaping screening for privacy for both the Association and the Church. The Association also requests that the easement run in favor of the Association.

D. The Church occupies the adjacent property described as Tax Map Key No. (3) 6-2-9:09 (the "Church Property") under Revocable Permit #S4350.

E. The Church intends to ask the BLNR for a revocable permit for the State Property, exclusive of the easement area sought by the Association.

F. The Association and the Church agree to support each other's requests, based on the terms and conditions contained herein.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual promises contained herein, the parties agree as follows:

1. The Association will cooperate with the Church in the selection and planting of all landscaping within the 12-foot margin on the side of the existing driveway over the State Property. The Church shall have the right to approve or disapprove of any such landscaping within this 12-foot margin.

2. The Association will support the Church's request to BLNR for the appropriate use by the Church of the remainder of the State Property. Such use shall not include use of the State Property as a parking lot. Tables and chairs may be placed on the State Property for special events, but they will be moved after the event is over to discourage the unsupervised use of the State Property.

3. This Agreement may be executed in any number of counterparts, which when so executed and delivered shall be deemed an original, and such counterparts shall constitute one and the same agreement. In making proof of this Agreement, it shall not be necessary to produce or account for more than one such counterpart. Facsimile signatures on this Agreement shall be binding and effective for all purposes and treated in the same manner as physical signatures.

IN WITNESS WHEREOF, the parties have signed this Agreement on the day and year first above written.

APPROVED AS TO FORM:

HOKULOA UNITED CHURCH OF CHRIST

Stephen D. Whittaker
STEPHEN WHITTAKER

By _____
Its

APPROVED AS TO FORM:

ASSOCIATION OF APARTMENT OWNERS OF THE WHALE'S TAIL

Lynn H. Higashi
LYNN H. HIGASHI

By Linda Doornbos
Linda Doornbos, Owner

By _____
Robert Peabody, Sr., MD,
Owner

By _____
Betsy Peabody, Owner

By _____
William Adams, Owner

By _____
Janica L. Adams, Owner

2. The Association will support the Church's request to BLNR for the appropriate use by the Church of the remainder of the State Property. Such use shall not include use of the State Property as a parking lot. Tables and chairs may be placed on the State Property for special events, but they will be moved after the event is over to discourage the unsupervised use of the State Property.

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APPROVED AS TO FORM:

HOKULOA UNITED CHURCH OF CHRIST

STEPHEN WHITTAKER

By Rev. John P. Hoover
Its Organizing Minister

APPROVED AS TO FORM:

ASSOCIATION OF APARTMENT OWNERS OF THE WHALE'S TAIL

Lynn H. Higashi
LYNN H. HIGASHI

By Linda Doornbos
Linda Doornbos, Owner

By Robert Peabody, Sr., MD,
Owner

By Betsy Peabody, Owner

By William Adams, Owner

By Janice L. Adams, Owner

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STEPHEN WHITTAKER

By _____
Its

APPROVED AS TO FORM:

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OF THE WHALE'S TAIL

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LYNN H. HIGASHI

By Linda Doornbos
Linda Doornbos, Owner

By _____
Robert Peabody, Sr., MD,
Owner

By _____
Betsy Peabody, Owner

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By Robert Peabody, Sr., MD.
Owner

By Betsy Peabody
Betsy Peabody, Owner

By William Adams
William Adams, Owner

Janice L. Adams
Janice L. Adams, Owner

Mr. Gary Hoff
P.O. Box 1115
Kapaau, HI 96755

January 10, 2011

Geometrician Associates, Inc.
Ron Terry, Principal
PO Box 396
Hilo, Hawaii 96721

Dear Mr. Terry,

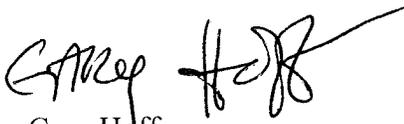
I understand that you are preparing an Environmental Assessment in the matter of the Lease of State Land, Hokuloa United Church of Christ, TMK (3rd) 6-9-002: 007, 008, 009 & 010.

I am a member of Hokuloa UCC and a teacher at Kamehameha High School, Hawaii campus. In that capacity, one of the underlying motivations I maintain as a teacher is the preservation of Hawaiian history and culture. My concern is this matter is stewardship of the coastline.

I have been quite dissatisfied with the neglect of the property in question. I am a member of Hokuloa UCC and commend the church for taking responsibility for the land. I also want to commend the church for making provisions to extend the Ala Kahakai trail alongside the church.

Thank you very much for your time.

Sincerely,


Gary Hoff

Rev. Linda Petrucelli
P.O. Box 1115
Kapaau, HI 96755

January 10, 2011

Geometrician Associates, Inc.
Ron Terry, Principal
PO Box 396
Hilo, Hawaii 96721

Dear Mr. Terry,

Thank you for inviting community input concerning the Lease of State Land, Hokuloa United Church of Christ, TMK (3rd) 6-9-002: 007, 008, 009 & 010 in the preparation of an Environmental Assessment.

I am a member of Hokuloa UCC and a professional clergy woman with ministerial standing in the Hawaii Island Association of the United Church of Christ. For the past several years I have been quite concerned about continual encroachments upon the church land.

My concern is that the historic and architectural uniqueness of the chapel must be protected as part of Hawaiian history. It is a treasure that enriches the lives of many worshipping members as well as representing a part of the island's history that in many places is fast disappearing. A buffer of land is necessary to preserving the continuing legacy of the church.

Thank you very much for considering my input.

With every good wish,



Rev. Linda Petrucelli
Hilo Coast UCC
Interim Minister

January 10, 2011

Geometrician Associates, Inc.
Ron Terry, Principal
PO Box 396
Hilo, HI 96721

Subject: Lease of State Land, Hokuloa UCC, TMK(3rd)69-002: 007, 008, 009 & 010

Dear Mr. Terry,

I have attended the Hokuloa church for many years. I attended in the early 1990 while I owned property in Puako. I returned to the island about 2 years and now reside in Waikoloa. I have been attending the church since then. So, I am familiar with the surrounding area and some of its history.

I support without hesitation the direct lease for the Church to cover TMKs 6-9-002:007, 008, 009 and 010.

The reason for my support is straight forward. I have found the Church to be an advocate of land and building conservation without any attempt at personal or monetary gain. I have observed that people opposing this lease, are taking that position to further their personal wealth. It is my fear that if the direct lease is not granted, much of the land in question would be the subject of development instead of preservation. The church has demonstrated its ability to restore and preserve the area. This can not be said for some of the surrounding property owners.

I wish you success in the development of EA.

Sincerely,


Gilbert Villalobos

MARGARET WILLE
ATTORNEY AT LAW
65-1316 Lihipali Road
Kamuela Hawaii 96743
Tel: (808) 887-1419 / 854-6931
Fax: (808) 887-1489
Email: margaretwille@mac.com

January 12, 2011

Ron Terry, Principal (copy via email)
Geometrician Associates
P.O. Box 396
Hilo, Hawaii 96721

Re: Environmental Assessment: Conditions of State Lease
TMK 3-6-9-2: lots 7, 8, 9, and 10.

Dear Mr. Terry:

I am writing to you on behalf of Joseph and Helen Pickering, Trustees of the Pickering Trust, the owners of TMK 3-6-9-2:11 (lot 11) located off Puako Road, South Kohala, which parcel is adjacent to the above referenced state-owned lots.

The Pickerings recently received a copy of the January 5, 2010 letter sent to you by Attorney Gary Kerwood of Schneider Tanaka Radovich Andrew & Tanaka on behalf of the Pickering's neighbors Dr. Julian Whittaker and Ms. Connie Whittaker, owners of TMK 3-6-9-2:12.

Although the Pickerings are supportive of the Hawaii Conference Foundation's (HCF's) desire to care for the subject lots for the "protection of the historical integrity of the Hokuloa Church", they share many of the same concerns outlined in Attorney Kerwood's letter. In particular they object to removal of vegetation now growing on these lots and to any activities that may significantly harm the vegetation or increase the risk of erosion.

There are very few undeveloped state parcels remaining along the coast in areas of important fish habitats, and therefore exceptional care should be taken in review of any development proposed on these lots. For that reason I want to take a moment to review several pertinent overarching legal principles and key factual considerations that are relevant to this environmental assessment. I wish to stress that the following concerns and objections are not personal to HCF or its members. From my experience however there is generally superficial knowledge about how we are harming our precious environmental habitats – which are not simply an environmental but also a cultural and economic concern. For example snorkeling and scuba diving along the Puako coast – is an important aspect of our visitor recreational sector, not to mention its importance as a recreational/health asset to our island-wide residents.

Legal Background:

The Environmental Assessment process is based on implementing the Hawaii Environmental Quality Control Act – with the purpose to “stimulate, expand, and coordinate efforts to determine the optimum quality of the environment of the state.” The goal in this review should accordingly be to maintain the optimum quality of the shoreline ecosystems on the subject parcels and adjacent coastal waters.

Likewise the Hawaii County Charter was recently amended to place an affirmative burden on the County to adhere to the Public Trust doctrine, and associated precautionary principle. Similarly, the 2008 South Kohala Development Plan (SKCDP) incorporates the mandate of the Public Trust doctrine and associated precautionary principle, to protect our natural resources. I attach a copy of page 9 of the SKCDP discussing the public trust doctrine and the precautionary principle. In particular I draw your attention to the SKCDP assessment:

The precautionary principle requires long-term vision and mandates that government entities favor caution and conservation in any case in which information is uncertain. The burden of proving that the resource is adequate and that the proposed use is consistent with the sustainable health of the ecosystem falls on the party proposing to use the resource.”

In keeping with the above precepts, the Hawaii Supreme Court in the recent Superferry I decision affirmed that secondary impacts must also be addressed “in addition to the direct site of impact the agency must also consider other impacts that are ‘incident to and a consequence of the primary impact.’”

Factual background:

As generally acknowledged the relative sea-level rise on Hawaii Island is most pronounced on the Big Island given the combined impact of various factors --from global warming to the accentuated dropping of the earth’s mantle beneath the island of Hawaii. (According to the National Oceanic and Atmospheric Administration, the sea level is expected to drop 1.6 inches a decade here on Hawaii Island compared to 0.6 inches on Oahu.) A look at the available maps and surveys of the Puako area reflects the rapid erosion in this area – regardless of the cause. I assume you have copies of these maps, but upon request, I can provide that documentation. (Please note that contrary to surveys conducted in the past, the portion of lot 8 that previously “wrapped around” the Pickering’s Lot 11 no longer exists, and along with some of the previously surveyed area of the Pickering’s Lot is now below the shoreline.)

In reviewing the Church’s proposed development plan, please keep in mind that “Forest conservation plays a critical role in maintaining the health of the makai (ocean) resources like coral reef ecosystems and limy beds” as well as curbing the rapid erosion of the coastline [quoting from “Hawaii Statewide Assessment of Forest Conditions and Trends 2010 An assessment of our Aina” prepared by the Department of Land and Natural Resources Division of Forestry and Wildlife June 2010]. Likewise that report stresses the current limited data and information gaps – which underscores the need to resist the temptation to remove any shoreline vegetation –until more attention is paid to the cumulative impact of all of these factors.

Finally I ask you to keep foremost in mind the generally acknowledged fragile state of the aquatic habitats along the west side of our island and the increasing cumulative perils affecting these very few

remaining shoreline fish habitats –which are highly dependent upon shade over the shallow waters. In keeping with this concern, I wish to stress that whereas, there is general agreement we need to give a preference for planting of “native plants” where appropriate, HOWEVER, it is wrong to translate that preference into a license for landowners to justify removal of “non-native” species, which often are on balance providing an environmental benefit. At this Puako location, the benefit of the existing mature kiawe trees is well established-- providing the important shade needs of this fish habitat. (They are also considered a cultural asset in the SKCDP). Removal of any of these trees and replacing them with some more “native” vegetation would clearly adversely affect the aquatic ecosystem in this location. Also, please keep erosion and wind damage issue in mind. A recent example of the potential for erosion occurred on December 23 – 24 when a flood of up country water washed over Puako Beach Drive in the vicinity of Lots 7 and 8 and washed dirt from two lots that had been cleared in anticipation of development into Puako Bay. The brown streaks of dirt clouded the waters of the Bay for at least three weeks, and presumably settled upon and harmed the adjacent coral reef ecosystem.

RECOMMENDATIONS: It is from the perspective of the above legal and factual analytical framework that on behalf of the Pickering family, I request that in all aspects of the development proposals the above principles and factual background be considered, and specifically suggest the following:

- 1) Retention of all trees and other significant vegetation be required (in other words, HCF should not be permitted to remove any mature trees or other significant vegetation on any of the HCF leased lots.
- 2.) Limited paths to the shoreline be permitted only where the existing significant vegetation is not disturbed, and where erosion and run-off can be prevented.
2. Prohibit the use of herbicides and bio-controls for any landscaping or other activities.
3. Any improvements to the mauka areas on these lots be carried out in a manner that will not cause additional erosion or run-off seawards.

4. Whereas public parking along the road easement should be allowed (and not prohibited), no hardscape (asphalt or otherwise) should be required or permitted on any of the subject lots.

5. Consistent with preserving and protecting the Pickerings easements across Lot 12, no landscaping or other activities that would in any way affect the Pickering's easements should be permitted on any of the subject lots. Most importantly, none of the kiawe trees – some of which are reportedly 100 years old – should not be removed.

In sum, there are very few remaining state-owned shoreline parcels and certainly at this Puako location exemplary attention must be paid to environmental concerns. Once HCF finalizes its development proposal, the Pickerings would like to review HCF's detailed proposed use of these adjacent lots and would be happy to assist in designing a plan that is appropriate in light of the above concerns.

Sincerely,

Margaret Wille, Attorney for Joseph and Helen Pickering

1.5 PRECAUTIONARY PRINCIPLE

Recently the Hawai'i Supreme Court provided some guidance for those engaged in this balancing process at the County level. The Court articulated a public trust framework for natural resource decisions both at the State and County level. The Court clarified the constitutionally mandated "Public Trust Doctrine" imposes upon the Counties the stewardship responsibility to "future generations" to conserve and protect Hawai'i's natural beauty and all natural resources. On this point, the Hawai'i Constitution Section XI subsection 1 provides:

"For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawai'i's natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State. All public natural resources are held in trust by the State for the benefit of all people."

It is on the basis of this constitutional "Public Trust" provision that decisions involving land and water must be guided by the "Precautionary Principle" when we weigh our private wants against the ability of the environment to accommodate those wants. The precautionary principle requires long-term vision and mandates that government entities favor caution and conservation in any case in which information is uncertain. The burden of proving that the resource is adequate and that its proposed use is consistent with the sustainable health of the ecosystem falls on the party proposing to use the resource.



View from the pu'u above Waimea Town

We must also be mindful that if a privately owned resource is of significant value and is worthy of preservation for the benefit of the community at large, that it may well be appropriate for the community to compensate the property owner for the loss in value resulting from significant limitations imposed upon their use of the property.

In its efforts to draft this CDP, the Steering Committee has sought to balance these interests consistent with its stewardship role in preserving the beauty and natural resources of South Kohala for the welfare of both present and future generations.



**Hawaii Island Festival - 30 Days of Aloha
P.O. Box 1819
Kamuela, Hawaii 96743**

13 January 2011

Ron Terry, Principal
Geometrician Associates, Inc.
Ron Terry, Principal
PO Box 396
Hilo, Hawaii 96721

RE: Lease of State Land, Hokuloa United Church of Christ,
TMK (3rd) 6-9-002: 007, 008, 009 & 010

Mr. Terry,

I am the Project Manager for Hawaii Island Festival, fka Aloha Festival, and a frequent visitor to Hokuloa United Church of Christ ("Hokuloa").

In view of the fact that this historic church has cultural ties back to Kamehameha and Reverend Lorenzo Lyons, we decided it would be most appropriate to have our Royal Court participate in Hokuloa's worship service during our yearly events.

The Royal Court is symbolic of days long past, the members are dressed in cultural garments such as their lei palaoa, the King's feather cloak, kahili bearers carrying the colors of the ali'i as well as a court chanter, kahu and ladies-in-waiting.

The Royal Court is welcomed graciously by Reverend John Hoover and the church members. The visitors attending service at Hokuloa have a time of questions, answers, learning and picture taking.

Our committee works tirelessly to preserve and perpetuate our native cultural resources, e.g., language, customs, practices, land and treasures, such as Hokuloa.

Please be assured that Hawaii Island Festival supports Hokuloa Church and its request. It is our hope that your environmental assessment will be in favor of Hokuloa Church.

If you have any questions, do not hesitate to contact me at 936-3706. I remain,

Very truly yours,

A handwritten signature in black ink, appearing to read "Moani Akana", with a long horizontal flourish extending to the right.

Moani Akana, Project Manager
Hawaii Island Festival

<http://www.hawaiiislandfestival.org/>

Dear Sirs -

My name is David Pratis and I am not only a close neighbor of John Hoover, the pastor of the Hokuhoa United Church of Christ; but I am also a frequent visitor to the Puako area and coastline.

I have hiked along the coast line there by the church, as I have much of the Gold coast. I was quite happy to hear about the possible consolidation of lots 7, 8, 9, & 10 in a lease to Hokuhoa Church. Especially with the church accepting the responsibility and stewardship of the land, we can be assured of its care. I can only see a positive response from the community for improving the utility of the adjacent state land. Making it available for the general public and residents of Puako is a win win situation for the state and community.

Trimming and clearing up the Kiawe forest in those parcels would begin to rehabilitate this historical place so special to the people of the Big Island.

Mahalo

David Pratis
resident of Hokuhoa Village

**Gillian R Flack
68-1125 N Kaniku Dr #1302
Kamuela
HI 96743
(808)-887-1302
flackr@aol.com**

Ron Terry, Principal
Geometrician Associates, Inc.
P.O.Box #96
Hilo
HI 96721

Wednesday January 12, 2011

Re: Lease of State Land, Hokuloa United Church of Christ, TMK (3rd)
6-9-002: 007, 008, 009 & 010

Dear Ron,

I am writing to support Hokuloa United Church of Christ in this matter.

I moved to the island of Hawaii within the past year to spend our retirement here. I had recently retired after almost 50 years of work as a church musician in Britain, Connecticut, California and Arizona.

I had not intended to work for a particular church again but rather, work as a substitute around the island. I received several offers but then we attended Hokuloa one Sunday as it is so close to our home. The welcome we received and their attitude to the preservation of the Hokuloa Church and the Hawaiian heritage led to my decision to work at the church. I am now the Director of Music at Hokuloa Church.

I was greatly impressed by the dedication of the Minister, Reverend John Hoover and the members of the church. They are committed to upholding the tradition of the Hawaiian church founded on the site those many years ago by the beloved Reverend Lorenzo Lyons. After further research, I realized the full extent of the place Hokuloa holds in both Hawaii's cultural, educational and religious history. It was such a transforming influence in the lives of those who lived in Puako. Hokuloa's significance in this culture should be recognized and celebrated. It should not be the subject of disputes over inappropriate land use.

The church has worked to support the extension of the historic Ala Kahakai Trail along the Puako coast.

Growing up in Great Britain and visiting much of Europe awakened a love and respect for historic sites. How much our societies would lose if history were not respected and celebrated. Part of the reason for settling on this island, and indeed this state, is the respect shown in Hawaii today for their history and culture.

I have occasion to be on site alone and each time, I am asked to show the church to people who stop to visit. They are delighted to hear some of the history and are guided there by the Historic site marker. If our visitors respect the Hawaiian culture so much, then it is for us to preserve and share those very buildings and sites that are invested within that tradition.

I wholeheartedly support the efforts by Hokuloa Church to protect the church lot from encroachment by other parties and request that the State of Hawaii act accordingly.

Many thanks for your attention,

A handwritten signature in cursive script, appearing to read "Gillian".

Gillian Flack
Director of Music
Hokuloa United Church of Christ
69-1600 Puako Beach Road
Kamuela
HI 96743

68-1125 N Kaniku Dr Apt 1302
Kamuela
HI 96743

Jan 13th 2011

Geometrician Associates Inc
PO Box. 396
Hilo
Hawaii 96721

Ref: Lease of State Land, Hokulua United Church of Christ
TMK 6-9-002 : 007, 008, 009 & 010

Dear Ron,

I am Russell Flack. I moved here with my wife to the Big Island in early 2010 and reside at the Mauna Lani Resort Fairways.

I have been a church attending christian for all of my life. It was a great joy to find the Hokulua UCC church in this area of the Big Island.

What a treasure. A Hawaiian historic church building in a restored state that can be used! An active church congregation that both treasures the heritage of Missionary Rev. Lorenzo Lyons and his work, and being an active congregation that ministers to the neighbourhood of South Kohala.

I fully support the Lease Plan.

I have seen that Hokulua UCC is a caring group for its neighbourhood with charity works in Waikoloa and Puako and great worship traditions with links to Hawaii culture.

The leasing of the Lots 6,7,8 and 10 that are adjacent to the Church Lot will allow for a very positive environmental impact to the north end of Puako. With the church leasing those Lots the present eyesore of invasive trees and overgrowth spoiling the shoreline and the present lot that the historic church occupies and the road way to Puako is solved. Those Lots will be developed reflecting the care of an active community that respects the Hawaiian heritage.

Additionally with the Lease of those lots to the Church the objective of the Hawaii Conference Foundation can be better meet with a careful development of that area to reflect the mission of that group. If the Leases are not granted that mission is compromised for the future with indiscriminate development of those lots in any number of ways.

Yours sincerely,



Russell Flack

MARY M. MORRISON

68-1029 Ke Kailani Drive
Kohala Coast, HI 96743
(808) 885-0072
fax: (808) 885-0322
e-mail: ememem@aol.com
January 14, 2011

Ron Terry
Geometrician Associates, LLC
PO Box 396
HI 96721

Dear Mr. Terry:

As a former long-time resident of Puako and the author of *Puako: an Affectionate History*, I have a lengthy association with, and interest in, Hokuloa Church. It occupies a unique place in the historical and cultural timeline of the community, the island of Hawaii and the state.

The church deserves to be recognized and preserved, and it should be framed in a setting that indicates its historic boundaries including the abutting property that was once the site of the school and the canoe landing, and which was traversed by the Ala Kahakai Trail.

There is also a crying need for the boundaries of the State Land to be regularized as regards the county road, the easements and the adjacent properties.

I applaud the proposed plan which appears to address and resolve these problems in a fair and equitable manner.

Sincerely,



Mary M. Morrison

Dear Ron Terry,

I am a member of Hokuloa's sister church, Imiola, in Waimea. My wife and I occasionally attend services for more than 20 years at Hokuloa and find them spiritually uplifting.

We have heard that some of the neighbors are sending negative letters to an Environmental Assessment which Hokuloa is having done in compliance with Chapter 343, HRS.

My view is that these neighbors should recognize that they are the new people on the block because the land was given for a Church by King Kamahamaha III long before they built their homes. Their complaints are analogous to people who build or purchase homes at the end of an airport runway and then complain about low flying aircraft. As a retired military aviator, I have seen many such complaints.

To my knowledge, Hokuloa has always been a good neighbor, and both the building and grounds are well maintained by volunteer members. If plots 7 and 8 are returned to the jurisdiction of the Hokuloa Church, I believe that the shore line will be better maintained than currently by the State which has limited manpower and funds.

Sincerely,

David B. Gomes

Geometrician Associates, Inc.
Ron Terry, Principal
PO Box 396
Hilo, HI 96721

January 12, 2011

Dear Mr. Terry:

I am writing to you regarding the environmental assessment pertaining to the Hokuloa United Church of Christ in Puako, South Kohala, Big Island, Hawaii.

My wife and I came to the big island first in 1972, and except for 1973, every year thereafter until moving here permanently in 2003. We became aware of Puako in the late 1970s, and I can tell you that we are sorry we did not buy property on Puako Beach Drive as soon as we saw this lovely spot. I do not have to tell you how much the area has appreciated in 40 years, but I can say that the land values there are way beyond our reach in 2011.

On our annual visits, we stayed at various rental homes along Puako Beach Drive, and in the 80s, it was still a quaint beach home destination with considerable local flavor. We went to church at Hokuloa, and eventually, on becoming permanent Hawaii residents, became members of the church about 6 years ago. All this preliminary information is included to let you know that we are very familiar with Puako, its dynamics and the coast line and ocean immediately adjacent to Puako Beach Drive.

We were thrilled when "our" little church achieved historic status with the state of Hawaii, and we believe that preservation of such landmarks, and the surrounding territory are a vital part of the ongoing effort we who live in Hawaii should be championing.

In the last 15-20 years, we have seen the community of Puako expand dramatically with building of massive vacation homes rarely used by their owners. Traffic in the area has increased dramatically, and on a recent Sunday, I counted more than 200 cars passing the church within 30 minutes! I am told that there is tremendous pressure to acquire any remaining property in the area for more development in view of the apparent profitability of commercial and residential expansion.

Therefore, it seems to us that any effort which can be made to preserve the land around our dear little church is in the interest of all who wish to see a balance between historic lands and already developed properties. What is needed is an expansion of "open property" and not more commercial development. We believe that the members of Hokuloa Church have agreed that any and all properties (specifically parcels 7,8,9 and 10) should be preserved in perpetuity for all Hawaiians and our visitors. We have pledged that these lands should be restored to their natural beauty by removing refuge and dead flora from the land to open up the scenic vistas of the ocean and islands to the east of us.

We trust that you will consider our appeal with gravity and hope that these ideas will carry weight in your assessment deliberations.

Mahalo,


Bob and Joy Appleman
59-403 Pupu Place
Kamuela, HI 96743

January 17, 2011

Robert and Shirley Stevens
69-1885 Puako Beach Dr
Kamuela, HI 96743

Geometrician Associates, Inc.
Ron Terry, Principal
PO Box 396
Hilo, Hawaii 96721

Subject: Lease of State Land, Hokuloa United Church of Christ, TMK (3rd) 6-9-002: 007, 008, 009, & 010.

We have been residents and property owners in Puako since 1978 and members of Hokuloa Church since 1990. We love Puako and the church very much and wish to enhance the beauty of the entrance to Puako evidenced in part by the church grounds.

We have witnessed the attempted encroachment on the church property by neighbors in recent years and would like to see the Church property defined more accurately.

The development of property on the makai side of the road has almost totally blocked views of the ocean. The clearing of brush and the landscaping of the newly leased lots would be a welcoming park like view to visitors. The clearing of dead and dying trees would enhance the fire safety of our community as we have seen cigarette butts on the lots while walking there.

Sincerely,
Robert C. Stevens
Shirley J. Stevens

PATRICIA P. K. LEWI
65-1231 Puu Opelu Road
Kamuela, Hawaii 96743

January 16, 2011

Geometrician Associates, Inc.
Ron Terry, Principal
P.O. Box 396
Hilo, Hawaii 96721

SUBJECT : Lease of State Land, Hokuloa United Church of Christ
TMK (3rd) 6-9-002: 007, 008, 009 & 010

By way of introduction, my name and address are listed above. I am a lifetime resident of the South Kohala District, and a member of Hokuloa Church, UCC. As a native Hawaiian and a lifetime member of a Congregational church, and an admirer of the beloved missionary, Rev. Lorenzo Lyons, I strongly support Hokuloa's request for a direct lease for Church and Landscaping Purposes for the above-named TMK lots.

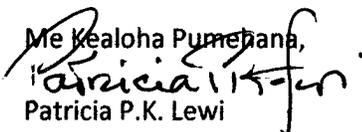
Hokuloa Church has demonstrated that it is a responsible steward of the land and an active part of the Puako community. The lots in question have a long historical connection to the church, and it is appropriate that they be connected as a single historical site.

The value of this historic church to the Puako community and South Kohala is expressed in many ways. Not only is it an active place of worship and a community meeting place. It is a cultural treasure and a beautiful place to visit. It improves the property values of the neighborhood and Puako Beach Drive.

As a member of the Ahahui Kaahumanu, one of the four Hawaiian royal societies, we choose to worship at Hokuloa annually as we appreciate the fact that it is one of the 14 churches built by Lorenzo Lyons. It has protected the integrity of the church by retaining and maintaining its original architecture, and continued in its ministry as was its original intent, as well as retained the Hawaiian culture in its hymns, its language, and in observing Hawaiian cultural events.

Lots 7, 8, and 9 have a long historical connection to Hokuloa. The Puako School was located on Lot 7 and was the responsibility of the church for most of its existence. The historical tie is significant and it is appropriate that they be connected as a single historical site. Lot 8 was frequently used as a gathering place for those attending activities at the church and the school.

It is my hope that this letter of support will truly help Hokuloa in its quest for a direct lease. So much of Hawaii is being exploited for personal gain. Efforts to preserve Hawaii's culture and history will have a far-reaching impact not only for today, but for the future.

Me Kealoha Pumeana,

Patricia P.K. Lewi

68-1887 Pau Nani St.
Waikoloa, HI 96738

January 10, 2011

Ron Terry, Principal
Geometrician Associates
PO Box 396
Hilo, HI 96721

RE: Proposed EA for Hokuloa Church
TMK (3) 6-9-002:007, 008, 009 and 010

Mr. Terry,

In a letter last spring (16 April 2010), you requested comments concerning the proposed additions of Lots 7, 8 and 10 to the existing Hokuloa Church Lot 9. I am a member of the South Kohala community and a member of the Hokuloa Church. Over the past 11 years, I have come to love the spirit of ohana represented in the Hokuloa Church and the Puako community. When the opportunity arose for the Hokuloa Church to acquire Lots 7, 8, and 10, I saw an opportunity to enhance the spiritual life and activities of the church while maintaining the spirit of the Puako community.

I am proud of the church's positive influence in the community. I believe we can address any environmental impacts while providing an area needed for church activities and parking. Please consider the following in any proposed EA concerning the "church lots:"

1. Lots 7 & 8
 - a. Clear debris from the lots to provide a fire safe area for the church and neighboring properties.
 - b. Keep existing old, large keawe trees for aerial cover and erosion barrier
 - c. If any smaller trees need to be removed, leave root system intact for erosion prevention.
 - d. Chip and spread the wood to provide erosion barrier
 - e. Replace existing flora, as needed, with indigenous trees/shrubs/plant/ground cover
 - f. Maintain, in general, the existing visual barrier between the road and the ocean providing a few "oceanview" spaces (i.e. from church activity area) but not large vistas.
 - g. Extending the existing low rock wall or add some other "line" to indicate that the lots are "one"
 - h. Provide additional church parking along the road front similar to what already exists in front of the church
 - i. Ensure that there is adequate ground cover to prevent wind and water erosion

- j. Provide access for the Ala Kahakai Coastal Trail through the property along the shoreline
 - k. Mauka of the trail, provide a fenced and “green” barrier to the property
 - l. Provide a small intimate space within the confines of the lots for outdoor church activities. This space may contain a pergola or similar structure but not a permanent walled building.
 - m. Provide gated/chained trail access to this activity space using natural materials (i.e. wood chips) from the road
 - n. Provide water access to the activity space
 - o. Where possible, maintain visual/privacy barrier between church neighbors and property
 - p. Make visual tie between the church and the properties. My understanding is that originally there was a school that was affiliated with the Hokuloa Church. Build upon that connection.
2. Lot 8
- a. Leave the area between the neighbor’s and the ocean generally intact. Perhaps continue the green barrier along the mauka side of the Ala Kahakai Coastal Trail to the “southerly” edge of Lot 8
 - b. Provide a trail(s) between the church and the activity space
3. Lot 10
- a. Extend existing low wall along front of church to the edge of the Whittaker easement to provide church parking
 - b. Maintain privacy barrier between church property and Whittaker lot (i.e. extend the existing tall wall to the edge of Lot 10 or provide green barrier
 - c. Make the existing Lot 9 landscaping “flow” with Lot 10 to show the “connection:

In summary, I believe the additional lots should flow into the existing Hokuloa Church lot making Lots 7, 8, 9, and 10 into one piece. The properties should maintain the natural, visual privacy and integrity of the neighbors’ properties while providing additional parking and activity spaces for the church. Just as already exists with the Hokuloa Church Lot 9, the entire property should be aesthetically pleasing, environmentally sound; it should garner pride from the community.

Thank you for allowing me to comment.



George Winchell

Cole Salera
PO Box 383435
Waikoloa, HI, 96738

Geometrician Associates, Inc
Ron Terry, Principal
PO Box 396
Hilo, HI 96721

Jan. 18, 2011

Subject: Lease of State Land, Hokuloa United Church of Christ
TMK(3rd) 6-9-002; 007, 008, 009, & 010

Dear Mr. Ron Terry,

I am an active member of Hokuloa UCC and have served on various church board committees and offices over the past 10 years. I am also an active member in the community having served as Vice President of Kawaihae Canoe Club for over 10 years and have been and is currently the head Judo coach at Kealakehe High School for 7 years. I have lived in South Kohala since 1979 and reside in Waikoloa. I lived in Puako from 1979 to 1988 while working at Lucy Henriques Medical Center in Waimea. I have worked in the construction industry since 1987 and currently have my own remodeling business. I am an active canoe paddler and surfer.

I am writing to support the presence and value of the Hokuloa Church in the Puako community and to support its protection from the creeping development along the Puako coast. I have found the people of the Hokuloa Church to be knowledgeable and serious about caring for the land identified as lots 7 & 8. This coastal area has been neglected for almost 80 years. To identify that land as scenic vista and to be used primarily for landscaping will be a significant benefit to all of Puako. The church use of the property will improve the shoreline, reduce the existing potential as a fire hazard and have a benign effect on the environment. The lots 7, 8, and 9 have had along historical connection to Hokuloa Church. The Puako school was located on Lot 7 and was the responsibility of the church for most of its existence Lot 8 was frequently used as

gathering place for activities at the church and school. This historical tie is significant and is appropriate that they be connected as a single historical site.

Lot 10, which is also considered by the EA, is a small parcel that can be used to set off a view plain of the historic church building. This particular parcel can serve as an additional landscaped buffer between the church building and the adjacent resort property which has poured six feet of concrete on the existing church lot to expand its driveway. Again, the landscaping of the parcel should have a benign effect on the environment.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Cole Salera", with a long horizontal flourish extending to the right.

Cole Salera

Paul Mills
73-1135 Ho'opai Rd.
Kailua, Kona, Hawaii 96740

January 26, 2011

Geometrician Associates, Inc.
Ron Terry, Principal
PO Box 396
Hilo, Hawaii 996721

Subject: Lease of State Land, Hokuloa United Church of Christ, TMK (3rd)
6-9-002: 007, 008, 009 & 010.

Dear Mr. Terry,

My name is Paul Mills . My family (my wife Tania, daughter Maia, son Kala'e) and I have been attending Hokuloa Church regularly for several years. We have found Hokuloa Church to be a very unique and special place of worship. The Pastor and members have provided a loving, spiritual environment for my family and I DO NOT want this taken away from us.

I strongly support the efforts of the State to create a Protection Policy to protect the church lot from further encroachment of church land and to protect the historic building that we hold very dear to our hearts from being overcome by development.

Sincerely,



Paul Mills
Friend and Attendee of Hokuloa United Church of Christ

Leonetta Mills
66-1313 Ahuli Circle
Kamuela, Hawaii 96743

January 26, 2011

Geometrician Associates, Inc.
Ron Terry, Principal
PO Box 396
Hilo, Hawaii 996721

Subject: Lease of State Land, Hokuloa United Church of Christ, TMK (3rd)
6-9-002: 007, 008, 009 & 010.

Dear Mr. Terry,

My name is Leonetta Mills and I am a member of Hokuloa United Church of Christ. I am writing this letter in support of the Church's Environmental Assessment.

The Reverend Lorenzo Lyons was a special person in the History of Christianity in Hawaii. He perpetuated the Hawaiian Culture by learning the Hawaiian Language and building fourteen churches of which Hokuloa is one. He came to build, not to take away, to be of service to the people and to leave us with a legacy of christian aloha and love. This legacy of aloha and love is perpetuated to all who visit and attend services at Hokuloa Church.

Hokuloa Church has served the Puako Community and the entire Island in many ways. Besides being a cultural treasurer, Hokuloa Church and its members have been responsible stewards of the land that the church sits on. The Church provides spiritual growth to many people, participates in many service and outreach programs and stands as a reminder that Christianity is still alive and active in Puako and Hawaii.

For all the reasons stated above I want Hokuloa Church to be protected from land grabs and inappropriate use. I support your efforts in preparing an Environmental Assessment for the church.

Sincerely,



Leonetta Mills
Hokuloa United Church of Christ Member

January 26, 2011

Geometrician Associates, Inc.
Ron Terry, Principal
PO Box 396
Hilo, HI 96721

Subject: Lease of State Land, Hokuloa UCC, TMK(3rd)69-002: 007, 008, 009 & 010

Dear Mr. Terry,

I am very familiar with the Puako area having lived there in the early 1990s. I have attended the church while I have been on the island. Currently, I reside in Waikoloa and attend Hokuloa UCC regularly.

Hokuloa is a very special place and its influence adds greatly to the unique character of Puako.

I completely support the direct lease for the Church to cover TMKs 6-9-002:007, 008, 009 and 010.

After hearing numerous spurious comments by some of the nearby property owners, I am appalled. The only conclusion I can draw is that their motivation is personal gain. The Hokuloa UCC appears to have an entirely different view. They want to enhance this overgrown fire hazard and preserve the land. Having observed the care the church has taken of its property, I know that is exactly what will happen.

I wish you success in the development of EA. Certainly it will squash all these red herrings brought forward by the opposition.

Sincerely,

David Caudle

A handwritten signature in black ink that reads "David Caudle". The signature is written in a cursive style with a long, sweeping underline.

edith kawai
attorney at law

65-1229 Opelo Rd., A-1
Kamuela, HI 96743
Telephone: 885-0788
Fax: 885-0952

January 26, 2010

Geometrician Associates, Inc.
Ron Terry, Principal
P O Box 396
Hilo, HI 96720

Re: Lease of State Land, Hokuloa United Church of Christ
TMK (3rd) 6-9-002:007, 008, 009 & 010

Dear Mr. Terry:

It is my understanding that Hokuloa United Church of Christ is conducting an environmental assessment (EA) in its effort to cancel the existing lease under which it currently operates with the State of Hawaii, Department of Land and Natural Resources, and obtain a direct lease for Church and Landscaping Purposes covering TMKs 6-9-002: 007, 008, and 009. Hokuloa's purpose is multifold: permit restoration, maintenance and operation the historical church as an active and living historical site that welcomes the public (Parcel 9); allow creation of an area that, through landscaping and clean-up, will protect the historical homogeneity of this special area. I strongly support Hokuloa's efforts.

My name is Edith Kawai. My family and I are members of the Imiola Congregational Church in Waimea. My grandparents began attending Imiola Church in the 1930's. We know that Hokuloa, like Imiola, is one of the fourteen churches that Rev. Lorenzo Lyons, "Makua Laiana," established in the 1830's and throughout his fifty-year tenure as kahu at Imiola.

I am kama`āina to the Waimea (Kamuela) and Puako areas. My grandfather's family, Kawai and Spencer, are long-time kama`āina of Waimea and Pu`ukapu.

When my sister and brother and I were nearing our teens, my grandmother and mother would take us to Hokuloa Church along with our youth group. Rev. Thomen was our kahu at the time. I recall that Mrs. `Ai`a and Hannah Lekelesa were members then.

For at least the past 20 years, Imiola Church has been involved with Hokuloa as a big sister church. Rev. John Hoover took up the task of helping Hokuloa to open her doors again and be the Breath of God in Puako. Each year, our church choir at Imiola Church shares Thanksgiving eve with our `ohana down at Hokuloa, enjoying the service, Rev. Hoover's uplifting messages, as well as kaukau and fellowship with our Hokuloa family.

Over the past two decades, Hokuloa has grown and developed in conservative, responsible and mindful ways. The land area is limited because the church property sits right off Puakō Beach Drive with the ocean at its back. Within this limited area, Hokuloa has upgraded the parking area of the main road and improved the low stone wall structure that serves as a safety buffer. In addition, the church membership has worked very hard to improve the building, strengthened its walls and ramparts since the earthquake of 2007, created and improved walkways, plantings, landscaping, trees, and shrubbery on the property. In point of fact, the membership of Hokuloa has taken up the duty of stewardship of this precious historic property and done all within their power over these twenty years to nurture the physical campus so that it is not only beautiful, but it is truly an active place of worship for the Puakō community.

Puakō's little community has grown exponentially in the past twenty years. The area around Hokuloa seems to be more cramped and crowded than the year before. Hokuloa's long record of land stewardship makes a strong case for the State to finally create a protection buffer to safeguard the church land from falling prey to further encroachment and to protect the historic building from being overcome by the grasping tendrils of development. Hokuloa, I know, will continue to actively steward all of the areas under its wings.

My family and I will continue to pray for Hokuloa, for its continuing physical and spiritual efforts in Puako.

Yours sincerely,



EDITH KAWAI
ATTORNEY AT LAW

Kamuela, HI 96743

January 29, 2011

Ron Terry, Principal
Geometrician Associates
PO Box 396
Hilo, HI 96721

RE: Proposed EA for Hokuloa Church
TMK (3) 6-9-002:007, 008, 009 and 010

Aloha e,

This letter is in response to your request for comments concerning the proposed additions of Lots 7, 8 and 10 to the existing Hokuloa Church Lot 9. I have been a member of the Hokuloa Church congregation for a number of years. There is a strong feeling of ohana in the Hokuloa Church and the Puako community. I believe combining these lots together offers us a chance to protect the historic integrity of our church. Lorenzo Lyons obtained these lands from the King in order to have a church and school built in the area for the native Hawaiians in Puako. The church and school were a central part of community life. Acquiring these lands brings all of the parcels back together again.

Consolidating these parcels will help to protect the lands from development and the church from further encroachment. The church will be a good steward of the land. As good stewards, the church may need to remove the dead undergrowth to help prevent brush fires. The church will need to keep the existing root systems in place to protect the soil and ocean from erosion. In removing some of the fire hazard debris and forest litter, the forest floor may become exposed in places. Where that happens, the land will need new ground cover and plantings.

I believe acquiring these lands gives the congregation an opportunity to enhance the spiritual life and activities of the Hokuloa Church. It will protect the church and church neighbors from future development. It will protect the church from further encroachment as pieces have been slivered from the church lot in the past. It will enhance the historical continuity of the land. It will continue the Ala Kahakai Trail through natural, undeveloped lands as it was originally.

The church has had a positive impact in the Puako community. I believe the Hokuloa Church has respect for the land and will strive to make the combined property an area of pride for the community. It is part of the church's kuleana to protect the land and ocean, to allow for the privacy for neighbors, and to maintain the natural beauty of the area.

Mahalo nui loa,



Keala Stevens

1-30-11

Geometrician Associates, LLC.
PO Box 396, Hawaii 96721

RE: Lease of State Land, Hokuloa United Church of Christ
TMK (3rd) 6-9-002:007, 008, 009, 010

To whom it may concern:

It has been brought to our attention by the Pastor of the Hokuloa Church that there is some consideration being given by the Hawaiian Dept. of Land and Natural Resources (DLNR) regarding the preservation and protection of the land which has been used for over 150 years as a place of worship and public gathering here on Puako Drive.

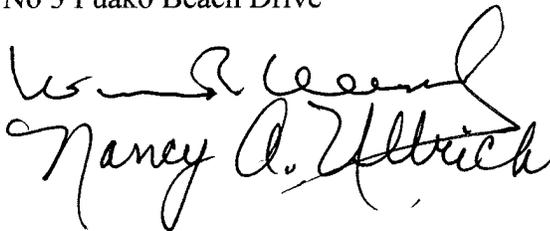
Having provided equipment to the State of Hawaii and worked in the Waimea area for over 60 years and owning property in Puako for over 35 years I have witnessed the commercialization and mansionisation of the area with apparent lack of involvement by the DLNR. We even had to fight for the right of public beach access.

We would like to see the DLNR step up to the plate regarding this matter and take an active part in preserving the historical and environmental value of this part of the State by establishing a direct lease for the land being used by the church as well as the adjacent lots 7 & 8. We believe that it is not only the right of the DLNR to get involved but actually their responsibility to conserve the natural and historical resources of the State of Hawaii.

We appreciate your careful consideration of this matter.

Respectfully,

William & Nancy Ullrich
No 3 Puako Beach Drive

A handwritten signature in black ink, appearing to read "Nancy A. Ullrich". The signature is written in a cursive style with a large, sweeping initial "N".

GEORGE W./MARGIE A. BAYBROOK
PO Box 437397
Kamuela, HI 96743
808 885.5533 – gme1@hawaiiintel.net

February 3, 2011

To Whom It May Concern:

[In regards the acquisition of adjacent lots for Hokuhoa Church]

I am a keiki O ka aina – born in Kona and raised in Waimea. I now live in Waimea and, as a minister quite often speak at the Hokuhoa Church.

As a teen-ager I remember visiting the church site a number of times. I also have visited the birthplace of Father Lyons twice in MA.

Also I am a member of Imiola Congregational Church, the church Makua Laiana pastored for many years.

I have two concerns:

1. That it is popular today to put down the early missionaries and the work they did and
2. That many of the church buildings they built have been destroyed, neglected or encroached upon.

I think it is commendable that the present Hokuhoa Church has taken such good care of the property and further I think that the original, adjacent lots should be restored to the church.

Time and again new residents move into these historic sites, [or next to them], and attempt to keep us who have known these church buildings from restoring them so that they can use the land for themselves.

I don't think that that is right when there is so much other available land. Sites like the Hokuhoa Church should be preserved for the kamaainas and the malihinis.

Sincerely yours,

The Rev. George W. Baybrook

Albert A. Nakaji
27-319 Kaieie Road
Papaikou, HI 96781
February 3, 2011

Geometrician Associates, Inc.
Ron Terry, Principal
PO Box 396
Hilo, Hawaii 96721

Subject: Lease of State Land, Hokuloa United Church of Christ, TMK (3rd) 6-9-002:
007, 008, 009 & 010

It is my understanding that an EA is being prepared for the subject lease application and that comments are being sought regarding various issues relating to the church and potential impacts. I offer these thoughts for your consideration.

First, I do not live in the Puako area, but used to visit during the summers when I was a youngster. My uncle had a parcel along the roadside and we'd spend about 3 or 4 days swimming and fishing along the coastline. It was the highlight of my summers. While there, we'd also visit with a relative, Bunji Fuji, who used to make charcoal, and who lived close to the Hokuloa Church. His son still lives in the Puako area.

My recollection is that when I used to visit, the Church was in disrepair and it is wonderful that it has been restored to some semblance of what it used to be. The Church has great historical value and I felt greatly honored to be able to have had our wedding there five years ago. It is such a beautiful setting.

It troubles me that over the years, the property has gradually gotten smaller. I do not understand why this has happened. Places of historical importance should be preserved, rather than brushed aside as just "old places". It is proper that an effort is being made to now increase the area for the Church, as that will help the Church to provide even greater benefits and services than it is presently able to and, perhaps make it more of what the founder, Lorenzo Lyons, originally had in mind.

Geometrician Associates, Inc.

Ron Terry, Principal

February 2, 2011

Page 2

It seems there is concern that the Church will clear-cut from the Puako Beach Road to the ocean. The information I have been given makes it clear that this is not the case, and it is certainly not in keeping with the careful stewardship that the Church has demonstrated over the many years. To the contrary, the Church has consistently tried to remove alien species and to replace them (when and if necessary) with native plants, consistent with what one would envision a "Hawaiian" church to do. The kiawe trees that are abundantly found in the area are really inappropriate since they are not native, and the thorny limbs pose a hazard when one gets too close to the trees or when branches fall on the ground. Many a time, when we were youngsters, would we get "flat tires" from the thorns when they pierced the soles and sides of our shoes and other footwear. It was not a pleasant experience. Neither was it fun to encounter wild honey bees that took up residence in some of those trees. I can think of no description other than a "hazardous situation" when trying to escape bees through a kiawe "forest" that had broken branches scattered all over the ground. Certainly, the combination of kiawe trees, honey bees, and people (especially young children who don't know any better) does not make a good/safe situation. I think my relative had the right idea by making charcoal out of those trees.

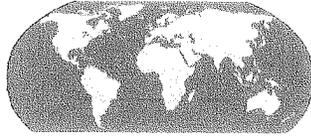
I've also heard speculation that the shoreline kiawe trees are critical to the marine environment, and that without them the reef would die and all other marine life would disappear. It totally befuddles me how someone could even think that to be the case. In a lifetime of shoreline fishing, the total amount of shoreline I've seen on this island with kiawe trees is but a few percent, yet those other areas thrive with marine life. I'd really like to see any valid science behind such nonsense. Further, with regard to kiawe trees being necessary for the prevention of coastal erosion, I know of no place that uses them for that purpose, and contrary to what some may suggest, environmental protection and management is not the same as "letting nature take its course". Protection and management requires informed, reasoned, decisions and actions. Were this not the case, there would not be an Environmental Protection Agency on the Federal level, and on the State level we would not have HRS Ch. 343 and the Environmental Health

Geometrician Associates, Inc.
Ron Terry, Principal
February 2, 2011
Page 3

Administration branch (DoH), and the myriad of other government and not-for-profit environment related groups, boards, and commissions.

As you can see, I do not have any concerns relating to the lease (or even sale) of State lands to the Church (except that it's long overdue). I am in total support of the application and encourage this entire matter to be dealt with as soon as possible. The intent is a good one, there has been historical precedence for the use, and the Applicant has demonstrated good faith efforts in doing all necessary to not only maintain the property, but to always move towards the highest and best use, while not intruding upon neighboring properties. I am confident that the Church will be faithful in meeting the highest applicable standards, and it should be incumbent upon all neighboring property owners and residents to be held to similarly high standards as well, so that not only the Church, but the entire area, will exist as the wonderful place it once was.

Albert A. Nakaji



A Human Teachers Association of North America

MCA Services (501 C 3)

Dr. Michael A. Colson

59-1113 Kalama Way

Kamuela, Hawaii 96743

(808) 315-1532

mike@mikecolson.com

Ron Terry
Principal
Geometrician Associates, Inc.
PO Box 396
Hilo, Hawaii 98721

5 Feb 2011

Subj: Hokuloa Church at Puako Environmental Assessment Inputs

My name is Dr. Michael A. Colson, a board member of Kona Beth Shalom synagogue and frequent visitor and participant at the Hokuloa Church. My family attends the facility regularly and remain ardent church members. I am active in the historical preservation of our congregation in Kona and am familiar with the laws and regulations regarding both historical building preservation – and – the often self-serving activities of those who would destroy our historical heritage for profit.

The preservation of both the historical claims of and the actual operation/mission of the Hokuloa Church facility must be paramount given the following reasons.

1. This church as an operating venture has been in consistent usage since King Kamehemeha granted the site for use as a church and school. This is sacrosanct in an era that has provided ‘overuse opportunity’ to real estate speculators and ‘new’ private resort owners whose sole aim is profit without recourse to those values which bind our Hawaiian society together.
2. Private owners in Lots 11 and 12 have used the historical value of Hokuloa Church in advertising their places, yet have been vociferous in complaining to Hokuloa’s pastor – John Hoover – about boundary and ‘viability’ concerns in a most unfriendly manner. They have further complicated the budget of the church’s operation by regular requests for legal and other remedies to their ill-conceived plan to close down Hokuloa permanently. This for their own gain with no regard for the community of Puako.
3. That boundary issues have been used to create the above mentioned peace of the Hokuloa community is part of the historical battle waged worldwide. New entities that have little regard for historical or culture precedents often use the courts to affect their will. In Hawaii, we are used to this. This then is the time to direct the public’s attention to the misdeeds of Hokuloa neighbors in Lots 11 and 12, and to re-establish Hawaii Counties right to enforce long held and traditionally granted accessions of historical value; i.e. Hokuloa Church.

4. Integrity and functionality of the church, in this person's opinion, are only threatened by those very few who see Hokuloa's historical position as an impediment to their own personal gain. The church functions fine and successfully completes its mandate at all times. At issue is the meddling and litigious behavior of two area owner/residents of means.

I strongly recommend the issuance of a Direct Lease – now held conditionally – and the restoration, maintenance, and operation of the historical church as an active and living site open to public and related purposes – with – the proposed subdivision of parcels 9 and 10 to accommodate the natural beauty via any restoration process.

Further, it should be part of this written record that Hokuloa, in its attempt to remain neighborly tin spite of the self-interested activities of owners of Lots 11 and 12, does have limits. If necessary, I am prepared to organize a public show of support using local Hawaiian Homeland associations and Hawaiian historical groups. Of course, this would be unnecessary if your proposed boundary adjustment(s), subdivisions, and renovations meet with success.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Colson', with a long horizontal flourish extending to the right.

Dr. Michael A. Colson
Clinical Director
MCA Services

John P. Keppeler
2822 Laola Place
Honolulu, Hawaii
96813-1040

808.864-5410
jackepeler@hawaii.rr.com

February 18, 2011

Geometrician Associates, LLC
P.O. Box 396,
Hilo, Hawaii 96721

Aloha mai e Ron Terry, Principal,

Enclosed you will find my letter regarding the EA of the land lease to Hokuloa Church. Puako, Hawaii. My position is clear and in favor of the lease.

Mahalo to you for giving me with this opportunity to express my feelings on the issue.

Me ka pono, na John P. Keppeler

A handwritten signature in black ink that reads "John P. Keppeler". The signature is written in a cursive style with a large, looping initial "J".

John P. Keppeler
2822 Laola Place
Honolulu, Hawaii

Aloha mai,

Hokuloa Church, the missionary era church in Puako, is an important historical reminder of Hawaii's rich past. The present-day church's continued service to this Hawaiian fishing village is very admirable. The area has evolved into a very different way of life for its current residents, but they still have similar needs.

The Kingdom granted churches, like this one with their adjacent schoolhouses, land awards to encourage spiritual and educational facilities and programs to be provided throughout the countryside. Puako was an important village in the early 1800's.

The EA (Environmental Assessment) is a requirement of the current government making good on the long-term land award by King Kamehameha III. The building and grounds demonstrate the 173 years of that kindly land stewardship that well meets the current standards.

The addition of the parcels 7 & 8 to 9 in the RP consolidate again the church and school lot grant of "so long ago" in this conveyance. The additional benefits for the contemporary public will be the continued shoreline access and the supervised upkeep of this common beach access point.

There is no meritorious reason for not allowing the long-term lease to be granted by the Land Board to the Congregation of Hokuloa Church. The continuation of the mission benefits the community.

My purpose of commenting on this EA is that the headlong economic development of our resort shorelines needs to occasionally be brought to mind of the grand Hawaiian past. Sacred spaces and traditional practices and mores must be preserved so as not to lose the unique flavor of our very special place on surface of this world.

My name is John P. Keppeler and I have been a resident of Hawaii for all of my life.

Me ka pono,

A handwritten signature in black ink that reads "John P. Keppeler". The signature is written in a cursive style with a large, sweeping initial "J".

401 W. Puainako Street
Hilo, HI 96720

February 22, 2011

Mr. Ron Terry, Principal
Geometrician Associates, Inc.
PO Box 396
Hilo, HI 96721

Dear Mr. Terry:

I am writing to you as a concerned and interested member of the United Church of Christ regarding the property in question on which the historic Hokuhoa Church is located.

I served for many years in various capacities on the Board of Directors of the Hawaii Conference, United Church of Christ and also on the Board of Trustees of the Hawaii Conference Foundation. I am familiar with the churches of the Hawaii Conference. Moreover, my home being on the island of Hawaii, I know the history of the Hokuhoa Church and have worshipped there as well.

The Hokuhoa Church, since the early days of the Reverend Lorenzo Lyons, has continued to be an important and vital link to the Puako and neighboring communities. To enable this historic church to minister and provide spiritual leadership to the residents and visitors who come annually as well as to the wider community, it is imperative that the direct and long-term lease be issued on the property.

I thank you for all that you are doing to facilitate this important project and I look forward to the finalization of the EA process. I would certainly appreciate receiving a copy of the EA upon completion of the work.

Mahalo nui loa.

A handwritten signature in cursive script, reading "Janet Fujioka". The signature is written in black ink and is positioned above the printed name.

Janet H. Fujioka

**Geometrician Associates, Inc.
PO Box 396
Hilo, Hawaii 96721**

Dear Mr. Terry,

I am writing in response to your preparation of an Environmental Assessment (EA) to comply with state law, supporting a lease of state land as a future arrangement with the Hokuloa historic church at Puako in the South Kohala district of Hawaii.

My interest and encouragement for this future project dates back to the time when the historic "plantation" church was being readied for weekly worship services, and the United Church of Christ sent Pastor John P. Hoover for this preparation. At the time, I attended the Imiola United Church of Christ, Kamuela ("Waimea") Hawaii, and was living at Waikoloa Village, Waikoloa, Hawaii, in the early 80's. With friends, I was at meetings when Pastor John P. Hoover outlined the plans for the restored church. At such time as the church opened, my Waikoloa Village friends - and some other loyal Imiola members - attended services. My heart is with the future of Hokuloa and the appropriate care of its adjoining parcels, bringing to order the land which needs care and supervision.

Though I have returned to live in my home in Anchorage, with the passing of friends in Hawaii and changes in my personal life, I still look towards being a part of Hokuloa in such small ways as I now can, including when I am in Hawaii. I bring my adult family as it is possible.

Thank you for proceeding with this forwardlooking procedure with your PA. Sincerely,

**Della Colver Barry, 2123 Hillcrest Place, Anchorage,
Alaska 99503-1757, ph. 9097-279-1306**

2LT Luke M. Colson
5211 5th Ave NE
Seattle, WA 98105
February 3, 2011

Ron Terry
Principal
Geometrician Associates, Inc.
PO Box 396
Hilo, Hawaii 98721

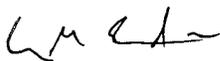
Dear whomever this may concern:

I name is Luke Colson; I am a US Army Lieutenant and also a patron of The Hokuloa Church in Puako. I am writing to express my concern about the developing dispute regarding the lot 9 and adjacent lots. I understand the residents of neighboring lots oppose The Hokuloa Church's move to settle long understood boundaries. Forfeiture of these disingenuous claims would promise a continuation of the church's legacy of social stewardship and property maintenance of the area in the best interest of the community.

In addition please consider the following: The Hokuloa Church has, since its founding by Rev. Lorenzo Lyons on land granted by King Kamehameha III, has for 80+ years fostered the most sacred tenets of Hawaiian community and social well being. I've experienced this first hand as a patron of the church and have witnesses firstly the secular and non-secular nature of The Hokuloa Church's activities. From Sunday school classes to food drives feeding hungry families during Thanksgiving the church strives at every chance to make a difference. These interests, then, also include the historic maintenance of property in and around the church. A duty not taken lightly and one all members wish to execute with the utmost diligence.

It would seem that there are those that disagree with the church's position. It is my keen concern that the best interests of the entire community and the historical facts be considered and that what humble stake The Hokuloa Church does retain be supported fully.

Sincerely,



Luke M. Colson
2st LT, Engineer

"essayons"

Dear Mr. Terry,

I am a 35 year resident of Waialea Bay, Lalamilo, Hawaii. My home is about a mile north of Hokuloa Church. I used to be a member of Hokuloa Church and served on its pastoral council. In recent years I joined the Catholic Church and attend the Ascension Church in Puako.

In response to you letter of April 16, 2010 regarding the lease and plans for the unimproved lots next to the Hokuloa Church I have the following input.

1. I fully support the lease to the Hawaii Conference Foundation and the modification of lot lines to accommodate the County roadway.
2. Hokuloa Church is an important anchor of the Puako community. In addition to filling the spiritual needs of our people here, it also has been made available to the general public as a meeting place.
3. The congregation at Hokuloa Church has continued to protect the physical integrity of the church in spite of its age. The landscaping has been improved tremendously in the last year or two. The church should be commended for this good work.
4. The church and its grounds offer both residents and visitors a beautiful and charming vista upon entering the community of Puako.
5. The subject lots adjacent to the church are historically connected to the church and that attachment should be enhanced and dignified. The fallen trees should be removed along with some of the standing non-native trees. The uncontrolled growth is now a severe fire hazard.
6. In my opinion, once the lots are cleaned up it might make sense to fence them to control access, especially at night.
7. I'm confident that the Hokuloa congregation can be entrusted with the proper upkeep and maintenance of the lots and decisions regarding improvements should be left to the church members.
8. Last but not least, Hokuloa Church has considerable historical significance having been originally built by Rev. Lorenzo Lyons, beloved "Makua Laiana" to his Hawaiian followers.

I am very grateful for the generosity of the Hokuloa congregation and pastor. Hokuloa Church is a sacred place and I am always uplifted when I spend time there.

Mahalo and Aloha,

George H. Robertson

P.O. Box 44490
Kamuela Hawaii 96743

tel: 808-882-7598

Department of Land and Natural Resources

As a resident of Puako for the past 10 years and a visitor to the area for a decade before that, I've witnessed many upgrades to the Hokuloa Church. The most recent improvements to the church and its grounds have been an upgrade to our entire community.

The level of commitment the Hokuloa Church has made to continue to be a good neighbor and citizen makes them the perfect steward for the coastline lots TMK (3rd) 6-9-002: 007, 008, 009, & 010. These lots have been vacant and untended for many years, however with a good plan I feel the Hokuloa Church can turn these lots into something viable for the entire community. Also, their dedication to maintaining the historic integrity of the church and surroundings will educate their decisions in matters of the coastline property.

It is important that the issues of Hawaiian burials, erosion and public access be addressed and once these issues are resolved then the issuance of a direct lease for the church and landscaping purposes should be approved.

Sincerely,
George B. Fry III
69-1917 Puako Beach Drive
Kamuela, HI 96743

Aloha Ron,

As a member of the Hokuloa United Church of Christ, we have read with great interest your April 16, 2010 Site Plan and general information. We would like to voice our support in that the coastline lots next to the church have been so neglected for many many years. This neglect is not an acceptable choice for the environmental stewardship of our coastline. We are truly blessed that the church has stepped forward to assume this huge task, and we appreciate your partnership in this endeavor.

Sincerely,

Bob and Cathy Barnard

Geometrician Associates, Inc.
Ron Terry, Principal
PO Box 396
Hilo, Hawaii 96721

Dear Mr. Terry :

Mrs. Branson and I are property owners in Wailaloa and members of the Hokuloa church. We reside in Kona two months a year and have chosen to make Hokuloa our home church. We love the 19th Century Hawaii flavor of the building and property. This was such an important time in the history of Hawaii and the church.

Please do what you can to preserve the integrity of the lovely setting and structure. Is it possible the land could be expanded to its original historic dementions? How best can we guarantee future preservation of this piece of cultural and church history?

Yours truly,

Phil and Sue Branson
69-1010 Keana Place #G 304
Waikoloa, HI 96738-5733

Michael O'Toole
95 Puako Bch. Dr.
Kamuela, HI 96743

Geometrician Associates Inc.
Ron Terry, Principal
PO Box 396
Hilo, HI 96721

Subject: Lease of State Land, Hokuloa United Church of Christ
TMK (3rd) 6 – 9 – 002:007, 008, 009, 010

My name is Michael O'Toole. My wife Diane and I have been residents of the Puako community for over 17 years. I have been in the contracting business for over 25 years, the past 17 in the Puako area. We own property, and manage other properties here. I am also a board member of the Puako Community Association.

My children and I regularly attend Hokuloa United Church of Christ and I have come to know the leaders and members of the church. Having lived in this community for so long, I also have longtime relationships with most of the residents that are in opposition to the lease to the church.

As you can see, I have strong ties and a history with this community. I have watched its ebb and flow, and change through the years. It seems human nature to want Puako to stay the same. There have been many changes I objected to originally, but as time has proven, they were changes that were for the best. Usually I was objecting to change itself.

One example that comes to mind are the restrooms and parking lot built at Wailea Bay or beach 69 as it is known locally. I remember many who objected and were skeptical, myself included. That entire beach was unmanaged and open. There was something beautiful about that, but the reality was frequent unauthorized campers, cars, parties, trash and waste. Similar to what is happening with these parcels of land in question. Now, after a couple of years, I can't think of anyone who wishes Wailea Bay would go back to how it was. I think the same will happen here.

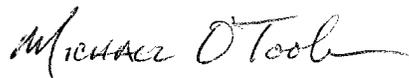
There are many reasons to grant this lease to the church. The church is currently surrounded on two sides by vacation rental, income producing properties. In addition, the Sullivan Estate is also nearby. While that is a beautiful home and property, in the 17 years I have been here, it has always been an income producing property, specializing in corporate functions and retreats, high-end clientele, and also used for movies and television. All of the churches surrounding neighbors are running businesses in a residential community. It is no wonder they might find a multiple of reasons to object to any change that could affect their bottom line.

The historic church is one of the first things you see as you enter our community. Granting more land to the church would help ensure it remains protected and a living part of this community's history and Hawaii's history. This additional land granted to the church would stop further encroachment and crowding of the church by the surrounding high traffic, income properties. In some ways this additional land would also help restore some of the "feeling" of the area around the church when it was first built.

The church, for over 25 years, has demonstrated it is willing to make the investment, by restoring and maintaining the building and property it currently has, and I am confident that will continue and extend itself to the care of any additional property that might be granted to the church.

There are numerous other reasons I can think of in favor of this lease to the church. There are a few reasons I can think of to leave this property as is, especially when the church is willing to pay for its care and maintenance.

Sincerely,



Geometrician Associates, Inc.
Ron Terry, Principal,
PO Box 396
Hilo, Hawaii 96721

RE: Lease of State Land, Hokuloa United Church of Christ, TMK (3rd) 6-9-002,008,009 &010

Dear Mr. Terry,

My husband and I visit the Big Island three times a year and have done so for many years. We stay on the property at Mauna Lani and attend the Hokuloa United Church of Christ in Puako each Sunday while we are there.

To us, as to the rest of the regular congregation and those who visit, it is a very important historic monument. It honours times past and is a valuable glimpse into early life on the Big Island. It is now a beautiful and well maintained building that stands at the entrance to the little village of Puako.

The pastor, John Hoover, together with members of the congregation and many others cherish the building and the land upon which it was built. They are excellent stewards of this historic property and are now striving to protect the church from further encroachment of the property.

Changing the boundaries of the church lot will preserve this very important historic site from present and future land claims for private use. The whole area at the entrance to Puako will be enhanced by the improved landscape and the preservation of this site area and the church.

I know the Hokuloa church will be good stewards of the building and the land – something that will make future generations of Hawaiians proud to claim as a meaningful and beautiful Heritage Site.

Sincerely,

Judy Hager
2706 West 50th Avenue,
Vancouver, B.C.
V6P 1B7



HALE PUAKO

March 6, 2011

Mr. Ron Terry
Geometrician Associates, LLC
P.O. Box 396
Hilo HI 96721

Dear Mr. Terry,

We requested Lots 9 and 11 surveyed by Engineers Surveyors Hawaii, Inc in January, 2011 to resolve some matters of ours and possibly assist you in the Environmental Assessment of Hoku Loa Church's development plan. Map A completed for us 2/14/11 also includes portions of Lots 8 and 12. Map B which was included in your 4/16/10 mailing is dated prior to 6/8/79 per records in our home. It is apparent from the maps that there has been substantial shoreline erosion and Lot 8 no longer wraps around Lot 11.

The accompanying photos provide further evidence of that erosion. And #3 illustrates the vegetation along the shoreline of Lot 8 that deters further erosion and provides shade and still waters for the fisheries in the water below.

#1: Point A: Standing at (A) facing North looking toward Puako Bay at mean tide.

#2: Point B: The yellowish spot is the 1.5" pipe set in concrete at the northwesterly corner of Lot 11 (B). It is approximately 2' above water level at mean tide.

#5: Looking from (B) to (A): The picture is taken standing on 1.5" pipe (B) looking at (A) 139.33' away in the black area in the kiawe. The picture provides evidence that the land between (A) and (B) which appeared as Lot 8 in Map B has washed away. The kiawe to the left of the black area creates the shoreline of Lot 8 mentioned above.

#4: Point C: A picture of the stake at the 1.5" pipe marking (C) at the northeasterly corner of Lot 11. The white area on the right of the picture is the corner of the wall on Lot 12 (identified as "cm wall" on the Plan).

#5: From Point C: Looking toward the Bay from (C) shows the "shoreline" and "top rock bank" identified on Map A. The picture shows that Lot 8 no longer wraps around Lot 11.

#6: Looking from (C) to (B): Standing at (C) looking toward (B) 139.33' away.

Joseph F. and Helen D. Pickering
69 -1598 (2A) Puako Beach Drive, Kamuela HI 96743
650.704.7132

000096

HALE PUAKO

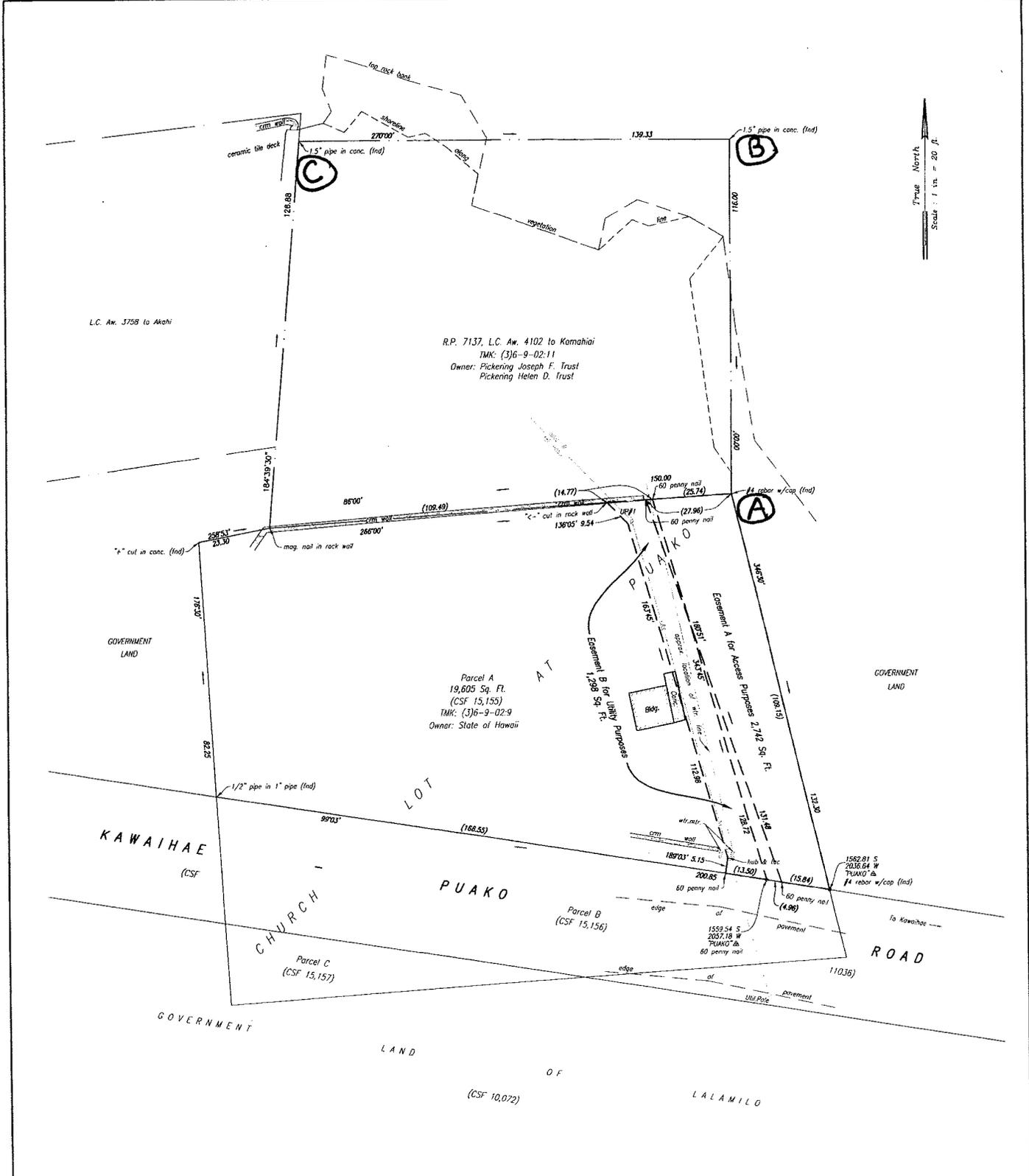
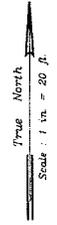
We hope this information is useful in your environmental assessment of Hoku Loa Church's development plan. Please contact us with any questions

Sincerely,


Joseph F. Pickering

**Joseph F. and Helen D. Pickering
69 -1598 (2A) Puako Beach Drive, Kamuela HI 96743
650.704.7132**

000097



L.C. Aw. 3758 to Akahi

R.P. 7137, L.C. Aw. 4102 to Kamahai
 TMK: (3)6-9-02-11
 Owner: Pickering Joseph F. Trust
 Pickering Helen D. Trust

Parcel A
 19,605 Sq. Ft.
 (CSF 15,155)
 TMK: (3)6-9-02-9
 Owner: State of Hawaii

Parcel B
 (CSF 15,156)

Parcel C
 (CSF 15,157)

KAWAIHAE
 (CSF)

PUAKO

GOVERNMENT LAND

LAND OF
 (CSF 10,072)

LALAMILO

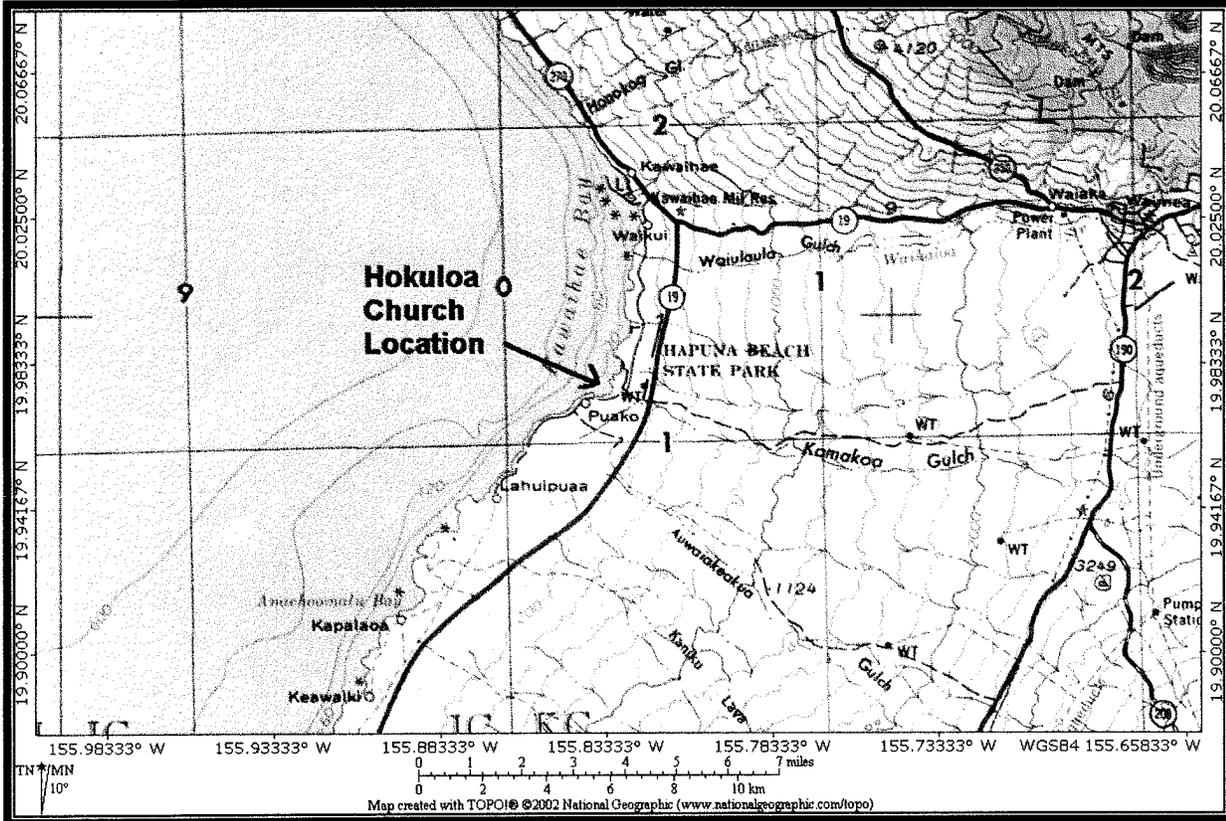


This work was prepared by me or under my direct supervision.
 Engineers Surveyors Hawaii, Inc.
 Miles S. Horie, Reg. 4/30/12
 Licensed Professional Land Surveyor
 Certificate Number 10007

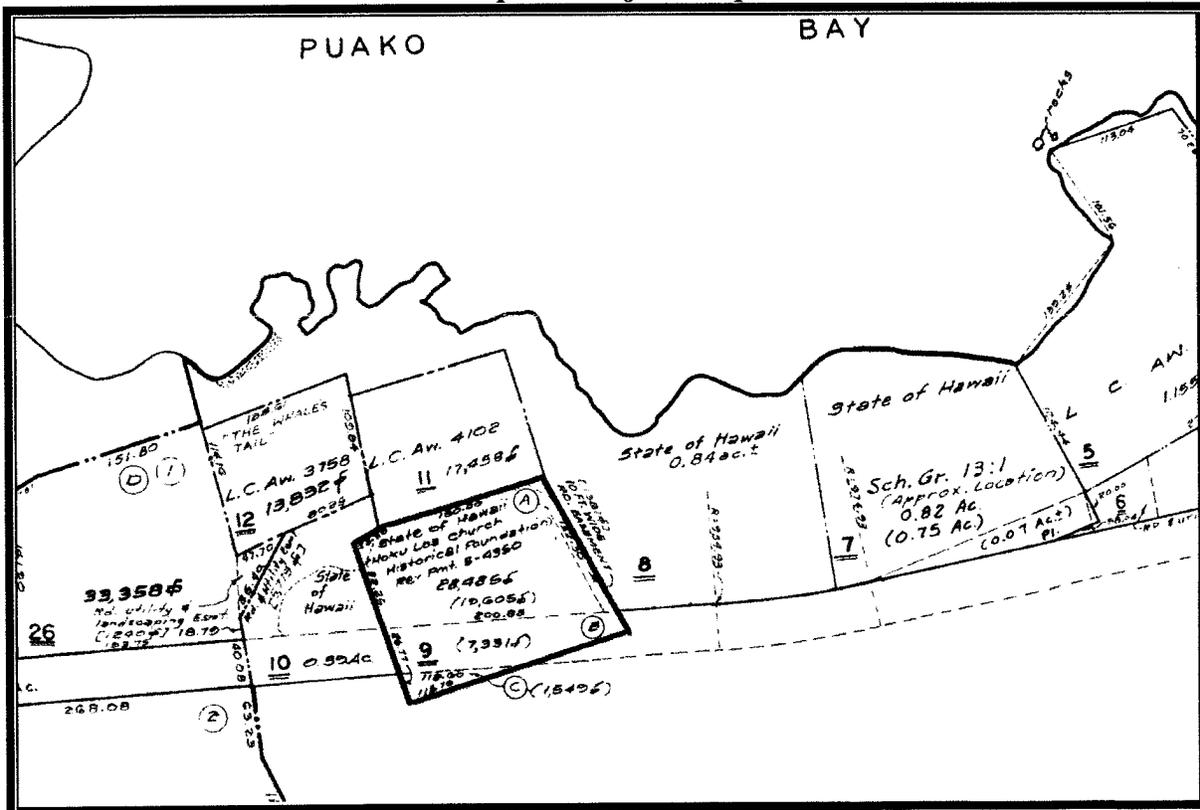
Plan Showing
 Royal Patent 7137
 Land Commission Award 4102 to Kamahai
 and Church Lot at Puako
 Parcel A (C.S.F. No. 15,155)
 at Puako, Lalamilo, Waimea
 South Kohala, Island of Hawaii, Hawaii
 T.M.K.: (3)6-9-02: parcel 11 & parcel 9
 Client: Joseph Pickering

MAP B

Location Map



Tax Map for Subject Properties



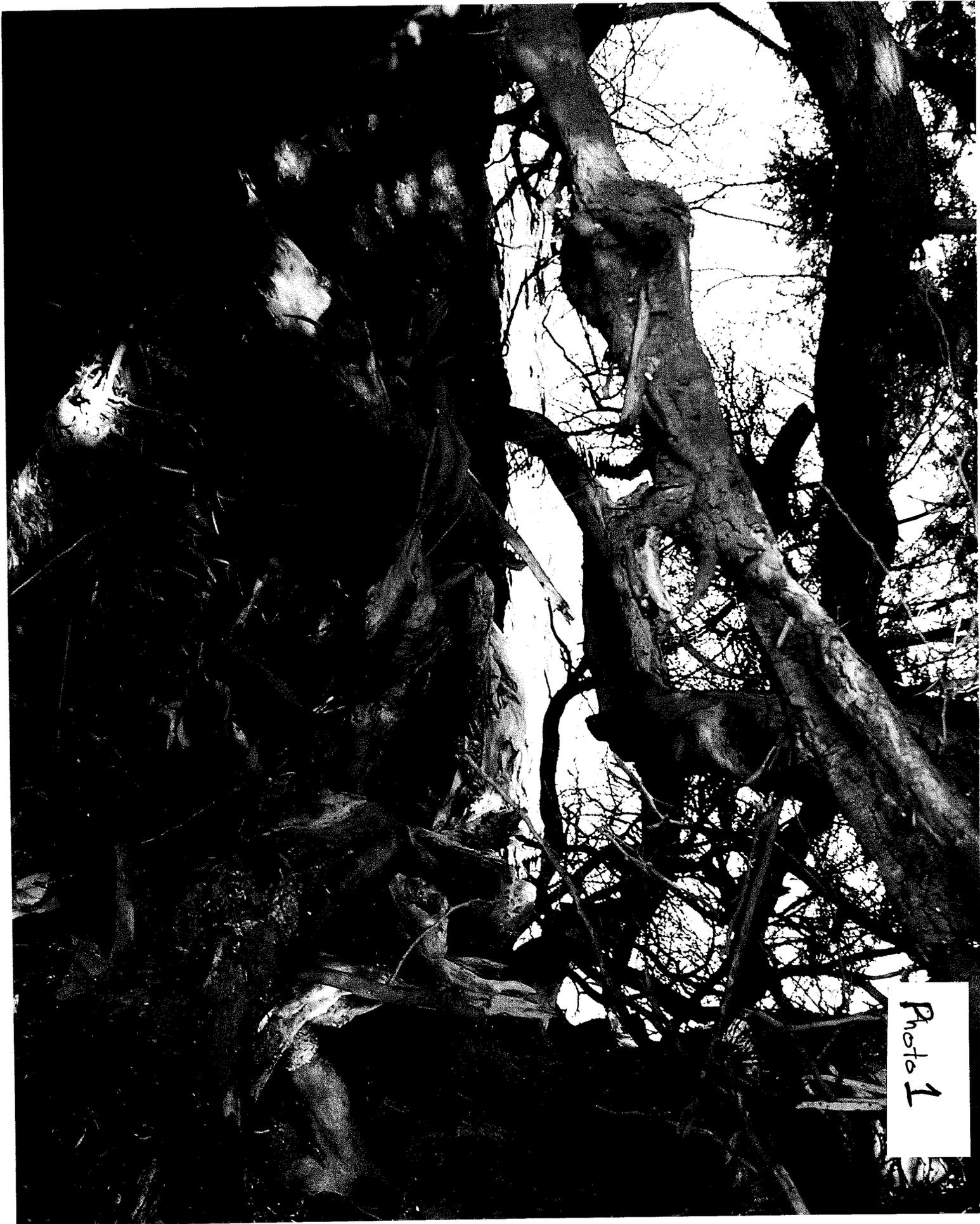


Photo 1

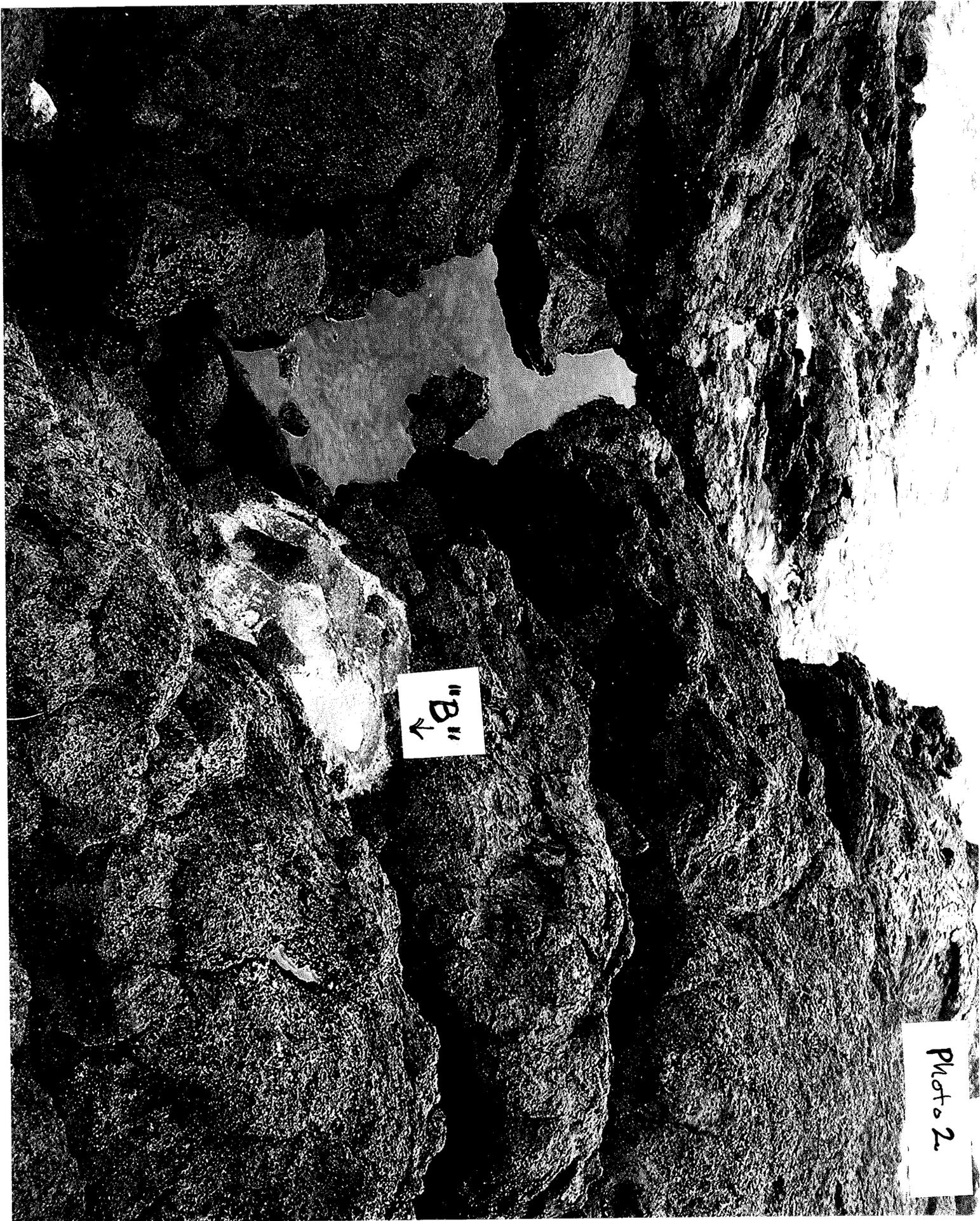


Photo 2.



Looking from
"B" to "A"

"A"
↑

Photo 3

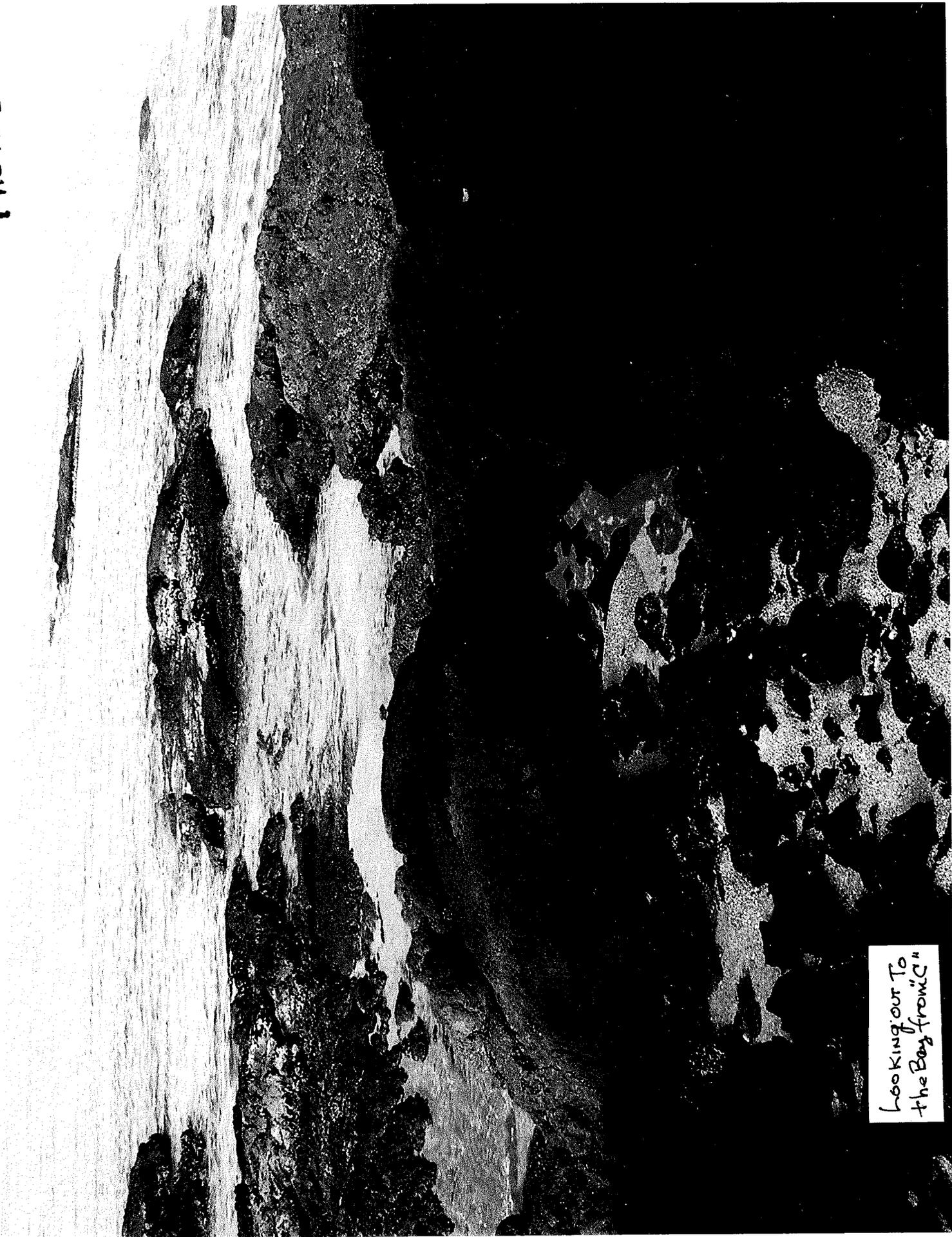


C →

WAX LOT - 840

Photo 4

Photo 5



Looking out To
the Bay from "C"



Looking from
"C" to "B"

"B"
←

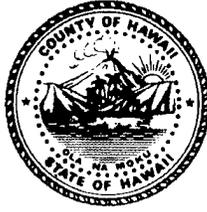
Photo 6

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**ENVIRONMENTAL ASSESSMENT
LEASE OF STATE LAND
HOKULOA UNITED CHURCH OF CHRIST**

**Appendix 1b
Comments to Draft EA and Responses**

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William P. Kenoi
Mayor

Warren H. W. Lee
Director

William T. Takaba
Managing Director

Brandon A. K. Gonzalez
Deputy Director

County of Hawai'i
DEPARTMENT OF PUBLIC WORKS
Aupuni Center
101 Pauahi Street, Suite 7 · Hilo, Hawai'i 96720-4224
(808) 961-8321 · Fax (808) 961-8630
www.co.hawaii.hi.us

June 22, 2011

Ron Terry
Geometrician Associates
P.O. Box 396
Hilo, HI 96721

Subject: Draft Environmental Assessment
Lease of State Land, Hokuhoa United Church of Christ
TMK: (3) 6-9-002: 007, 008, 009, 010

We reviewed the subject document and have the following comments:

BUILDING

Buildings shall conform to all requirements of code and statutes pertaining to building construction.

DRAINAGE

1. All development generated runoff shall be disposed of on-site and shall not be directed toward any adjacent properties. Existing drainage patterns with respect to adjacent properties shall be maintained.
2. The applicant shall be informed that if they include drywells in the subject development, an Underground Injection Control (UIC) permit may be required from the Department of Health, State of Hawaii.
3. Flood Zones "VE and AE", affect the subject parcels as designated by the Flood Insurance Rate Map (FIRM), dated September 16, 1988. Improvements will be subject to the requirements of Chapter 27 – Flood Plain Management, of the Hawaii County Code. New encroachments are not allowed to increase the base flood elevation during the base flood event. Flood carrying capacity shall be maintained.

EARTHWORK

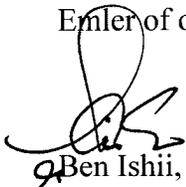
1. All earthwork and grading shall conform to Chapter 10, Erosion and Sediment Control, of the Hawaii County Code.

2. The applicant shall comply with Chapter 11-55, Water Pollution Control, Hawaii Administrative Rules, Department of Health, which requires an NPDES permit for certain construction activity.

ROADWAYS

1. Puako Beach Road, fronting the subject property, is a County road. It has an approximate 18-20 ft. wide pavement (in fair to good condition), with an inconsistent gravel and asphalt stabilized shoulder all within a 40-ft. right-of-way.
2. Access to Puako Beach Road, including the provision of adequate sight distances, shall meet with the approval of the Department of Public Works. All driveway connections shall conform to Chapter 22, Streets and Sidewalks, of the Hawaii County Code and County standard details R-37 and R-38. All sight distances shall meet AASHTO Standards.
3. In the interests of pedestrian and bicyclist safety, the applicant should provide a 5-foot wide paved shoulder along the subject property frontage, meeting with the approval of the Department of Public Works. Any parking along the street shall be parallel parking in the direction of traffic, outside of the shoulder, allowing space for pedestrian use outside of the vehicular traveled way. A minimum 5-foot wide future road widening setback to the proposed wall should be provided and noted on any site plans.
4. Streetlights, signs and markings shall be installed when required by and meeting with the approval of the Department of Public Works, Traffic Division.
5. The applicant should provide adequate off-street parking, and a turnaround before entering the County road right-of-way.
6. The applicant shall remove any encroachments or obstructions within the County right-of-way.
7. Any proposed utility poles in the road right-of-way shall be installed as shown on DPW Standard Detail R-35 (Revised). The applicant shall provide any necessary easements for installation of such utilities.

Should there be any questions concerning this matter, please feel free to contact Kiran Emler of our Kona Engineering Division office at 327-3530.



Ben Ishii, Division Chief
Engineering Division

KE

copy: ENG-HILO/KONA
Planning Director

geometrician

ASSOCIATES, LLC
integrating geographic science and planning

phone: (808) 969-7090 PO Box 396 Hilo Hawaii 96721 rterry@hawaii.rr.com

August 5, 2011

Ben Ishii, Engineering Division Chief
Hawai'i County Department of Public Works
101 Pauahi Street, Suite 7
Hilo HI 96720

Dear Mr. Ishii:

Subject: Comment to Draft Environmental Assessment for Lease of State Land, Hukuloa United Church of Christ, TMK (3rd) 6-9-002: 007, 008, 009 & 010, Puakō, Island of Hawai'i

Thank you for the comment letter dated June 22, 2011, on the Draft EA. In answer to your specific comments:

- 1: Building must conform to codes. *All applicable codes will be adhered to.*
- 2: Runoff must be disposed of onsite, and if drywells are part of design, a UIC permit is necessary. *No new impermeable surfaces are planned and we do not foresee a UIC permit need.*
- 3: Project site is within floodplain and improvements must conform with Chapter 27. *The storage shed has been removed from the plan. At the appropriate point in project design, the Church will submit a Site Plan and architectural drawings for the 4-foot hogwire fence, the 6-foot lava wall near the Church, and the low lava wall fronting Parcels 7 and 8 for Chapter 27DPW review. If DPW determines that they cannot be permitted as designed because of flood considerations, these features can be appropriately modified or removed from the project plan.*
- 4: Earthwork must conform with Chapter 10, Erosion and Sedimentation Control. *No earthwork is planned.*
- 5: Applicant shall comply with DOH rules and obtain an NPDES if necessary. *The project will conform to DOH rules and no ground disturbance triggering the need for an NPDES is planned.*
- 6: Driveway connections must conform with Chapter 22, Streets and Sidewalks. *No driveways are needed, because there will be no parking on the lots. The Church does plan two access/unpaved entries for very occasional maintenance purposes. These will be gated and there will be no parking.*

7: Applicant should provide a 5-foot wide paved shoulder meeting with DPW approval. Any parking must be parallel. A 5-foot road widening setback must be provided and noted on site plans. *The proposed action does not expand Church activities and basically just relocates them from the Church lawn and gazebo to Parcels 7 and 8. Given this, and the lack of any type of improvements other than landscaping, the Church does not understand the request to design and construct a 5-foot paved shoulder. The need for such a facility is triggered not by the minor relocation of some Church uses from the next-door property, but rather by existing pedestrian and bicycle use of the road. The expense of providing this shoulder would be a burden that is out of proportion to the scale of the proposed landscaping action and that bears little or no nexus to the nature or scale of the activities. However, the Church is willing to provide an unpaved area between the low wall and the naupaka hedge that can be used by walkers, if they desire. This detail has been added to the revised Site Plan.*

8: Applicant should provide off-street parking and a turnaround area. *The proposed landscaping would simply allow relocation and spreading out activities that already occur at the Church and does not involve any new activities. The extra landscaped space, which as the Site Plan illustrates is planned for only a very modest portion of Parcels 7 and 8, will assist in providing a more suitable setting for some of these activities. Only at very occasional large events such as Easter Services has parking been any kind of an issue, and the Church does not anticipate any need for new parking. Furthermore, building and using parking lots on the lease properties would be inconsistent with the desired landscape and the wishes of the community as expressed in letters and at community meetings. Based on these facts, we are of the understanding that the Planning Department does not see the need for and would not require off-street parking. Considering these circumstances, the Church does not plan to provide any off-street parking.*

9. Applicant should remove encroachments within County right-of-way. *The applicant is unaware of any encroachments, and is also unclear about the legal status of the current County right-of-way and/or easement in and around the subject properties. The Church will work with DPW during the consolidation-resubdivision process for an optimal solution for the County, State and Hokuhoa Church.*

10. Proposed utility poles. *No utility poles are proposed.*

We very much appreciate your review of the document, and we look forward to a reconsideration of the requests made in your letter based on our clarification of the activities. If you have any questions or concerns, please contact me at (808) 969-7090.

Sincerely,



Ron Terry, Principal
Geometrician Associates

Cc: Kevin Moore, Hawai'i DLNR; Pastor John Hoover, Hokuhoa Church

William P. Kenoi
Mayor



Darryl J. Oliveira
Fire Chief

Glen P. I. Honda
Deputy Fire Chief

County of Hawai'i
HAWAII FIRE DEPARTMENT
25 Aupuni Street • Suite 2501 • Hilo, Hawai'i 96720
(808) 932-2900 • Fax (808) 932-2928

June 15, 2011

Mr. Ron Terry
Geometrician Associates
PO Box 396
Hilo, Hawai'i 96721

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
LEASE OF STATE LAND, HOKULOA UNITED CHURCH OF CHRIST
SOUTH KOHALA
TMK: (3RD) 6-9-002:007, 008, 009, AND 010

We have no comments to offer at this time in reference to the above-mentioned Draft Environmental Assessment.


DARRYL OLIVEIRA
Fire Chief

TG:lpc



geometrician

ASSOCIATES, LLC
integrating geographic science and planning

phone: (808) 969-7090 PO Box 396 Hilo Hawaii 96721 rterry@hawaii.rr.com

August 5, 2011

Darryl Oliveira, Chief
Hawai'i Fire Department
25 Aupuni Street
Hilo HI 96720

Dear Chief Oliveira:

Subject: Comment to Draft Environmental Assessment for Lease of State Land, Hokuloa United Church of Christ, TMK (3rd) 6-9-002: 007, 008, 009 & 010, Puakō, Island of Hawai'i

Thank you for your comment letter on the Draft EA dated June 15, 2011, in which you stated that your agency had no further comments at this time. We very much appreciate your review of the document. If you have any questions about the EA, please contact me at (808) 969-7090.

Sincerely,



Ron Terry, Principal
Geometrician Associates

Cc: Kevin Moore, Hawai'i DLNR; Pastor John Hoover, Hokuloa Church

William P. Kenoi
Mayor



Harry S. Kubojiri
Police Chief

Paul K. Ferreira
Deputy Police Chief

County of Hawai'i

POLICE DEPARTMENT

349 Kapi'olani Street • Hilo, Hawai'i 96720-3998
(808) 935-3311 • Fax (808) 961-2389

June 6, 2011

Mr. Ron Terry
Geometrician Associates, LLC
P.O. Box 396
Hilo, Hawaii 96721

Dear Mr. Terry:

RE: Lease of State Land, Hokuloa United Church of Christ, TMK (3rd)
6-9-002:007, 008, 009, and 010

The above-referenced Draft Environmental Assessment has been reviewed, and it is determined that this project currently poses no impact to traffic. However, there are concerns with the development of Parcels 7 and 8 in terms of the large and mid-size use areas. There may be future impact relating to increased traffic in the area during church activities should these parcels be developed as parking zones.

In addition, it is suggested that trees and shrubbery be placed on the developed parcels in such a way to allow for clear observation of the areas to deter criminal activity.

Thank you for the opportunity to comment. Should you have any questions, please contact Captain James Sanborn, South Kohala District Commander, at 887-3080.

Sincerely,

HARRY S. KUBOJIRI
POLICE CHIEF

HENRY J. TAVARES JR.
ASSISTANT CHIEF
AREA II OPERATIONS

JS:dmv
RS100329

geometrician

ASSOCIATES, LLC
integrating geographic science and planning

phone: (808) 969-7090 PO Box 396 Hilo Hawaii 96721 rterry@hawaii.rr.com

August 5, 2011

Harry Kubojiri, Chief
Hawai'i County Police Department
349 Kapiolani Street
Hilo HI 96720

Dear Chief Kubojiri:

Subject: Comment to Draft Environmental Assessment for Lease of State Land, Hokuloa United Church of Christ, TMK (3rd) 6-9-002: 007, 008, 009 & 010, Puakō, Island of Hawai'i

Thank you for your comment letter dated June 6, 2011, on the Draft EA. In answer to your specific comments:

1: There would appear to be no impact to traffic currently, but there may be impact if use areas are developed as parking. *The Church does not anticipate the need for new parking areas.*

2: Trees and shrubbery should be placed so as to allow for clear observation and to deter criminal activity. *The proposed landscaping of Lots 7, 8 and 10 will provide a more open view across the property.*

We very much appreciate your review of the document. If you have any questions about the EA, please contact me at (808) 969-7090.

Sincerely,



Ron Terry, Principal
Geometrician Associates

Cc: Kevin Moore, Hawai'i DLNR; Pastor John Hoover, Hokuloa Church

William P. Kenoi
Mayor



BJ Leithead Todd
Director

Margaret K. Masunaga
Deputy Director

County of Hawai'i

PLANNING DEPARTMENT

Aupuni Center • 101 Pauahi Street, Suite 3 • Hilo, Hawai'i 96720
Phone (808) 961-8288 • Fax (808) 961-8742

June 23, 2011

Mr. Ron Terry
Geometrician Associates, LLC
P.O. Box 396
Hilo HI 96721

Dear Mr. Terry:

Subject: Draft Environmental Assessment (DEA)
Applicant: Department of Land and Natural Resources, Land Division
Project: Lease of State Land to Hokuhoa United Church of Christ
TMK: 6-9-2:7, 8, 9 & 10, Lalamilo, South Kohala, Hawaii

This is in response to your request for comments on the proposed lease of State land to Hokuhoa United Church of Christ.

The proposal is to cancel Revocable Permit No. S-4350 which grants the use of TMK: 6-9-2:9 and issue a Direct Lease for Church and Landscaping Purposes covering TMK: 6-9-2:7, 8, 9 and 10.

The proposal is:

1. to allow restoration, maintenance and operation of the Church as an active and living historical site open to the public and related purposes on Parcel 9;
2. to create a scenic landscaped vista protecting the historical integrity of the Church and allowing space for outdoor Church activities on the other properties; and
3. subdivide Parcel 9 and Parcel 10 to enable transfer of the portions of these properties that extend into the Puakō Beach Drive right-of-way to the County of Hawai'i. Any remnant property on the mauka side of Puakō Beach Drive would be consolidated into the State owned TMK: 6-9-1:15.

In reference to our June 14, 2010 letter, please note the following corrections:

1. The General Plan Designation for Parcel 10 includes Medium Density Urban.

2. Parcel 7 also has ocean frontage.

After our 2010 comments, we note that additional uses and structures are now proposed in the DEA. Activities include weddings, funerals, Church holiday celebrations and approved community events. Structures include storage sheds, a hog wire fence, rock walls, vehicular and pedestrian gates, signs, stone paved paths, pavers, as well as paved and gravel areas and landscaping improvements.

Based on the foregoing, we have these comments to offer:

1. **Hawai'i County Zoning Code, Chapter 25, Zoning:**
 - a. *Section 25-5-162, Permitted uses in the Open (O) district*
 - (a)(4) *Existing churches and temples of historical significance*
 - (10) *Private recreational uses involving no aboveground structure except dressing rooms and comfort stations*
 - (c) *Uses considered directly accessory to the uses permitted in this section shall also be permitted in the O district.*
 - b. *Section 25-5-167, Other regulations: Plan approval shall be required for all new structures and additions to existing structures in the O district.*

In reference to the above, a new church would not be permitted in the O district. Expansion of the Church uses onto the other three parcels would require that Lots 7, 8 and 10 be consolidated with Lot 9 so all church activities would remain on the same parcel as the church building.

We note that proposed activities include weddings, funerals, Church holiday celebrations and community events. The following should be addressed in the DEA:

- a. Number of special events in the course of the year.
- b. Anticipated number of participants for the different events.
- c. The scheduled hours of each event.

The foregoing information will affect the off-street parking requirements that must be met for the new proposal. These and the Americans with Disability Act standards will be addressed through Plan Approval review.

Finally, we note that the "Large" and "Mid-size" use areas for Church-related activities have a vehicular entry gate providing access from Puakō Beach Drive. Please expand on the use for these two "Gravel Pave" reinforced surface areas. Also, the amount and effect of impervious surfaces to be used for Church activities should also be clarified and further addressed.

2. **3.5 Required Permits and Approvals:**

Plan Approval would be required for any new structures which are approved under Section 25-5-167, as well as for certain new uses.

3. **3.6.2 Special Management Area:**

All four parcels are in the Special Management Area (SMA). Planning Commission Rule 9, Special Management Area, requires an assessment of all uses, activities or operations in the SMA. The proposal may be determined to not constitute a development or is exempt from the definition of development; or a SMA Minor Permit is issued; or a SMA (Major) Use Permit is required.

Although the project may have a valuation of less than \$125,000, if there may be a substantial adverse effect on the SMA area, then the Director will declare that an SMA (Major) Use Permit will be required.

3. **3.6.3 Shoreline Setback Rules.** Please note the clarification:

Planning Department Rules of Practice and Procedure, Rule 11-7, Structures or Activities Permitted within the Shoreline Setback Area, (a) states that *"The following structures or activities may be permitted within the shoreline setback area **provided written clearance is secured from the Planning Department:**"* (emphasis supplied)

Improvements proposed along the makai side of the parcels include stone pavers, pedestrian gates, a coastal trail, a hog wire fence, and the coastal trail.

A current certified shoreline survey will be required to determine whether these proposed improvements are in or out of the shoreline setback area. Rule 11-3(l) states that *"Structure" includes, but is not limited to, any portion of any building, pavement, road, pipe, flume, utility line, fence, groin, wall, or revetment.* Rule 11-3(m) states that *"Vegetation" means any plant, tree, shrub, grass, or groups, clusters or patches of the same, naturally rooted and growing*". Landscaping improvements, as described in this section of the DEA, appears to include both vegetation and structures.

For your information, we have included the following definition from Rule 11-3(e) and (f), respectively:

"Minor structure" shall not alter the existing grade of the shoreline setback area and shall be limited to landscape features (i.e., benches, chairs, borders, wooden trellis, bird feeders, signs, safety improvements, etc.); walkways for access; and sprinkler systems.

Mr. Ron Terry
June 23, 2011
Page 4 of 4

"Minor activity" means an activity that does not alter the existing grade of the shoreline setback area and may include activities such as landscaping and minor clearing (grubbing) of vegetation.

In view of the foregoing, please note that we will not, at this time, make a determination that *"the proposed landscaping will be considered a minor activity not requiring a variance"*.

A Shoreline Setback Variance would be required for any structure or activity not listed in Rule 11-7(a) and approved by the Planning Director, or determined to be a Minor Structure or Minor Activity per Rule 11-8.

If you have questions, please feel free to contact Esther Imamura of this office at 961-8139.

Sincerely,



BJ BJ LEITHEAD TODD
Planning Director

ETI/ajs:

P:\Public\Wpwin60\ETI\Eadraft\pre-Consult\Terry Hokuloa UCC 6-9-2-7 To 10.Rtf

xc: Hawaii Conference Foundation
DLNR, Land Division
Planning Department - Kona

geometrician

ASSOCIATES, LLC
integrating geographic science and planning

phone: (808) 969-7090 PO Box 396 Hilo Hawaii 96721 rterry@hawaii.rr.com

August 5, 2011

Bobby Jean Leithead-Todd, Director
Hawai'i County Planning Dept.
101 Pauahi Street, Suite 3
Hilo HI 96720

Dear Ms. Leithead-Todd:

Subject: Comment to Draft Environmental Assessment for Lease of State Land, Hokuhoa United Church of Christ, TMK (3rd) 6-9-002: 007, 008, 009 & 010, Puakō, Island of Hawai'i

Thank you for your comment letter dated June 23, 2011, on the Draft EA. Thank you also for meeting with us on July 11, 2012 to allow us to clarify certain aspects of the Site Plan so that your department would have a more precise understanding of the proposed action. In answer to your specific comments:

1: GP Designation includes Medium Density Urban. *Table 2 of the Final EA has been modified to include an expanded and more accurate listing of County zoning and LUPAG designations.*

2: Parcel 7 has ocean frontage. *Your correction to your earlier letter is noted. The EA already recognizes the frontage.*

3: Because of the Open designation in the GP, expansion of Church uses onto Parcels 7 and 8 would require consolidation with Parcel 9 so that all activities would remain on the same parcel as the Church building. *The Final EA has been amended to more fully explain that the planned consolidation-resubdivision action will include having the portions of Parcels 7, 8, 9 and 10 makai of Puakō Beach Road included in just one lot.*

4: The Final EA should specify the number of special events per year, the anticipated number of participants, and the scheduled hours of each event, in order for the Planning Department to determine off-street parking requirements and Americans with Disability Act requirements during the Plan Approval process. *It is first important to point out that the proposed landscaping would simply allow relocation and spreading out activities that already occur at the Church and does not involve any new activities.*

No commercial activities currently take place and none are planned. Only at very large events such as the Easter Services has parking been any kind of an issue, and the Church does

not anticipate any need for new parking. Furthermore, building and using parking lots on the lease properties would be inconsistent with desired landscape and the wishes of the community as expressed in letters and at community meetings. The State DLNR has found it difficult to manage these properties and sees the landscaping project by the Church as a benign use with the side benefits of providing shoreline and mauka-makai access and managing fire and litter, which will greatly assist DLNR. Based on these facts as discussed at our meeting, we are of the understanding that your Department no longer sees the need for and would not require off-street parking.

In deference to your original request, however, the Church has compiled a description of the activities that typically occur over the course of a year in order to illustrate the types of Church activities and community services that are provided. This information has also been added to the Final EA.

The Sunday Worship services run from 9-11 am, and outside of Thanksgiving, Christmas, and Easter Week services, they have an average monthly attendance of 42. In the last several years, the maximum was 110 attendees in one month. The holiday services were attended by more, with as many as 432 attendees spread over two services on Christmas, with slightly lower numbers for the two Easter services. Thanksgiving, Ash Wednesday, and Maundy Thursday have between 24 and 86 attendees. Baptism and wedding vow renewals are held on Sunday mornings with/after worship services. The Church Council meets monthly and the Congregation meets twice a year.

There are occasional weddings and funerals, although none were held at the Church from July 2010 to June 2011 (Pastor Hoover often officiates at weddings and funerals held at hotels, in backyards and at private homes). Earlier in 2010 there was one wedding at the Church with an attendance of 22. In addition, as part of the Church's mission to provide food to the hungry, biannual Community Food Collection/Donation Drives are held after worship services on the church lawn, with drive-by drop off from roughly 75 contributors.

The Church serves as a gathering place for community groups and activities: a weekly Alcoholics Anonymous group (15-45), a weekly Al-Anon group (15-50); annual meetings of the Puako Condo Association, periodic Puakō Historical Society meetings, the Puakō Community Association (three to six times meetings per year might be expected, with 30-45 in attendance), an annual community Thanksgiving Eve celebration; other special and timely gatherings such as CERT training; presentations by the Bishop Museum, the County Fire and Water Departments, Firewise, Neighborhood Watch, Nature Conservancy, West Hawai'i Fisheries Council, Lauhala Weavers, a Cub Scout Pack (1990-2005), Community Development Planning meetings, miscellaneous other non-profits and community organizations, and gatherings with public and elected County and State officials.

Again, these activities are not expected to significantly expand in diversity or attendance. The extra landscaped space, which as the Site Plan illustrates is planned for only a very modest portion of Parcels 7 and 8, will simply assist in providing a more suitable setting for some of these activities.

5: Will the Large and Mid-size areas be used for parking? *None of this area is contemplated for parking.*

6: How much total impervious surface will be emplaced? *No impervious surface will be emplaced.*

7: Plan approval will be required for structures. *The only planned structure subject to Plan Approval discussed in the Draft EA was the low storage shed, which has since been removed from the Plan. It is our understanding that Plan Approval will not be required for the proposed landscaping.*

8: An SMA Assessment will be required to determine whether/what level of an SMA permit is required. *An SMA Assessment will be submitted to the Planning Department after the EA process is complete.*

9: A shoreline setback survey will be required. *After approval of the lease from the BLNR and prior to any landscaping or trail improvements the Church will obtain a certified shoreline survey.*

10: The landscaping elements included in the plan appear to meet the definition of a structure and may require a Shoreline Setback Variance, although they may also be determined a minor activity that may not require a variance. The Planning Department has not yet determined this. *We will continue to coordinate with your Department on the proposed landscaping improvements and will apply for any necessary improvements. If these improvements cannot be permitted, then the portion of the project outside the Shoreline Setback will proceed, as it has independent value.*

We very much appreciate your review of the document. If you have any questions about the EA, please contact me at (808) 969-7090.

Sincerely,

A handwritten signature in black ink that reads "Ron Terry". The signature is written in a cursive, slightly slanted style.

Ron Terry, Principal
Geometrician Associates

Cc: Kevin Moore, Hawai'i DLNR; Pastor John Hoover, Hokuloa Church



June 21, 2011

Mr. Ron Terry
Geometrician Associates
P.O. Box 396
Hilo, HI 96721

Dear Ron Terry,

SUBJECT: Lease of State Land, Hokuloa United Church of Christ
South Kohala District, Hawai'i; TMK: (3) 6-9-02:07, 08, 09 and 10

Mahalo for responding to my comments and concerns expressed in June 2010 regarding the church's lease of state-owned land in Puakō. I greatly appreciate the church's welcoming of the public to share in access to the shoreline. Although the *mauka-makai* trail on parcel 7 has been informally used for a long time, the church's project will ensure that it remains open to the public. The public shoreline trails will be amenities for all to enjoy and be part of the continuous, well-managed trail network envisioned for the island. This network is being quilted together with the help of County, State and Federal programs. It is most appropriate that the oceanfront, publicly owned parcels be shared with the public as part of this lease.

A certified shoreline survey is essential to ensuring that the public trail and the proposed hogwire fence running *mauka* of the trail are located sufficiently outside of the highest wash of the waves during high tide. To ensure that the trail is secure in the future, a permit condition should require that the proposed hogwire fence and trail be moved inland if shoreline changes result in the lateral shoreline trail being under water. While the DEA considers significant shoreline change in this area to be unlikely, residents have noticed shoreline changes nearby in recent years. Movement of the fence and trail may never be needed, but the possibility should be acknowledged in permits for the project.

Vegetation that is planted or retained by the church directly *mauka* of the lateral shoreline trail will need to be maintained by the church to ensure that the plants do not encroach into the public trail, interfere with public passage or pose safety concerns. Naupaka is mentioned in the DEA as the plant of choice along the hogwire fence, and the need to keep naupaka trimmed has been demonstrated repeatedly along shoreline trails in South Kohala.

As for actual "construction" of the public trail, the trail should be minimally cleared and left in a natural state. Not only will that reduce its impact on the nearshore environment but a more natural trail will have fewer maintenance requirements. The State's Nā Ala Hele program has extensive experience

in all aspects of trail restoration and maintenance and should be included in this project. Volunteer involvement can be a cooperative effort of Nā Ala Hele, the Ala Kahakai National Historic Trail, the non-profit, E Mau Nā Ala Hele, and others.

Finally, I appreciate the DEA's informative discussion of the history of *kiawe* in Puakō and its many positive and negative aspects. *Kiawe* has its positive and negative effects on historic sites as well, often growing within the sites and damaging them with their roots but also indirectly protecting unmaintained sites by serving as barriers to cattle and people. I support selective removal of *kiawe* on the subject properties and replanting with native trees and shrubs as described in the DEA (using Best Management Practices). The scenic beauty of the area will be improved, and the benefits of the current forest cover can be retained with plants that were historically there before being displaced by *kiawe* and ironwood.

Again, I thank you for including me in the environmental review process.

Sincerely,



cc: Reverend John Hoover
Kevin Moore
Aric Arakaki
Irving Kawashima
E Mau Nā Ala Hele Board

geometrician

ASSOCIATES, LLC
integrating geographic science and planning

phone: (808) 969-7090 PO Box 396 Hilo Hawaii 96721 rterry@hawaii.rr.com

August 5, 2011

Debbie Chang, LSW, Principal Planner
Island Transitions LLC
PO Box 202
Paauilo HI 96776-0202

Dear Ms. Chang:

Subject: Comment to Draft Environmental Assessment for Lease of State Land, Hokuloa United Church of Christ, TMK (3rd) 6-9-002: 007, 008, 009 & 010, Puakō, Island of Hawai'i

Thank you for your comment letter dated June 21, 2011, on the Draft EA. In answer to your specific comments:

1: Trail needs to be located sufficiently outside the highest wash of the waves at high tide and it should be moved inland if the shoreline advances inland. *This is the intent of the plan.*

2: If naupaka is used to delineate the mauka edge of the trail, it needs to be trimmed by the Church to ensure that it does not encroach on the trail, as has happened elsewhere in the State. *The Church plans to maintain the landscaping throughout the property to ensure that no trails are encroached upon.*

3: Trail should be minimally cleared and left in a natural state. *The Church agrees with this. As stated in the EA, the Church will seek the assistance of the Ala Kahakai NHT, Na Ala Hele and E Mau Na Ala Hele in selecting the actual route and clearing the trail.*

4: Supports selective removal of kiawe and replacement with native plants and shrubs. *We appreciate your concurrence.*

We very much appreciate your review of the document. If you have any questions about the EA, please contact me at (808) 969-7090.

Sincerely,

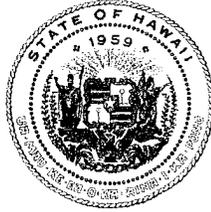
A handwritten signature in black ink that reads "Ron Terry". The signature is written in a cursive, slightly slanted style. The "R" is large and loops back, and the "y" has a long, sweeping tail that ends in a small hook.

Ron Terry, Principal

Geometrician Associates

Cc: Kevin Moore, Hawai'i DLNR; Pastor John Hoover, Hokuloa Church

NEIL AMBERCROMBIE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

Division of Aquatic Resources - Kona
74-380B Kealahou Parkway
Kailua-Kona, HI 96740

WILLIAM J. AILA JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

GUY KAULUKUKUI
FIRST DEPUTY

BILL TAM
DEPUTY DIRECTOR - WATER

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

20 June 2011

Geometrician Associates
Po Box 396
Hilo HI 96721

Dr. Ron Terry

The Division of Aquatic Resources (DAR) was asked to comment in April 2010 on the DEA for Lease of State Land, Hokuhoa United Church of Christ. At that time DAR was not aware of any issues relating to our concerns - aquatic resources— thus no DAR comment was provided.

That changed in September 2010 when Ms. Sara Fuller alerted us to possible issues regarding removal of kiawe along the shore and potential negative effects of such removal on the adjacent fish community. We subsequently did an in-water reconnaissance of the reef flat adjacent to the project in November 2010 and found the area to be particularly productive fish wise. Small schools of aholehole, manini and mullet were noted in the shallows directly adjacent to the kiawe and large numbers of damselfish were noted a bit further offshore.

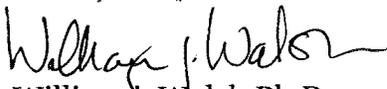
Outside of this relatively small area (both N & S of the project site) fish were not particularly abundant along the shoreline. Our feeling was that the primary reason for the more abundant fish (particularly food fish) adjacent to the kiawe stand was the fact that shoreline access was essentially blocked by the tangle of kiawe trees thus no fishing (e.g. thrownetting) could occur there. The tree tangle essentially made a mini no-take area. Shading effects of the overhanging trees (darker/cooler water) may also have played a role in creating this small sanctuary. It was clear that it wasn't branches in the water and resulting increased physical structure that was responsible – there weren't many branches at all in the water although there was considerable organic detritus on the bottom. So bottom line is that the kiawe does appear to be enhancing the protection of fishes in the proximate nearshore area thus resulting in increased abundance in the nearshore habitat.

I did notice in the DEA a statement (pg. 26) to the effect that the tree removal would have little or no effect on reef health. "As discussed in Section 1.1., there is no basis in fact for the assertion by some commenters that overhanging branches of *kiawe* on

the properties are the key to reef health in Puakō. Although some juvenile fish may take advantage of this shelter, it is not necessary for their survival, as this situation did not exist prior to the proliferation of *kiawe* in the last 200 years. Millions of years of evolution of the reef ecology clearly did not involve these newcomer trees.”

This statement is not accurate based on our in-water observations. The kiawe trees do appear to be protecting and enhancing the nearshore fish community and this function should be factored into any consideration regarding their removal.

Thank you for your attention to this matter.



William J. Walsh Ph.D.

Cc: Hawaii Conference Foundation
Hawai'i State Department of Land and Natural Resources, Land Division

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ASSOCIATES, LLC

integrating geographic science and planning

phone: (808) 969-7090 PO Box 396 Hilo Hawaii 96721 rterry@hawaii.rr.com

August 5, 2011

William J. Walsh, Ph.D.
Division of Aquatic Resources, Kona
Department of Land and Natural Resources
74-380B Kealakehe Parkway
Kailua-Kona HI 96740

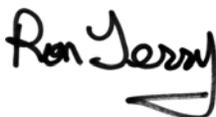
Dear Dr. Walsh:

Subject: Comment to Draft Environmental Assessment for Lease of State Land, Hokuloa United Church of Christ, TMK (3rd) 6-9-002: 007, 008, 009 & 010, Puakō, Island of Hawai'i

Thank you for your comment letter dated June 20, 2011, on the Draft EA. We appreciate your explanation about DAR's choice to not to respond to early consultation because it did not realize that aquatic resources were involved. We concur with your observation that the kiawe thicket appears to enhance fish habitat not because dangling branches have habitat value but rather due to the difficulty of access fostering a mini no-take zone. Please note that although the landscaping plan does not perpetuate the partial inaccessibility of this 130-yard long stretch of shoreline, Ala Kahakai National Historic Trail officials have made it clear that regardless of any future use of the properties they intend to create a trail that would open up this stretch of shoreline to access. The Church plans to leave some kiawe trees in place and to introduce appropriate coastal species that will keep the vegetation somewhat dense. We believe the net effect will be an increase in the habitat value of the area.

Again, we very much appreciate your review of the document. If you have any questions about the EA, please contact me at (808) 969-7090.

Sincerely,



Ron Terry, Principal
Geometrician Associates

Cc: Kevin Moore, Hawai'i DLNR; Pastor John Hoover, Hokuloa Church



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE

Ala Kahakai National Historic Trail

73-4786 Kanalani St., Suite 14

Kailua-Kona, HI 96740

June 17, 2011

Ron Terry, Principal
Geometrician Associates, LLC
PO Box 396
Hilo, Hawaii 96721

RE: Lease of State Land, Hokuloa United Church of Christ
TMK: (3) 6-9-002:007,008,009 & 010

Dear Mr. Terry:

Thank you for providing the National Park Service with the opportunity to submit comments to you during your preparation of an Environmental Assessment (EA) for the Hokuloa United Church of Christ in the community of Puako, Lalamilo, South Kohala.

The National Park Service (NPS) administers the Ala Kahakai National Historic Trail (NHT), added to the National Trails System by the U.S. Congress on November 13, 2000 (Public Law 106-509). The legislation authorizing the Ala Kahakai NHT identifies an approximately 175-mile portion of prehistoric *ala loa*, and other trails on or parallel to the seacoast extending from Upolu Point on the northern tip of Hawaii Island down the west coast of the island around South Point to the east boundary of Hawaii Volcanoes National Park. The Ala Kahakai National Historic Trail combines surviving elements of the *ala loa* with segments of later *alamui aupuni*, which was developed on or parallel to traditional routes, *mauka-makai* trails, and more recent pathways and roads that create links between the historic segments. Natural and cultural resources and landscapes are vital to the mission of the Ala Kahakai National Historic Trail.

Background

The National Park Service thanks the applicant for recognizing elements of the Ala Kahakai NHT in the draft environmental assessment. In January 2009, the Ala Kahakai NHT Comprehensive Management Plan (CMP) and EIS were adopted as policy and listed in the Federal Register. On February 21, 2010, the County of Hawaii, State of Hawaii, and NPS entered into a Memorandum of Understanding (MOU) to implement the Ala Kahakai NHT CMP.

The "Ala Kahakai Trail" in South Kohala is currently managed by the Department of Land and Natural Resources (DLNR), Department of Forestry and Wildlife (DOFAW). As such, we ask that Na Ala Hele Trail and Access Program, along with Ala Kahakai NHT, be included and consulted regarding the exact location of the trail through the subject parcels.

The coastal trail should be located above the certified shoreline, with room to accommodate future changes in the shoreline due to erosion and/or subsidence/sea-level rise. To assist in

determining the appropriate location of the trail, please include a map which shows the certified shoreline and the forty-foot shoreline setback in relation to planned clearing, landscaping, and the “low-key storage shed”.

Hazardous Substances, Toxic Waste and Hazardous Conditions

The shoreline area of Puako is an important resource for lot owners and members of the broader community. Section 3.1.7 states that “In order to ensure that landscaping-related damage is avoided or minimized, the Church will inform all crews working on the property that they must replant or otherwise stabilize cleared areas as soon as possible, and they must prevent landscaping material including packaging, petroleum products, plant material, wastes and debris from blowing, falling, flowing, washing or leaching into the ocean”.

Because the parcels are highly permeable (p.15) and most likely contain significant groundwater, please include “landscaping substances (herbicides, pesticides, and fertilizers)” in the statement above; and since the project is primarily a landscaping project, please detail the applicant’s best management practices to prevent herbicides, pesticides and fertilizers from blowing, flowing, washing or leaching into the ocean during and after construction, and as part of its on-going grounds maintenance operations.

Land Use, Designations and Controls

Section 3.2.1, Existing Environment, (p.28, 29) states: “A Shoreline Setback Variance is not expected to be required for the action, as the only proposed activities within the shoreline setback (40 feet from the shoreline) is construction of a trail, with an accompanying low *naupaka* hedge *mauka* of the trail, inside of which would be hidden a 4-foot tall hogwire fence that would subtly demarcate the Church use area”.

The preferred route of the trail is dependent on the natural terrain. Ala Kahakai NHT will not encourage a “constructed” trail within the shoreline setback. Consultation with Na Ala Hele Trail and Access Program and Ala Kahakai NHT is recommended. Since the trail is not a “constructed” feature, the only proposed construction in the shoreline setback would be the hogwire fence and associated gates.

Cultural and Historic Resources

Ala Kahakai National Historic Trail was established to administer the preservation and protect, reestablish as necessary, and maintain the ancient coastal ala loa and associated resources and values, along with linking trails on or parallel to the shoreline. The goal is to provide high quality experience, enjoyment and education guided by Native Hawaiian protocol and etiquette while protecting the trail’s natural and cultural heritage and respecting private and community interests. The 175 mile trail corridor includes those trails found within Puako.

Ala Kahakai NHT is looking forward to working with the landowners and communities of Waialea, Puako and greater South Kohala to initiate managed access along this important section of the Ala Kahakai NHT corridor.

I appreciate this opportunity to provide our comments. Please contact me, 808-326-6012 ext.101, or our resource staff archeologist, Rick Gmirkin, at ext. 102 to discuss any questions you may have on our comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Aric Arakaki". The signature is fluid and cursive, with the first name "Aric" and last name "Arakaki" clearly distinguishable.

Aric Arakaki
Superintendent

cc: B. Leithead-Todd, County of Hawaii Planning Department
State of Hawaii, DLNR, Department of Forestry and Wildlife, Na Ala Hele
State of Hawaii, DLNR, Land Division
State of Hawaii, Office of Conservation and Coastal Lands
State of Hawaii, State Historic Preservation Division
Reverend John Hoover, Hawaii Conference Foundation
NPS Pacific West Region

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phone: (808) 969-7090 PO Box 396 Hilo Hawaii 96721 rterry@hawaii.rr.com

August 5, 2011

Aric Arakaki, Superintendent
Ala Kahakai National Historic Trail
National Park Service
U.S. Department of the Interior
73-4786 Kanalani St., Suite 14
Kailua-Kona 96740

Dear Mr. Arakaki:

Subject: Comment to Draft Environmental Assessment for Lease of State Land, Hokuloa United Church of Christ, TMK (3rd) 6-9-002: 007, 008, 009 & 010, Puakō, Island of Hawai'i

Thank you for your comment letter dated June 17, 2011, on the Draft EA. In answer to your specific comments:

1: Trail needs to be located sufficiently outside the highest wash of the waves at high tide and it should be moved inland if the shoreline advances inland. *This is the intent of the plan.*

2: Please include a map which indicates trail in relation to other plan elements. *Please see the Site Plan included as Figure 4 in the EA, on which the trail is clearly marked. Bear in mind that the map is a conceptual drawing. The Church looks forward to working with your agency and others to provide the best location for the trail on the ground.*

3: Please include herbicides, pesticides and fertilizers in the statement regarding precautions. *As stated in Section 3.1.3, no pesticides (which include herbicides), will be used. In deference to your request, fertilizers have been added to the list of materials that must be prevented from blowing, falling, flowing, washing or leaching into the ocean.*

4: Trail should be minimally cleared and left in a natural state. *The Church agrees with this. As stated in Sections 1.1 and 3.2.2 of the EA, the Church will seek the assistance of the Ala Kahakai NHT, Na Ala Hele and E Mau Na Ala Hele in selecting the actual route and clearing the trail.*

We very much appreciate your review of the document. If you have any questions about the EA, please contact me at (808) 969-7090.

Sincerely,

A handwritten signature in black ink that reads "Ron Terry". The signature is written in a cursive style with a large, stylized "R" and a long, sweeping underline that extends to the right.

Ron Terry, Principal
Geometrician Associates

Cc: Kevin Moore, Hawai'i DLNR; Pastor John Hoover, Hokuloa Church

June 13, 2011

Ron Terry
Geometrician Associates
PO Box 396
Hilo, Hawaii 96721

Lease of State Land, Hokuloa United Church of Christ, TMK: (3) 6-9-02: 7, 8, 9, 10

The following are my comments on Hokuloa United Church of Christ's Draft Environmental Assessment

Aloha Mr. Terry,

At our recent Puako Community Association board meeting on June 1st, Reverend John Hoover stated that the Church's plans call for large portions of parcels 7 and 8 to "keep" the existing kiawe trees and to be beautifully trimmed up to create a canopy. How nice to hear this as these trees will help with erosion, dust and wind control. However, in the draft EA it is stated in at least 13 different places about the Church's plans of clearing/thinning, exchanging or replacing 99% of the kiawe trees and the existing vegetation, (pages 5,7,18,21,26,27,28,42,43,45,49.) What are the actual plans?

The draft EA states on page 7, "The actual shoreline would be left free of vegetation." My October 28, 2010 letter to you mentioned that past history has proven that vegetation removal in Puako has resulted in land eroding and the soil ending up where it should not be. Shoreline vegetation removal has resulted in loss of fish habitats. Would it be better to place the Ala Kahakai National Historic Trail farther mauka from that shoreline?

Enclosed for you are 2 photos of what is now called Puako Bay at tax map key # (3) 6-9-02: 2. It is situated North of the State's parcels 7 and 8. Photos 1 and 2 are of parcel 2's erosion. This is the property where private owners cleared trees off of State land resulting in erosion and loss of the fish habitat in that location. The shoreline vegetation as well as some of the privately owned interior vegetation have been removed.

Photos 3, 4, 5, 6, 7, and 8 are of the tree lined shoreline on the State's parcels 7 and 8. Photos 9, 10 and 11 are of existing trees on those parcels 7 and 8: the beautiful yellow blossoming cassia tree and 2 photos of some of the grand ironwood trees. I've given you these photos in hopes the Church's plans are to save the trees and include them in their plans for they are beautiful, old and established, as are many of the parcel's kiawe trees and play a role in erosion prevention.

Enclosed also is a short 2 minute DVD of video I took of the fish habitat living underneath the trees between Hokuloa Church and the Sullivan's along parcels 8 and 7. You can play it either on your computer or TV.

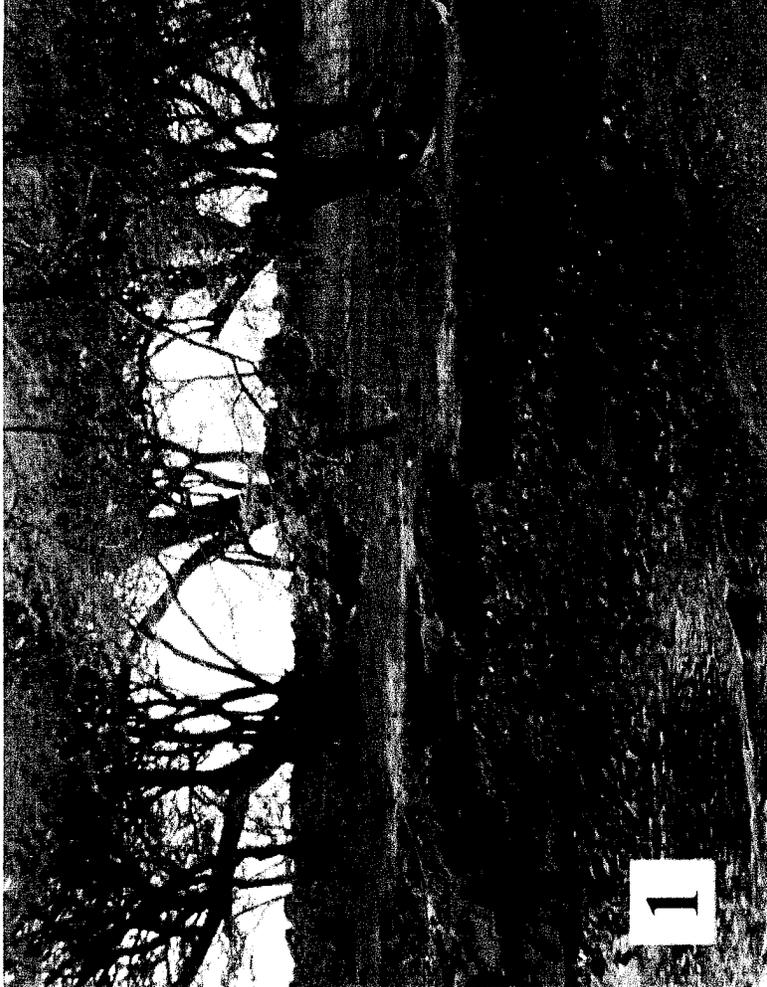
I live in Puako. My heart is in Puako. I care deeply for this community, for the environment, for the Hokuloa Church and for its neighbors. I am hoping the Church finds it in their heart to work closely with environmental organizations, the community and the Church's neighbors to create a positive, healthy result that is a "win win" situation for all concerned as the Church could be a good choice to become stewards of these 2 parcels.

Respectfully yours,



Sara Fuller

69-1647 Puako Beach Drive #301
Kamuela, Hawaii 96743







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integrating geographic science and planning

phone: (808) 969-7090 PO Box 396 Hilo Hawaii 96721 rterry@hawaii.rr.com

August 5, 2011

Sara Fuller
69-1647 Puako Beach Drive, #301
Kamuela HI 96743

Dear Ms. Fuller:

Subject: Comment to Draft Environmental Assessment for Lease of State Land, Hokuloa United Church of Christ, TMK (3rd) 6-9-002: 007, 008, 009 & 010, Puakō, Island of Hawai'i

Thank you for your comment letter dated June 13, 2011, on the Draft EA. In answer to your specific comments:

1: Rev. Hoover claims that existing kiawe trees will be trimmed, but the EA states that they will be clearing/thinning "99%" of the trees. *If the commenter will carefully reread this section, the reference to 99% does not specify how much kiawe will be removed but rather how much of the vegetation is composed of kiawe.*

2: If the shoreline is left free of vegetation it will erode and sediment will end up in the ocean. Photos have been enclosed demonstrating how this has already happened in Puako. *Nowhere in the Draft EA is it stated that the area behind the shoreline will be left free of vegetation, and that is not the plan. A non-native invasive tree that actually precludes the establishment and persistence of groundcover will be removed and replaced with native and Polynesian species that promote soil retention, except for some relatively small use areas that will be covered with a permeable surface.*

3: Removal of kiawe trailing into the water will result in a loss of fish habitat. A DVD with the fish habitat of the area was enclosed. *Thank you for including the DVD, which we carefully watched. As stated in the EA, while we acknowledge that fish tend to cluster in shady spots, we do not concur with your ecological analysis about any vital role played by kiawe in the reef ecosystem.*

4: The Ala Kahakai Trail should not be placed on the shoreline. *The trail will not be placed on the shoreline. The Church will seek the assistance of the Ala Kahakai NHT, Na Ala Hele and E Mau Na Ala Hele in selecting the actual route and clearing the trail.*

We very much appreciate your review of the document. If you have any questions about the EA, please contact me at (808) 969-7090.

Sincerely,

A handwritten signature in black ink that reads "Ron Terry". The signature is written in a cursive style with a large, sweeping underline.

Ron Terry, Principal
Geometrician Associates

Cc: Kevin Moore, Hawai'i DLNR; Pastor John Hoover, Hokuhoa Church

A. ROBERT TEYTAUD

69-1647 Puako Beach Dr. #304, Kamuela HI 96743, Tel. 808-882-4070

Comments on the May 2011 Draft Environmental Assessment (DEA) for the Lease, Landscaping, and Usage of State-Owned Shoreline Lands in Puako by the Hokuloa United Church of Christ By A. Robert Teytaud June 18, 2011

Comment 0.0

The following is based on my review of the Draft Environmental Assessment (DEA) submitted to DLNR by the Hokuloa United Church of Christ at Puako, concerning the Church's request to DLNR for the cancellation of Revocable Permit No. S-4350, and issuance of a Direct Lease to the Church covering the Parcels designated TMK 6-9-002:007, 008, 009 and 010.

I am a retired biologist, with a master's degree in marine fisheries biology and a former career in coastal/marine resources management, impact assessment, and conservation planning that spanned 35+ years. I have served as a biological consultant to two different community groups in Puako, and I have written technical reports on marine conservation planning, water quality and pollution monitoring, and the status of the coral reefs and other nearshore marine habitats in Puako Bay (Teytaud 2001a, 2001b, 2003). I am very familiar with the biological communities, habitats and species found on or adjacent to "the site," and in the general "project area" as these terms are defined on DEA p. 11.

I have been a resident of the State of Hawai'i since 1995. I am a long-term neighbor of the Hokuloa Church, my wife and I having lived year-round in our own unit at the Puako Beach Condominiums since 1999. We use and enjoy the shoreline and marine environment in Puako on a daily basis, being fans of hiking, beach walking, tide-pooling, swimming, diving, snorkeling, fish-watching, kayaking and whale-watching. I have a keen interest in the ecological relationships among the terrestrial, coastal and marine environments in the area, and over the years I have observed and tried to keep track of the many changes, good and not-so-good, that have occurred in these environments during my residence here.

The protection of our coral reef and its associated biological resources is a subject of great concern to me and to the majority of Puako residents. According to marine ecologist Brian Tissot (1996), the Puako coral reef is "Considered by many people to be one of the most spectacular reefs in the state, [and is] also one of the most well developed ... reefs on the island." It is the basis of the area's popularity with the fishing and diving communities, and it is why the University of Hawai'i (Hilo) has decided to construct its new marine laboratory here.

The Aquatic Resources Division of DLNR administers the Puako Bay-Puako Reef Fisheries Management Area (FMA), which includes the marine environment immediately offshore of the project site, as a "protected" area (i.e., no nets except throw-net) for replenishment of fish stocks. DLNR has cooperated for years with academic researchers from the University of Hawai'i and many other institutions on a variety of conservation-oriented coral reef studies in the FMA. *In short, it seems fair to say that the continued well-being of this coral reef system is a very big deal indeed, and that the interests of the public at large (who are the ultimate 'owners' of the state property in question) must be weighed against the narrower interests of the congregation and friends of the Hokuloa Church.*

The main intent of my comments is to evaluate the *cumulative* effects of the proposed project, positive or negative, on the overall 'health' (i.e., ecological integrity) of the adjacent coral reef system in Puako Bay, over a timeframe of (let's say) a few years to a few decades from now. But to do that, I will need to review the *existing* environmental problems that have a bearing on the total cumulative impact.

I will give the reasoning behind my assessment of the project's likely cumulative effects below, but here is the brief "executive summary":

- ① 1. *The applicant has taken an 'all or nothing' approach in the DEA, offering no alternative to their proposed project other than the 'no-action alternative'. Since I do not approve of their proposal in its entirety, I must recommend that the DEA be rejected. According to the applicant's own wishes as stated on DEA p. 10, this amounts to a recommendation to implement the 'no-action alternative.'*
- ② 2. *It is my opinion that the portion of the proposed project calling for the complete conversion of **Parcels 7 and 8** into an open landscaped area carries too high a risk of additional adverse impacts on the coral reef system of Puako Bay, from excessive sedimentation due to flash-flooding from Kamakoa Gulch.*
- ③ 3. *Considering the broader public interest, and the interest of the local Puako community, I think that the 'highest and best' use of the state land on **Parcels 7 and 8** is to maintain (and where necessary to restore) the densest possible growth of the existing kiawe vegetation on the entire acreage of these parcels (or almost the entire acreage, see nos. 4 & 5 below for qualification), with the objective of protecting the marine environment in this area of Puako Bay from additional sedimentation impacts.*
- ④ 4. *However, I understand that the applicant alleges the construction of Puako Beach Drive has made its use of part of the original leased acreage either inconvenient or impossible, and I recognize their legitimate desire for consolidation of the leased lands and protection of the historical church property. For this reason I am not opposed to some (albeit more limited) development by the Church of a landscaped area of native and Polynesian plants, or some other type of area for its 'outdoor activities' as long as it is consistent with the objective of minimizing impacts on the marine environment.*
- ① 5. *Depending on the future willingness of the applicant to change their 'all-or-nothing' stance, I believe that a reasonable compromise alternative to the project as it is currently proposed may be possible. At the end of these comments I have suggested what I believe to be such a reasonable alternative, which could lead to a re-submission of the lease request with very little effort on the applicant's part other than making some key changes to the present DEA and a re-design of the portion of the proposed project now located on **Parcels 7 and 8**.*

Notes: These comments are supported by video and photo-documentation of a recent flash-flood event in Puako on December 22, 2010, showing impacts from the floodwaters of Kamakoa Gulch on the terrestrial and marine environments. All references to **Photo-01**, etc. in the text below are to this set of photos, only a few of which have been included here. Although the entire photo-documentation series was too extensive to be inserted into this document, it (and also a video) has been provided in digital format on the accompanying CD.

I have also created a series of **overlay maps** of the project area, some of which have been included in this document (**Note: to read the labels on these maps, I recommend increasing the zoom level on your word processor to 150% or more**). The full series of these maps is also on the CD.

Comment 1.0

Kiawe Pollution; and the Differences between 'Native Ecosystem Restoration' and Gardening

I want to clear up a couple of issues involving: (a) a key assertion about kiawe that is not supported in the DEA by any published references or data, and (b) some apparent confusion or perhaps misdirection – whether deliberate or not I can't say – about the conservation value of the proposed project.

5 First, the DEA floats the notion that the destruction of the existing kiawe forest vegetation on **Parcels 7 and 8** may actually be a positive effect of the proposed project on groundwater and marine water quality. On DEA p. 13 it says, "However, all ecologists contacted as part of this EA believe that natural systems in the absence of kiawe tend to be healthy, and that on balance, kiawe may be adversely impacting the ecosystems through increased nitrogen loading and decreased freshwater inputs."

This hypothesis that kiawe is responsible for much of the existing nitrogen loading of groundwater in west Hawai'i, which can have negative impacts on the marine environment when the groundwater discharges into the ocean, has been kicked around for a long time (since at least 1977, in fact). It might seem like a plausible argument, since kiawe is indeed a nitrogen-fixing legume that grows in dense stands hereabouts. Although this possibility has been mentioned in the literature by a few scientists (and uncritically picked up and repeated by many other writers), the problem has always been that there is little empirical data to either back up or refute the notion, and as far as I know that situation has not changed.

But unfortunately, a dearth of evidence hasn't stopped many folks from trotting out this old chestnut every time they want to justify getting rid of an inconvenient stand of kiawe.

So what is the actual evidence pro or con? Knee et al. (2010) mentioned the following published papers in their thumbnail sketch of the kiawe-as-water-polluter idea, although none of these papers actually contain anything more than speculation that the idea might be true: Kay et al. (1977); Brock et al. (1987); and Street et al. (2008). In the same 2010 paper (p. 1115), Knee et al. reported on their own attempt to look for a positive correlation "... between kiawe tree prevalence and fresh SGD component N + N concentration," but in fact no such correlation was observed by them [SGD means Submarine Groundwater Discharge]. That doesn't necessarily mean that there isn't a correlation; it just means that if one exists, they couldn't demonstrate it with the sample size and techniques that they used in their study. As far as I know, neither has anyone else to date.

And that seems to be where the whole 'kiawe pollution' matter rests today. Given that no published source is cited in the DEA, and noting the careful phrasing of the hearsay suggested as support for the hypothesis (However, all ecologists contacted as part of this EA believe that natural systems in the absence of kiawe tend to be healthy...) I will continue to maintain a skeptical attitude.

If the applicant knows of any hard data (published or unpublished) that shows kiawe really is "adversely impacting the ecosystems through increased nitrogen loading and decreased freshwater inputs", then I suggest that the DEA should simply cite the evidence in a straight-forward manner. *Until such data is presented, I do not think that there is reason for anyone to accept the DEA's suggestion that destruction of the kiawe forest vegetation would represent a positive effect of the proposed project on the environment.*

6 The second issue shows up on DEA p. 23, where much is made of the fact that "Conservation biologists in Hawai'i believe that native ecosystems, which represent species that have evolved together for hundreds of thousands or millions of years and support complex ecological webs and many rare and special organisms,

6 cont-d

are far more valuable. Despite the good qualities of kiawe, to the extent that invasive species such as kiawe displace such native ecosystems, they are generally considered to have adverse effects on the ecosystem (Cuddihy and Stone 1990; Gallaher, T. and M. Merlin 2010).”

Continuing in this vein on p. 23, there is a long paragraph about how “On-the-ground managers of ecological restoration in projects in Hawai‘i frequently battle with this tenacious invader...,” featuring the epic struggles of DOFAW, TNC, La‘i‘ōpua Plant Preserve, and NPS to remove kiawe so that native plants can have a chance to re-colonize and rebuild the native ecosystems. And so forth, and so on.

I have no problem with any of this information on ecological restoration per se, except to point out that it is completely irrelevant to the proposed project! The Church is not interested in removing the alien kiawe forest to rebuild any kind of native ecosystem; it wants to remove it simply in order to replace it with a highly artificial area that features a variety of native and Polynesian plants. ‘Ecosystem restoration’ doesn’t even begin to enter into it.

I have to assume that the consultant knows full well that the kinds of activities proposed in the DEA actually have very little to do with “native ecosystem restoration”. That would involve ... well, you know – rebuilding a more-or-less intact native ecosystem, not just creating and maintaining an aesthetically pleasing landscaped garden (with native and Polynesian species, to be sure).

Talk about conservation biologists trying to preserve complex ecological webs implies (without actually saying so) that an effort will be made to restore the Puako dry coastal ecosystem to some semblance of its appearance and functional integrity in the historical past. But then this whole discussion just comes to an abrupt end, with no real connection being made to the proposed project. Absent any further explanation, one has to wonder if this concern for ‘native ecosystem restoration’ isn’t simply being used as a marketing ploy to promote the project with the Lands Division of DLNR and with the conservation-minded public.

Comment 2.0
Existing Environmental Problems in the Project Area

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Since my comments are geared towards evaluating the cumulative environmental effects of the proposed project, it is necessary to set the stage by reviewing the existing environmental problems in the immediate area of the project site.

Puako is situated in an area with one of the lowest total annual rainfall amounts in the State of Hawai‘i, and heavy rainfall is a relatively rare phenomenon here. However, despite the low annual rainfall in Puako proper, torrential rainstorms do occur in the large upland watershed, occasionally producing high-intensity runoff events (flash-floods) that drain into the Puako area via two main intermittent watercourses. Such flash-floods are known to have occurred many times in the past and will inevitably occur many times in the future; their frequency will change depending on the local climate cycles of drought years and wet years and on longer-term climate trends such as global warming.

High-runoff events cause significant soil erosion in the upland areas, and flooding in the intermittent watercourses then delivers the eroded sediments onto the flat coastal floodplains of the Puako area. These floodwaters with their load of sediments (containing nutrients that stimulate the over-growth of corals by marine algae, and possibly toxins such as pesticide and herbicide residues) then find their way into the nearshore waters of Puako Bay, where they pose a significant threat to the health of the coral reefs. Coral reefs are well-known to be particularly sensitive to the detrimental effects of such land-based pollutants (for example, see the references summarized in Teytaud 2001a).

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The largest source of sediments in the immediate project area is Kamakoa Gulch. To protect the reefs, it is vital that the amount of sediment deposited into the ocean during flooding events in Kamakoa Gulch should be minimized as much as possible (even though, of course, we can never completely eliminate all sedimentation). This means that any developments permitted in the vicinity of intermittent streams in the upland watershed, on the lowland floodplains, and on the Puako shoreline should include strong measures to control erosion and sedimentation, and that the existing laws and regulations concerning erosion and sedimentation control should be rigorously enforced by the responsible agencies.

As I will show below, implementation and enforcement of effective measures to control soil erosion and sedimentation from flash-flooding have been lax to non-existent in precisely those areas of Puako where they are most needed. *Several public and private shoreline properties near the proposed project site have been badly mismanaged for years in regard to erosion and sedimentation control – a situation that should be of grave concern to both the Land and Aquatic Resources Divisions of DLNR, but apparently has not been, since no action has been taken to correct it.*

Vegetation has been cleared on both private and state lands subject to flooding by Kamakoa Gulch, and some of these lands have then been left completely bare of vegetative cover for years. A firebreak cleared in 2007 continues to be a source of sediments eroded by both wind and water. Recent actions undertaken to clear Kamakoa Gulch of obstructions have also resulted in the creation of unstabilized streambanks that will be subject to severe erosion for years to come.

None of these existing problems has been addressed by the DEA in relation to the probable cumulative effects of the proposed project, which I have summarized below in Comment 2.8.

Comment 2.1 Stream Flooding in Puako

Since moving to Puako in 1999, I have witnessed several flash-flooding events from Kamakoa Gulch which have been large enough to require the closure of Puako Beach Drive at the point of discharge, and the opening of the escape road to allow the local residents to access the community. The wet winters of 2001-2002 and 2003-2004 were particularly notable ones in this respect.

Kamakoa Gulch originates high on the slopes of Mauna Kea and follows a 23-mile-long course to Puako, crossing under the HI-19 highway then turning southwest and continuing to a point just mauka of Puako Beach Drive. A short distance before meeting Puako Beach Drive, Kamakoa Gulch is diverted to the southwest by an artificial drainage ditch, constructed many years ago to protect the community of Puako from flash-floods. The gulch and the diversion ditch are colored in aqua on **Figure 1** below.

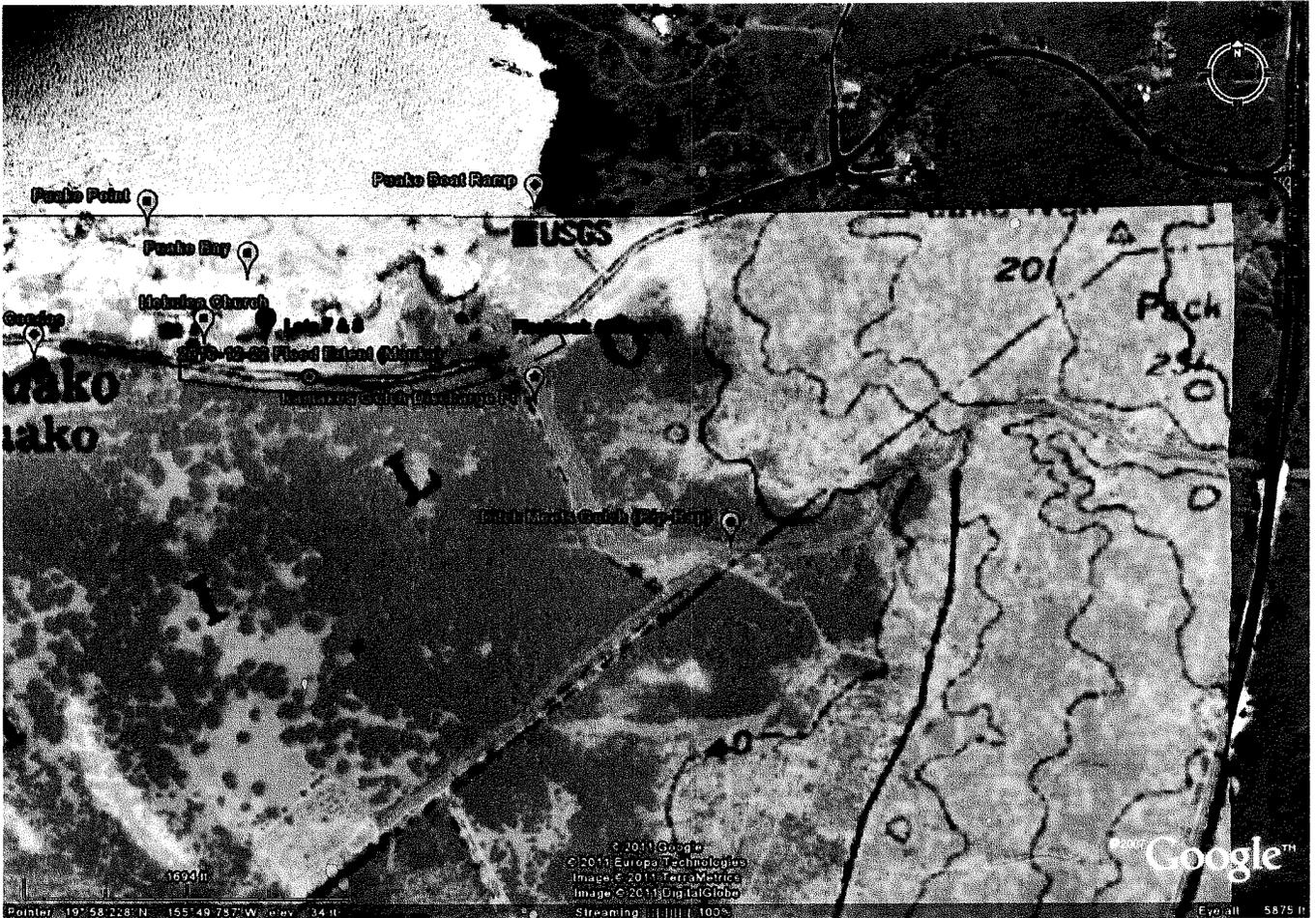


Figure 1: GoogleEarth Image Overlaid with USGS Quad Map; Stream and Ditch Colored In

The blue marker located toward the center of **Figure 1**, labeled **“Ditch Meets Gulch (Rip-Rap)”**, shows where the artificial ditch intersects the natural watercourse. At this point of intersection the makai side of the ditch was armored by a barrier of large rocks or rip-rap, evidently intended to keep it from being eroded away at the sharp bend where it connects with the gulch. This barrier may have been effective in the past, but in recent years the ditch had become shallower at this point due to the accumulation of sediment, and it had also become partially blocked by fallen trees and debris.

Because the rock armoring at the junction of the diversion ditch and Kamakoa Gulch had not been maintained for a long time (perhaps not since it was installed), floodwaters gradually eroded their way around the barrier. The result was that during large flash-flood events some substantial portion of the floodwaters were able to regain their original course, flowing down the former stream channel and discharging onto Puako Beach Drive near the blue marker labeled **“Kamakoa Gulch Discharge Pt”** on **Figure 1**.

The usual path to the ocean taken by the floodwaters in these events was to cross Puako Beach Drive at the low point in the road just across from the discharge point (i.e., at the intersection of **Parcels 1 and 2**), and from there to enter the ocean in the vicinity of the small, relatively enclosed cove adjacent to the Puako Boat Ramp, as shown on **Figure 1**.

Comment 2.2

The Flood Event of December 22, 2010

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One of the first flash-floods since the events of 2004 that was large enough to require the closure of Puako Beach Drive occurred on Dec 22, 2010. This flood was caused entirely by the heavy rains that fell from a thunderstorm on the upper slopes of the watershed mauka of Mamalahoa Highway; no rain at all had yet fallen locally in Puako when a flash-flood came down Kamakoa Gulch and burst out onto the main road (where I just happened to witness it, as I was walking by at the time).

Even though it only lasted for a brief few hours as compared to some previous events, the flood of Dec. 22, 2010 was particularly notable because of the unusual spreading-out of the floodwaters far to the west of the point where runoff from the gulch normally crosses Puako Beach Drive. The probable reasons for this are not hard to find.

A basic principle of soil conservation is that dense vegetation not only helps hold the soil in place with its roots, but also slows down the velocity of runoff to the point where the floodwater no longer has enough energy to transport all of the sediments that it has eroded from the land. This is why loggers in most places on the mainland, for example, are required to leave strips of vegetation along streams when the surrounding forests are clear-cut. In this regard, the more dense, tangled, deep-rooted, and continuous the vegetation, the better it functions to slow down the water and cause sediment to drop out of suspension.

During past flood events in Kamakoa Gulch, a major mitigating factor was the presence of just such a dense, tangled, deep-rooted forest of kiawe trees along both sides of Puako Beach Drive in this area, and also in the area of the proposed project (**Photos 06-a-b**).



Photo-06a: Mature Kiawe Forest on Parcels 7 & 8, Looking Mauka from Ocean



Photo-06b: Mature Kiawe Forest on Parcels 7 & 8, Looking E on Puako Beach Drive

Over the long term, the roots of trees and the accumulated deadfall and debris under the tree canopy have contributed to the deposition of large quantities of eroded sediment that would otherwise have entered the ocean. Evidence for the efficacy of this kiawe forest in sediment-retention can be readily seen; it is the deep layer of almost powder-fine soil that has been deposited on the flat land adjacent to the road in this area. This same dense stand of kiawe vegetation also inhibited the floodwaters from spreading very far to the west, ensuring that most of it ran into the ocean in the vicinity of the small cove adjacent to the Puako Boat Ramp, as mentioned above.

However, today the situation is very different at the place where Kamakoa Gulch discharges onto Puako Beach Drive. Following a major wildfire that threatened the Puako community in 2007, a wide strip of kiawe forest on the mauka side of the road was clear-cut to create an emergency firebreak (this is the area shown within the red outline on **Figure 2** below). The bare ground was then covered by a layer of wood-chips in an attempt reduce wind erosion of the soil (a severe problem due to the very fine nature of the sediments) and to suppress the regrowth of vegetation.

The flash-flood of Dec. 22nd, 2010 was the first such event to occur since this firebreak was clear-cut.

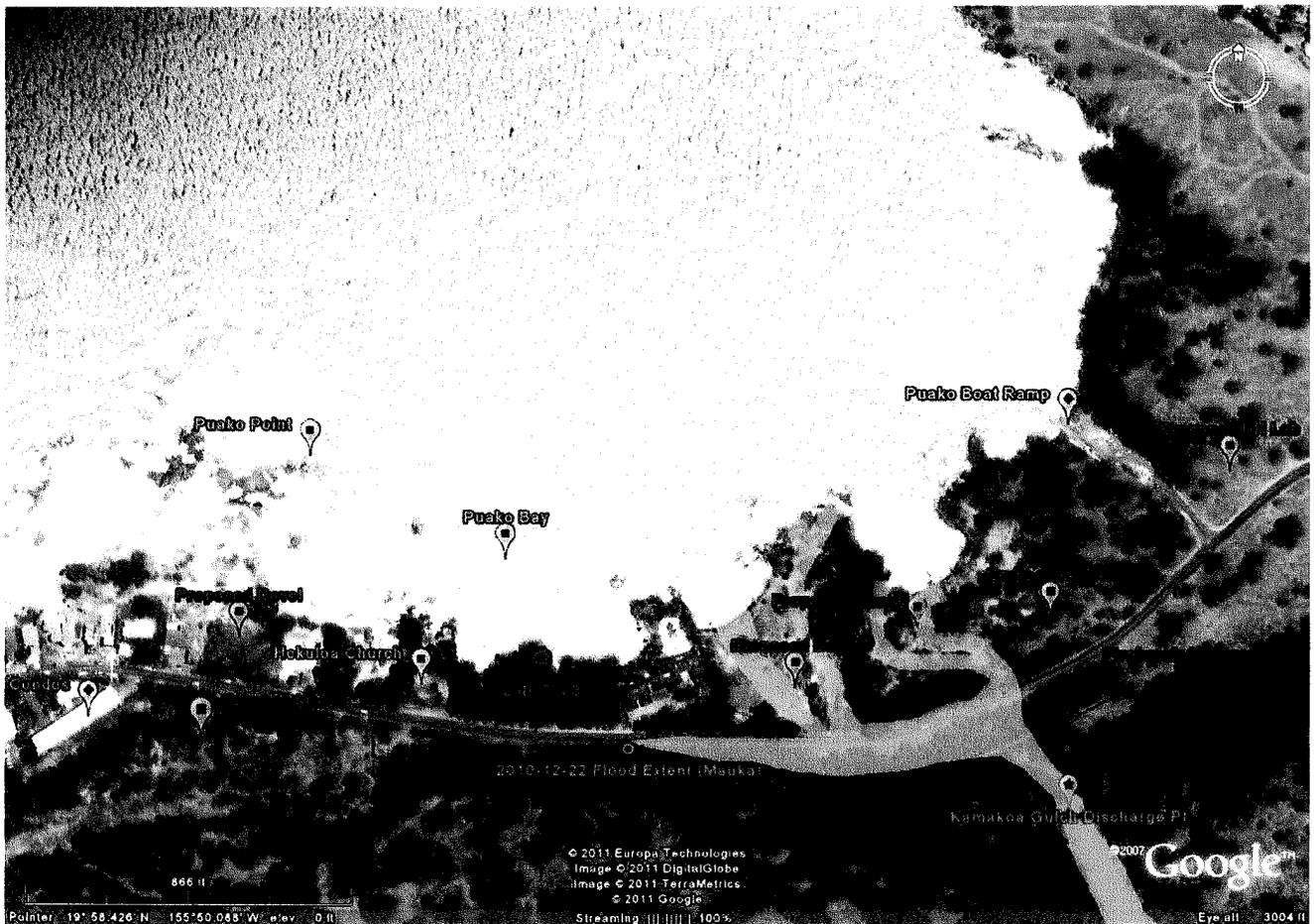


Figure 2: GoogleEarth Image; Dec. 22, 2010 Flood Extent, Labeling, and Other Features Added

8 As an unintended result of this clearing, the floodwaters of Dec. 22nd – now no longer retarded by the dense growth of kiawe forest – were able to flow at high velocity to the west, through the firebreak area and along Puako Beach Drive. As shown on **Photos-06c-e**, flooding from this event extended all the way to the point marked “**2010-12-22 Flood Extent (Mauka)**” on **Figure 2**. This is located right at the eastern end of **Parcel 7**. In more than a decade that I have lived in Puako, flooding from Kamakoa Gulch has never extended this far along the road to the west, even during the much longer-lasting flood events of 2001-2002 and 2003-2004.

The fast-flowing floodwaters removed much of the wood-chip ground cover from the firebreak, along with large amounts of the very fine sediment that constitutes the soil in the firebreak area. As an example, **Photo-6f** shows the erosion that occurred on just one small area of the firebreak next to the main road. This shot was taken across from the Sullivan residence at **Parcels 5 and 6**, and a long way west from the discharge point onto Puako Beach Drive. Erosion in the firebreak was much more severe closer to the discharge point.



Photo-06f: Looking E at Erosion in Clear-Cut Firebreak Across from Parcels 5 & 6

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Some portion of the Dec 22nd floodwaters did take their old route as shown in **Figure 1** (i.e., from the discharge point of Kamakoa Gulch directly across Puako Beach Drive, through **Parcels 2 and 3**, then into the ocean at the small cove mentioned above). However, it appears that the greatest portion of the floodwaters took what is currently the path of least resistance, and flowed into the ocean through the cluster of completely-cleared private lots located between **Parcel 3** and **Parcels 5 and 6** (the Sullivan residence).



At the entrance to these private lots (**Photos-07a-b**) the force of the water at the peak stage of the flood was so strong that it tore a metal gate right off its hinges, and caused even more soil to be eroded from the bare ground surface on these lots. All this sediment-laden water then poured directly into the ocean, resulting in a severe pulse of turbidity in Puako Bay.



Photo-07a: At Completely-Cleared Lots Looking E; Initial Stages of Flooding on Dec. 22, 2010



Photo-07b: At Gate to Completely-Cleared Lots Looking E; Initial Stages of Flooding on Dec. 22

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It is significant for our purposes that the most western point reached by the floodwaters was just across the main road from the east end of **Parcel 7**, i.e., at the east end of the proposed project site. There is presently a heavy growth of kiawe forest covering the entirety of **Parcels 7 and 8** (**Photos-6a-b and Figure 2**). If the Dec. 22nd flood had been longer-lasting and/or more severe, and had extended any farther to the west, this kiawe forest would have functioned to retain much of the debris and sediments that otherwise would have entered the ocean across **Parcels 7 and 8**.

*But **Parcels 7 and 8** are precisely the ones from which the existing kiawe forest would be removed under the proposed development by Hokuloa Church (see the site plan in Part 1.1 of the DEA). It has not been demonstrated or even convincingly argued in the DEA that the proposed installation of an open, cultivated, garden-like area of plants – whether native, Polynesian, alien, or whatever – would do as good a job of sediment-retention as the existing dense, deep-rooted kiawe vegetation.*

Comment 2.3

Vegetation Clearing on Private and Public Lands in Floodplain and Adjacent to the Shoreline

Figure 3 below (adapted from a National Ocean Survey reef-mapping project – see N.O.S. 2000 – 2002) shows the distribution of coral-dominated habitats in Puako Bay (outlined by me in red). Note the proximity of these habitats to the project site, and to the other areas on land that were affected by the Dec. 22, 2010 flash-flood event.

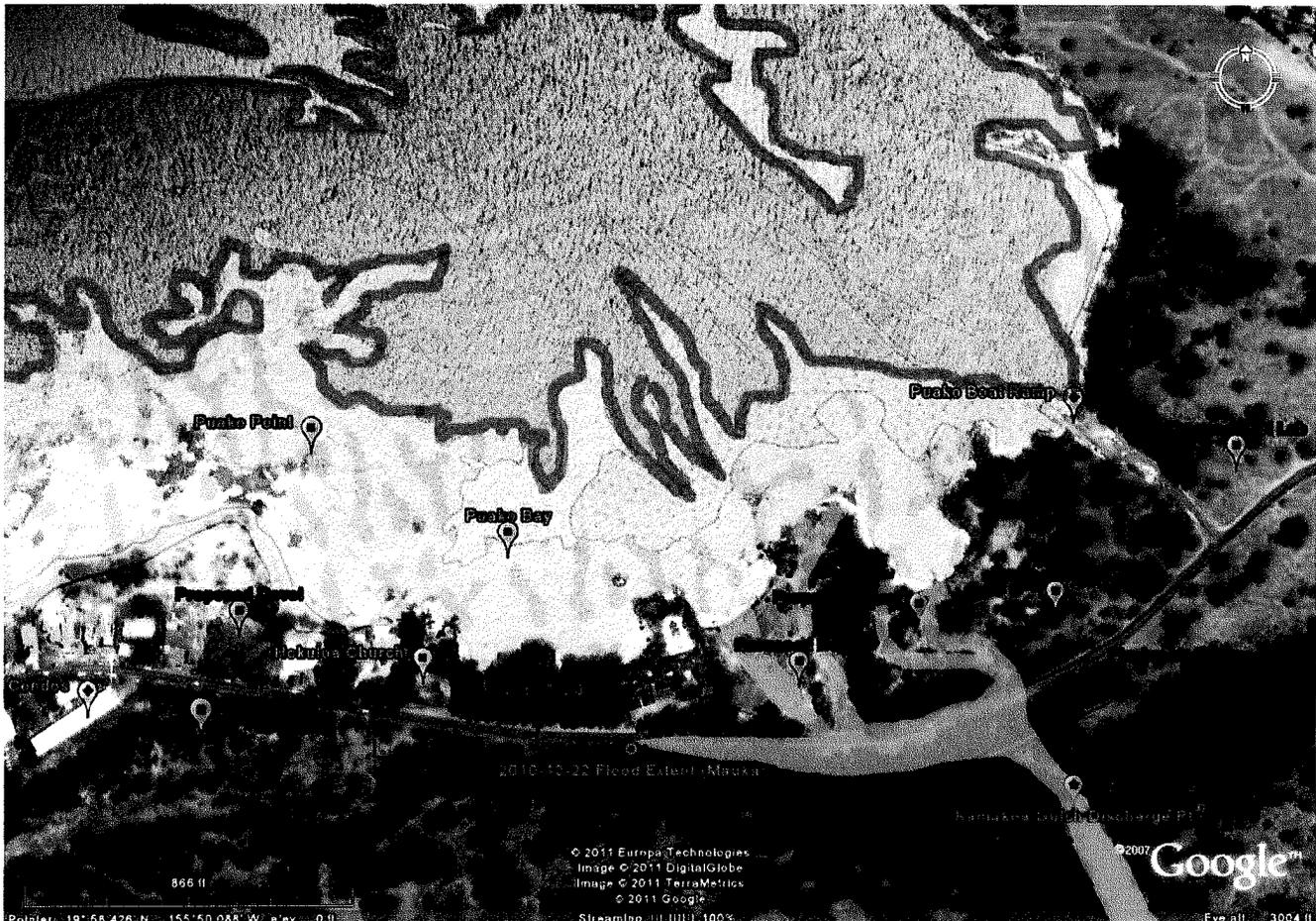


Figure 3: Same as Figure 2, but Overlaid with 2002 N.O.S. Coral Reef Habitats Map

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In the flood of Dec. 22, 2010 the route taken by the main discharge into the ocean was through the cluster of private lots located close to the proposed project area, to the west of **Parcel 3** and just east of the Sullivan property (which is the large cluster of structures with brown roofs on Figure 3 above). The primary reason this occurred is that, *for at least 3 1/2 to 4 years prior to the flood*, almost all of the vegetation on those lots had been completely removed right down to the bare earth, and then the lots were continuously maintained in that bare condition. Even today, virtually the only vegetation on this area is that growing on the narrow and eroding public-access strip running along the shoreline of these lots. This comprises a few coconut trees and a fringe of widely-spaced single kiawe trees, providing very little shoreline erosion control and essentially no sediment-and-debris retention capacity during a flood (**see Photo-07c**).

Presumably this clear-cutting was done by the owners to show off the lots and to open up the ocean view so as to make the lots easier to sell – which seems to be a fairly common real-estate practice in Hawai'i. It is incredible that this total clearing was permitted by the county in the first place, but it is a real travesty that after all these years the state and county agencies responsible for environmental management, including DLNR, *have still not required revegetation and/or erosion controls to be installed on this property – located as it is in the floodplain of Kamakoa Gulch on this extremely sensitive shoreline area adjacent to arguably the best coral reef on the main Hawai'ian islands.*

Figure 4 is an enlargement of **Figure 2**, a GoogleEarth image that was captured *sometime prior to the clearing of the firebreak in 2007* (the firebreak is the area enclosed within the red line, which has now been clear-cut but was covered in dense kiawe forest at the time). I have overlaid this aerial image with the TMK Tax Map. On the left of the image are the completely-cleared private lots that acted as a conduit for the floodwaters in the Dec. 22, 2010 flash-flood.

On the right of the image are partially-cleared shoreline areas located on private and state lands. Note also the apparent extent of shoreline recession since the TMK Map was made, which has submerged a sizeable area of former state lands in the small bays to seaward of the private parcels. In these areas essentially no buffer remains between the developable private lands and the ocean – one can see lot boundary posts and irrigation piping right on the shoreline.

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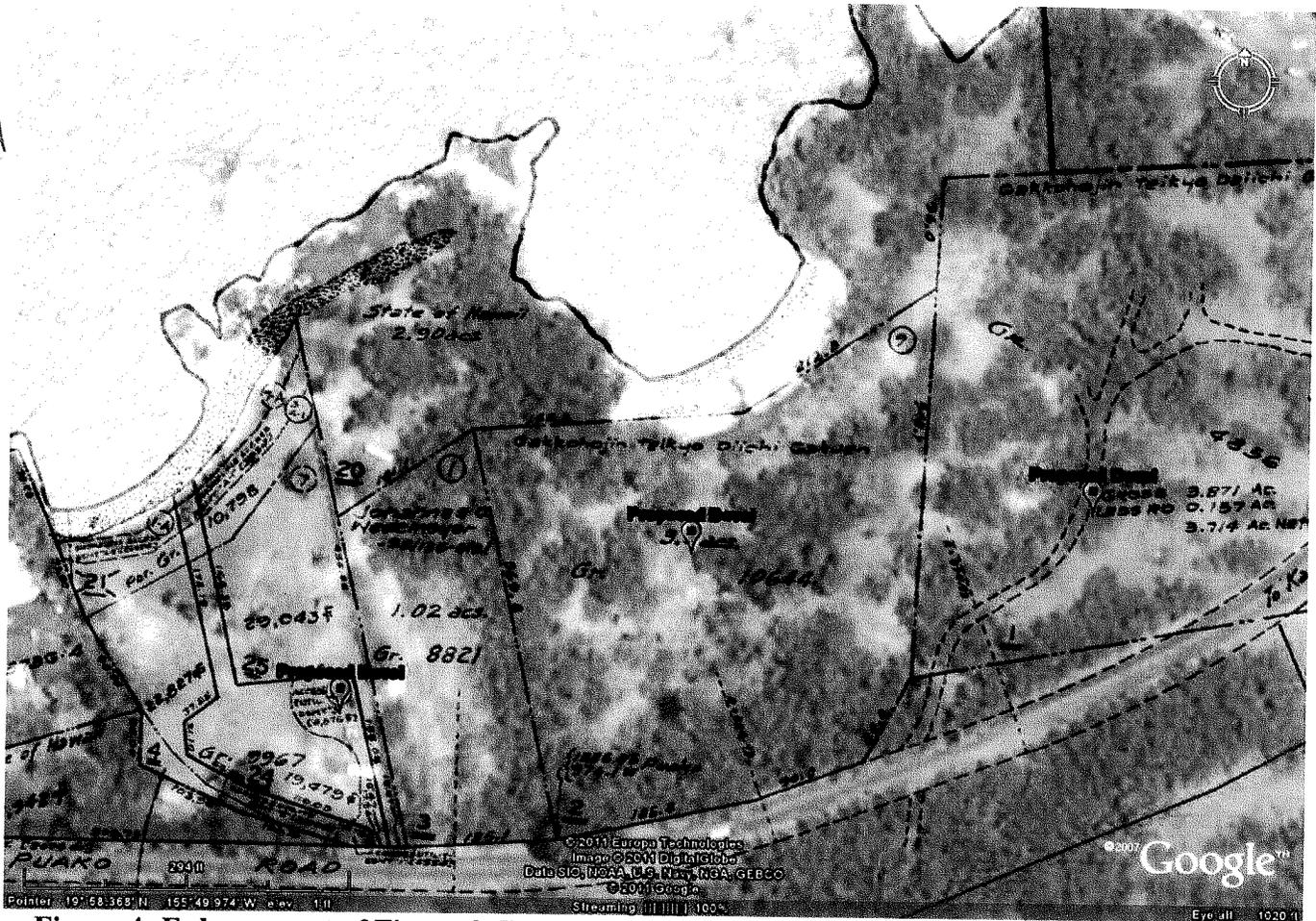


Figure 4: Enlargement of Figure 2 (Image Captured in 2007 or earlier), Overlaid with TMK Map

Photo-07c below was taken on Mar 8, 2011, following the re-grading of the completely-cleared private lots shown on the left side of **Figure 4** to obliterate the erosion scars of the Dec 22, 2010 flood. The path leading to the shoreline has been re-graveled, and the torn-off metal gate has been replaced with an elegantly simple chain (and a very functional chain it is, too; with a much lower hydrodynamic drag factor than the old gate!).



Photo-07c: Completely-Cleared Lots Restored to Their Pre-Flood Condition Mar 8, 2011

Photos-07e-f show the shoreline of this same private property looking mauka; note the evidence of shoreline recession (such as the washed-out fallen tree), and the man-made shoreline armoring.

A comparison of **Photos-08h and 08i** (below), taken during the Dec. 22, 2010 flood event, shows how the brown sediment cloud spread outward from the completely-cleared lots pictured above (which is where the bulk of the floodwaters entered the ocean). The sediment cloud then spread both eastward towards the Boat Ramp and westward toward the project site. It also spread towards the reef, eventually enveloping the rowboat that was anchored well offshore and directly in front of the denuded lots.

The project site can be seen between the left edge of **Photo-08h** and the Church; the brown A-frame house to the right of the church is the Pickering's. The angle of view on **Photo-08i** is different; here we are looking mauka over the top of the anchored rowboat and directly towards the completely-cleared lots, with the Sullivan property on the right.

The large amount of sediment flushed into Puako Bay by the single short-lived flooding event of Dec. 22nd shows that there are very serious existing problems with erosion and sedimentation control in the floodplain of Kamakoa Gulch. I submit that it makes no ecological sense to allow the Hokuloa Church's proposed project to remove large existing areas of very dense shoreline vegetation, only to replace it with an open garden-like area of native and Polynesian plants that (I believe) will have less sediment-retention capacity.

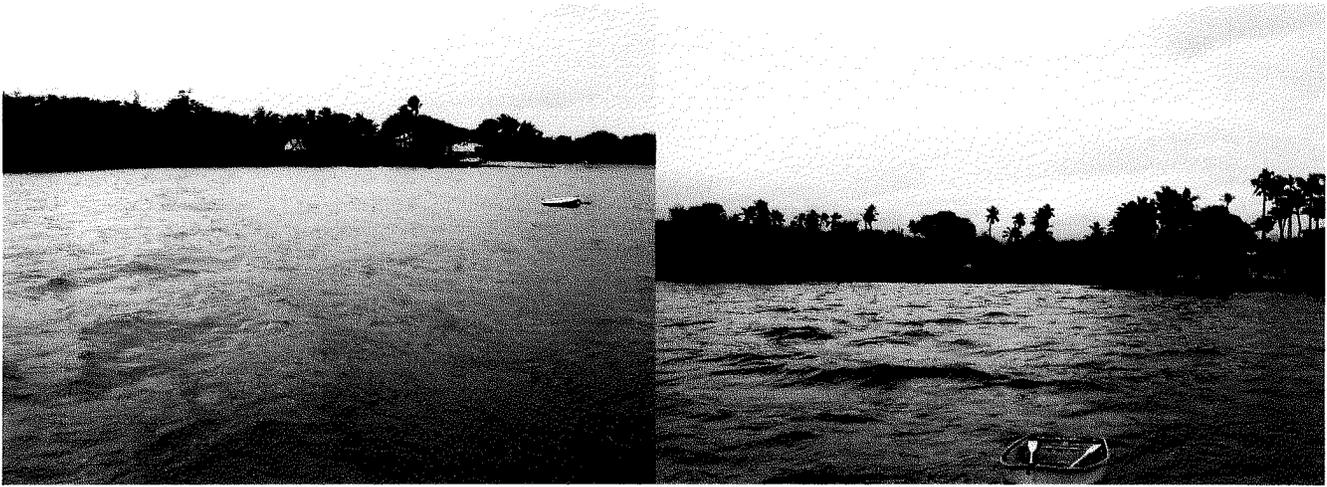


Photo-08h: Sediment, Project Site in Backgrnd Photo-08i: Sediment Spreads Beyond Rowboat

Photo-8a shows the height reached by the Dec. 22 floodwaters from Kamakoa Gulch, as indicated by the flood debris hanging in the trees, just a few tens of yards mauka of the firebreak along the dirt road leading to the diversion ditch. **Photos 8b-i** show the extremely fine nature of the exposed sediments in the firebreak itself, the piles of fine mud that were scraped off Puako Beach Drive by county workers, one of the channels carved out by the floodwaters on the makai side of the main road, and additional views of sediment in the ocean water.

Vegetation has also been cleared from portions of the private properties at **Parcels 1 and 2** that are located directly in the path of floodwaters from Kamakoa Gulch, and also from parts of the state-owned shoreline lands adjacent to them (**Photos-09a-g**). Also on state land makai of private **Parcel 3** there is a wide, un-vegetated area (evidently used as a roadway), where the floodwaters came through with a velocity high enough to cause erosion (**Photo-10**).

Vegetation removal in all of these areas that are subject to recurrent flooding has no doubt resulted in more sediment input to nearshore waters than would otherwise have occurred. It should also be noted that at least some of these private lots have recently been sold, and they will most likely be subjected in the near future to even more vegetation clearing and re-grading for whatever development take place here.

There seems little reason to think that the government agencies involved in permitting developments will give any more consideration to erosion and sedimentation-control issues in the future than they have in the past. In fact, current funding difficulties, and very recent changes in the state's conservation laws that allow removal of alien species like kiawe without first obtaining a permit, suggest to me that their future oversight will be even less. This bodes ill for the prospects of a healthy Puako Bay system .

10 *All of these soil erosion and sedimentation problems on lands subject to flooding by Kamakoa Gulch and located close to the Hokuloa Church's proposed project remain unresolved at the present time, but are not discussed in the DEA.*

**Comment 2.4
Firebreak Clearing, Flooding, and Soil Erosion**

11 Few residents of Puako would dispute that the firebreak created in 2007 was a welcome element in protecting the community from wildfires at the time, and that it continues to be so now. Nevertheless, it cannot reasonably be denied that it has also worsened the problems of soil erosion, both by wind and by floodwaters coming from Kamakoa Gulch (e.g., see **Photo-06f**, above). More to the point for our purposes

11 here, it has substantially increased the chances that the proposed project site may be seriously affected by stream flooding sometime in the future.

Consider the following facts: (a) the clear-cut firebreak mauka of Puako Beach Drive extends from the vicinity of the Kamakoa Gulch discharge point and westward across the entire width of the proposed project site, as shown on **Figures 2 and 3** above; (b) the soil of the firebreak consists of extremely fine, very easily-erodible sediment; (c) floodwaters from the brief but intense flash-flood event of Dec. 22, 2010 extended along the road and the firebreak all the way to the eastern boundary of the proposed project on **Parcel 7** (see **photo-documentation**); and (d) there is no reason to dismiss the possibility that future flooding may be more intense, longer-lasting, and extend even farther to the west, so that the project site may well be directly impacted.

Subsequent to the clearing of the firebreak, the area was seeded with grass in an attempt to control soil erosion. But the seeded grass failed to grow well during the drought, and aside from some 'volunteer' grasses and other weeds – and of course some kiawe regrowth – much of the firebreak remained bare of vegetation. The Puako Community Association then covered the bare soil of the firebreak with a layer of wood-chip mulch, which has at least helped to some extent to control the wind-blown dust problem. However, wood floats, and the flooding event of Dec. 22nd has clearly demonstrated the inadequacy of such measures to control soil erosion from the firebreak and sedimentation into Puako Bay.

Relatively simple and inexpensive steps could (and should) be taken to revegetate the small area of the firebreak that is most vulnerable to flood erosion; i.e., *in the immediate vicinity of the point where Kamakoa Gulch normally discharges when it breaks through its banks* (I am not suggesting that all of the firebreak should be revegetated, which would be counter-productive to say the least).

Dense, drought-hardy, salt-tolerant, deep-rooted vegetation requiring no maintenance (kiawe, for example) could be used for this purpose, and it could then be brush-cut on a regular basis to reduce the fire hazard while leaving the lower stems and roots intact to hold the soil. [No doubt, some people would advocate that any revegetation should be done with native or Polynesian species of trees and shrubs, but in this particular arid environment – short of continuous and expensive maintenance activities – they would easily be out-competed by kiawe. For more on this, see Comment 2.6 below]

At present, however, the Puako Community Association continues to grub out all the kiawe regrowth that has appeared in this area of the firebreak, and it continues to spread wood-chip mulch as the only attempt at firebreak erosion control – *and this in an area with extremely fine sediments that has been repeatedly subjected to high-velocity runoff events from Kamakoa Gulch!*

These ongoing problems on state conservation lands just to the east and directly mauka of the proposed project remain unresolved and will continue to contribute clouds of dust to the air and sediments to the nearshore waters, but there is little or no discussion in the DEA to relate this existing situation to the potential cumulative impacts of extensive shoreline vegetation clearing by the project.

Comment 2.5 Kamakoa Gulch Diversion Ditch

Some months after the Dec. 22, 2010 flash-flood, the channel of the diversion ditch was cleaned of fallen trees and other debris by bulldozer, and also deepened. At the time that I last visited the site in mid-May 2011, the large boulders which had been placed many years ago at the junction of the Gulch and the ditch as

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a bank-stabilization measure (and which had eventually failed, leading to flooding of Puako Beach Drive) were now completely buried under a new channel bank of totally bare dirt.

This dirt (actually the same kind of very fine, loose and powdery sediment found in the firebreak), had simply been formed into the shape of a channel bank and then left with no apparent attempt at re-vegetation or any other type of bank-stabilization measures that I could see. The same was pretty much true for the banks of the diversion ditch to the south-west, but at least they do not take the sharp bend that the ditch-Gulch junction does at this point. It was a trade-wind day, and every gust stirred up great clouds of sediment that would then blow away on the wind. When the wind can blow away this much dirt, you have to wonder how much damage a flash-flood could do.

I don't know if there are plans afoot to do any kind of bank stabilization work here, and (given adequate rainfall) there will doubtless be some natural regrowth of grass, weeds, shrubs, and eventually trees. I'm not a hydrological engineer, but unless I am seriously mistaken it would not require very many episodes of stream flooding to erode the junction of the ditch and the stream right back to the level of the original rip-rap. Once this happens the conclusion seems obvious – the stream will again break through the bank and we will again be seeing flooding on the road and along the firebreak. Only this time, due to the extensive channel disturbance and vegetation removal from the banks, the sedimentation will probably be significantly worse. The ocean, naturally, will be the ultimate recipient of these sediments.

The potential for increased sedimentation makes this matter relevant to the subject at hand; i.e., existing problems that may be exacerbated by the cumulative effects of the project.

also (3) (7)
Comment 2.6

On-going Cutting of Kiawe Forest Trees and Removal of Deadfall on Parcels 7 and 8

Some person or persons have been busily chain-sawing and removing kiawe trees, fallen trunks and branches from the state land on **Parcels 7 and 8** over the past few months, so that the ground under the forest canopy is now much more open in some areas than it was on Mar 10, 2011 when **Photos-06a and b** were taken. This clearing activity has already somewhat reduced the sediment-retention capacity of the kiawe vegetation by creating holes and open pathways through to the water in what was formerly a very dense mass of trunks, deadfall, branches, and leaf litter that formed a layer on the ground surface.

This constitutes an adverse environmental impact and needs to be stopped, because the kiawe forest with its thick, almost impassable ground layer – aesthetically unpleasing as it may be to some – is nonetheless an already-existing, effective, and durable barrier to sediment-laden floodwaters.

If you were looking for vegetation well-suited for sedimentation control in Puako in the especially difficult environment for plants that exists on **Parcels 7 and 8**, what you would want is something that is salt-tolerant; requires no care; is tough enough to grow in dense stands on the thinnest of soils or even on pahoehoe; is deep-rooted enough to reach sub-surface sources of fresh or brackish water; is woody and strong enough to resist being torn out by floodwaters, storm waves, tides, or even small tsunamis; and creates a thick, tangled ground layer of leaf litter, twigs, branches, and large deadfall that will slow down fast-moving water to the point where it will drop its load of suspended fine sediments.

*In short, what you would want for good sedimentation control on this part of the rocky Puako shoreline with its underlying groundwater lens, is vegetation pretty much identical to the mature kiawe forest that is already growing on **Parcels 7 and 8**, only you'd want it to be less disturbed by cutting and more dense and tangled, if possible.*

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The DEA (p. 11) says, "Kiawe is well-adapted to dry areas where groundwater lies within a few dozen feet of the surface, and for this reason it is almost ubiquitous on the arid coasts of all the Hawaiian Islands, where the basal freshwater aquifer leaks out to the sea. Whereas rainfall can damage flowers and fruits, groundwater is ideal for the proliferation of kiawe. It is slow to spread on its own in Hawai'i and is owes most of its dispersal through cattle dung..."

However, if you wanted your shoreline vegetation to be composed mainly of native and Polynesian plant species like those that may have been there in early historical times, then you would appear to be out of luck *if you also want it to function as a good and durable sedimentation barrier in the face of stream flooding.* While a hedge of salt-tolerant naupaka planted along the shoreline for sedimentation control could be dense enough to do the job, it would most likely be ripped out by a flash-flood that could tear a metal gate clean off its hinges, as actually happened to the gate at the entrance to the completely-cleared lots during the height of the Dec. 22nd event.

Most of the other native species previously found in the area probably would not form dense, durable, deeply-rooted, and continuous stands. The DEA (p. 11) says, "... the natural shoreline in the dry parts of the Hawaiian Islands was sparsely vegetated, dominated by low-growing pantropical vines, herbs, and scattered specialized shrubs or trees such as kou (*Cordia subcordata*) and hala."

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Because native and Polynesian plants lack the adaptations that the alien kiawe possesses so abundantly, the 'sparsely-vegetated' plant communities that would result from any attempt at a true native plant community or ecosystem restoration project using such species would be completely unsuited for sedimentation control from stream flooding, and the natives would soon be out-competed and replaced by kiawe in any case.

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Of course, what is being proposed in the DEA is not a true native ecosystem restoration but rather a sort of gardening project, which raises another concern. The ground elevations at the project site are minimal (p. 11 DEA says maximum elevation is 10 ft, although that seems rather high to me), and the substrate is said in several places to be mostly pahoehoe. *That would seem to indicate a need to bring in lots of soil to support all that landscaping, which could very well end up in the ocean during a flooding event, but the DEA makes no mention of this aspect of the project.*

Also not mentioned is how the site might be regraded and the existing ground contours might be changed. *If the site were to be flood-proofed (e.g., by building a berm), that would only divert floodwaters onto neighboring properties; another potential impact that is not dealt with in the DEA.*

These concerns about soil emplacement and regrading need to be addressed.

Comment 2.7

Purpose of the Proposed Project, and Alternatives Considered

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Unfortunately, the Church has chosen to adopt a pre-packaged, 'all or nothing' approach to their proposed project. The DEA states (p. 10) "This EA considers the No Action Alternative as the baseline by which to compare environmental effects from the action. No other alternative uses for the property are desired by the Foundation and thus none are addressed in this EA."

It is the Church's right to limit itself in this way if it so chooses, but it makes for a very inadequate discussion of alternatives, and clearly does not exhaust the reasonable options. It also leaves reviewers no choice but to recommend the 'No Action' alternative if they do not buy into the entire development package exactly as it is presented in the DEA.

1 Other than the proposed project, only two other uses of the property are even mentioned as possibilities in the DEA: (a) take No Action; or else (b) build a Sewage Treatment Plant! It is clear from the outset that the latter suggestion is a non-starter; it is simply used as a foil so that the consultant can have something with which to fill in the required 'Alternatives' section of the DEA. He can then say that 'other uses of the property [were] evaluated but dismissed from further consideration', which is in fact the heading of DEA section 2.3.

As summarized in the DEA (p. 1), "The purpose of the requested lease is twofold: 1) to allow restoration, maintenance, and operation of the Church as an active and living historical site open to the public and related purposes on **Parcel 9**; and 2) to create a scenic landscaped vista protecting the historical integrity of the Church and allowing space for outdoor Church activities on the other properties. The vegetation's thickness makes it nearly impossible to walk through and discourages any sort of use. Historically, Church members could land canoes and other small boats from other places in Puako in this spot to attend the Church and the school on **Parcel 7**."

On p. 8 of the DEA it says, "Unrelated to any need or request by the Church but a requirement for the lease by the state of Hawai'i would be the subdivision of Parcel 9 and Parcel 10 to enable transfer of the portions of these parcels that extend into the Puako Beach Drive right-of-way to the control of the County of Hawai'i, which maintains this road. Any remnant property on the *mauka* side of Puako Beach Drive would be consolidated into 6-9-001:015, a State of Hawai'i property within the Conservation District. The consolidation-resubdivision action will also accommodate recently adjusted access and utility easements for the neighboring properties."

Regarding purpose #1 for the lease request as stated above, to me it seems logical and fair that the Church might want to seek some sort of consolidation-resubdivision action to compensate it for those areas of Parcel 9 that it is unable to use under its current lease (due to the construction of Puako Beach Drive across a portion of it). To the extent that this concerns the core historical site on **Parcel 9**, as well as an additional area on **Parcel 10**, I know of no good reason why these actions should not be taken. *However, I do have many concerns about almost all of what is proposed in the DEA for **Parcels 7 and 8**.*

13 Regarding purpose #2 for the lease request as stated above, the DEA does not explain how creating a "scenic landscaped vista" on **Parcels 7 and 8** can contribute in any way to "... protecting the historical integrity of the Church." No evidence is presented in the DEA that such a "scenic landscaped vista" ever existed on or adjacent to the Church property at any time in the historical past.

14 *The description (DEA pp. 11-12) of the probable vegetation in early historic times in the dry coastal landscapes such as Puako, seems to bear little resemblance to the artificially-landscaped, garden-like project that is being proposed by the Church. Indeed the only point of contact between the two (other than a species list) seems to be that those early landscapes were also open areas dominated by native and Polynesian plant species. That's it.*

15 While "... allowing space for outdoor Church activities on the other properties" may be desirable from the narrow point of view of the Church, it is not made clear why the large clear-cutting and landscaping project described in the DEA for **Parcels 7 and 8** would be in the best interests of either the state, the Big Island, or the Puako community, given the other concerns raised in this document.

16 **Comment 2.8**
Cumulative Effects of the Proposed Action

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Contd

In light of the *existing* environmental problems in the immediate project area that I've described above, I feel that the issue of the potential *cumulative* environmental effects of the proposed project has been incompletely dealt with by the DEA, to say the least.

On DEA pp. 44 - 45 the negative impacts of constructing the project are dismissed as being at the most negligible and short-term, while the "... beneficial impact of further protection of the historic church and preservation of open space" is extolled. On p. 52 of the DEA it simply says, "As the action involves the consolidation of Parcels under a new lease which will help protect and preserve an existing church, and associated landscaping activities, no secondary effects are expected."

*On the contrary, I believe that the cumulative effect of the vegetation clearing that is proposed for **Parcels 7 and 8** may well be to cause increased sedimentation into Puako Bay, threatening vital community interests in maintaining the health of the marine environment.*

I believe that the 'highest and best use' of this state property is to remain as a vegetated buffer to protect the critically important coral reefs and other marine habitats from sedimentation impacts. This implies that instead of clear-cutting the existing kiawe vegetation, it should be left just as it is, except for efforts to restore those areas that have already been cut.

The DEA does not properly assess the consequences of removing all (OK, virtually all) of the existing kiawe forest on **Parcels 7 and 8**, which could significantly increase sedimentation into the ocean, should future stream flooding extend any farther to the west than it did during the event of Dec. 22nd, 2010. Leaving the root systems of the clear-cut kiawe trees in place (which is actually proposed as a shoreline erosion-control measure on DEA p. 18), would do little or nothing to slow down the water from stream flooding and allow the sediments to drop out of suspension before the floodwaters enter the ocean.

That said, it is obvious that sedimentation is one important factor in the equation but it is certainly not the only important factor. I have no quantitative way of assessing the net impact of the environmental problems listed above, or of quantifying the intensity, spatial extent and duration of the many current and potential threats to the 'health' (ecological integrity) of the terrestrial and marine environments. There are a wide variety of system stressors that can act in a synergistic manner to damage coral reefs (Teytaud 2001a), and not all of them are well-understood or well-measured.

This goes to the heart of the issue of evaluating Cumulative Effects. Exactly how to integrate the different factors and come up with predictions of system response remains a hugely difficult problem, and the expected changes in global climate and sea level only complicate matters further.

Many advances have been made in the time (more than a decade) since I wrote a summary report on these issues as they apply to Puako Bay (Teytaud 2001a), and more up-to-date studies are not difficult to find (e.g., Rodgers 2005). But what I wrote then about the problem of evaluating cumulative impacts still applies in the present context. Here is some of what I said:

Like all coral reefs today, the Puako reef system faces a variety of adverse factors, ranging from relatively intense short-term "events" to lower-intensity, longer-term environmental conditions. These adverse factors may be of natural, as well as anthropogenic (i.e., human), origin. The ongoing challenge for scientists and resource managers is to learn how to distinguish between natural and anthropogenic factors where possible, and to adapt their research and management techniques accordingly. Of course, there will always be some cases where such distinctions may be impossible to make, either due to lack of baseline information or because there are too many interacting factors to sort out...

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In our opinion, the wisest approach for local development planning and coral reef resource management in west Hawaii would be to adopt the precautionary principle that implies a "reversal of the burden of proof" (Dayton 1998) regarding cumulative impacts; i.e., removing the burden from the shoulders of the general public and placing it onto those of the development community. Although this will no doubt involve additional expense for developers, the potential for negative cumulative environmental impacts must be taken seriously, both in regional planning and in evaluation of the individual development proposals...

Richmond (1995), based on his research in Guam, made the following points that are very relevant in this context: "A critical point that needs to be clearly understood regarding coral reef studies (or any environmental assessment): Lack of data showing an activity is detrimental to the environment does not mean that activity is safe; it often means there is simply a lack of data..."

With all of the above in mind, I'll just conclude this section with a little 'thought-experiment': Take another good look at the lovely ocean-front property shown in the picture below (you saw this before under comment 2.3, but bear with me). Note the attractive vista -- blue sky and blue ocean, seen through the coconut palms and the thin fringe of well-spaced kiawe trees at the shoreline.



Photo-07c: Completely-Cleared Lots Restored to Their Pre-Flood Condition Mar 8, 2011

Your imagination now kicks into high gear and you start to daydream, perhaps something like this: Hmmm, looks like a great place to build a house, put in lots of tastefully-arranged gardens with gravel paths, maybe bring in some more dirt to build up the elevations a bit, landscape it with a nice selection of native and Polynesian plants and shrubs, definitely get rid of those spindly alien kiawe trees at the

shoreline (don't want 'em shedding thorns or polluting the seawater, after all, and it'll open up that wonderful ocean view and make it even better) – gosh, just look at that blue, blue water!

Now put the CD that I included as part of these comments into your CD player:

View the file with the video documentation of the Dec. 22, 2010 flooding at the completely-cleared lots [the file is named Video-01--FLOODING @ Cleared Lots (Dec 22, 2010).mp4].

Note the velocity of the floodwater coming down the street and down the firebreak, then rushing into the driveway. Realize that this is just the initial stage of flooding, when bystanders are still able to loaf around in the street marveling at the unprecedented sight, before beating a hasty retreat to the west as the waters rise. Notice the brief shot showing that the metal gate to these lots is still attached to the gateposts. Yep, that's the one that met its fate later, at the height of the flood.

Now, ask yourself:

If these lots were located at the project site, and if they were landscaped with a garden-like mixture of open graveled areas, scattered trees, and plantings of native and Polynesian herbs and shrubs in a design as similar as possible to the one described in the proposed project (see DEA p. 5), with a nice open view to the ocean, would that provide as effective a sediment barrier during a flash-flood as the existing dense kiawe forest on Parcels 7 and 8? (see Photos-06a and b above).

My personal guess is that the open, landscaped area described in the DEA surely would not be as efficient at sediment-retention as the existing kiawe forest vegetation. That's my judgment call, anyway. But I have no empirical data on this point – perhaps the Church's consultant has some?

Comment 4.0

Suggested Alternative

In this section I briefly outline what I would characterize as a 'reasonable alternative' to what is proposed in the DEA; i.e., one that would allow the Church to regain control over an area of land equal to that of the original **Parcel 9**, and thereby protect the historical resources. At the same time, this alternative would protect the environment by greatly scaling back the area of state lands to be cleared of the existing kiawe vegetation to facilitate 'outdoor Church activities.' Of course, the Church may not wish to even consider this alternative, but that's their right ...

From the TMK Map on DEA p. 4 and the Preliminary Landscape Plan on DEA p. 5, we see that the original area of Parcel 9 comprised a piece labeled as Parcel 9A on which the church buildings are located. Another piece labeled as Parcel 9B now lies under the Puako Beach Drive right-of-way, and a third piece labeled Parcel 9C lies in the Conservation District on the other side of Puako Beach Drive. 9B and 9C are the parts of the original lease-hold property which the Church says were rendered impossible or difficult to use due to the construction of Puako Beach Drive.

However, Parcel 9B includes a strip of the right-of-way shoulder area in front of Parcel 9A. This shoulder area is not unusable; it actually is routinely being utilized as a 'parking lot' whenever there is some Church or community function. The truly unusable portion of Parcel 9 is therefore the triangular area outlined by the intersection of the makai edge of the road pavement with the boundaries of Parcels 9B and 9C.

I have highlighted this unusable triangular area with a thick black line on **Figure 5** below (reproduced from the Preliminary Landscape Plan on DEA p. 5). I then made a white-paper cutout that has the same area as the outlined triangle (albeit cut into a different shape), and pasted it onto **Figure 5** along the western side of Parcel 8, as a comparison to the larger area that the Church wants to turn into a "scenic landscaped vista."

1 I want to stress that neither the particular location nor the shape shown for this white cutout has any particular significance, except that it should not be located on **Parcel 7** (because that is closer to Kamakoa Gulch and hence may be more prone to flooding impacts). It's just a visual representation of the area of **Parcel 9** that the Church finds it difficult or impossible to utilize, cut out and pasted over to **Parcel 8**. For the purposes of this discussion, let us simply refer to it as the 'white area'. The important point here is to notice how much smaller it is than the proposed landscaped area.

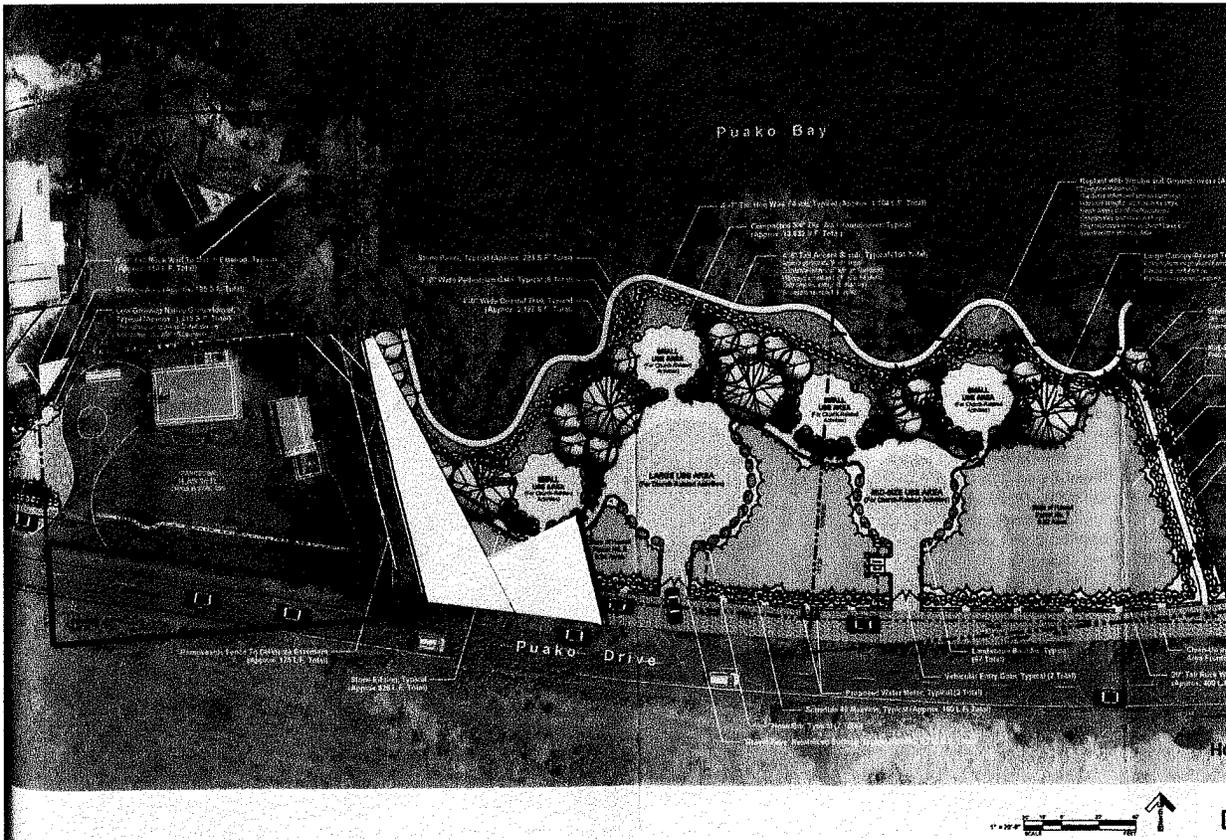


Figure 5: Comparison of Size of White Area with the Proposed 'Preliminary Landscape Plan'

For the Church to recover all of the acreage that was originally available to it before the road was put in, it only needs to get back control of an area equivalent to the following: (a) the whole of **Parcel 9A**; (b) a strip comprising the makai shoulder portion of the right-of-way on **Parcel 9B** (whatever its actual area may be); and (c) the unusable area (comprising remainder of **Parcel 9B** and the whole of **Parcel 9C**). In addition, the Church will have the continued usage (for free) of the makai shoulder area of the public right-of-way that it already utilizes as a parking area.

It appears to me that most or all of the strip of makai shoulder area from **Parcel 9B** could be easily accommodated in the **Parcel 10** acreage that the Church also desires to lease. This would then leave only an area similar in size to the 'white area' that would have to be located in **Parcel 8**.

The alternative I am proposing here is that the Lands Division of DLNR should take seriously its duty to address the environmental concerns I have raised throughout this document, and restrict the total area of any lease in **Parcels 7 and 8** to whatever is needed to restore the equivalent of the original acreage to the control of the Church. As I pointed out above, this should amount to a lot roughly the size of the 'white area' on **Figure 5**. The problem then reduces to finding a suitable location for this area.

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Although I suspect that the Church would prefer that the location of this lot be contiguous with **Parcel 9A**, there are a couple of real-world issues with this, one being the probable objections of the neighbors, and the other being the physical limitations of that site (discussed in Comment 5.0 below).

However, there does not appear to be any real necessity for the 'white area' to be placed immediately adjacent to **Parcel 9A** (it could be located somewhere else on **Parcel 8**, but connected to **Parcel 9** by a path or trail). That is something the Church would have to work out, depending on what use it wants to make of the reduced area. But wherever it is located, and whatever use is to be made of it, it is imperative that enough dense existing vegetation must remain between it and the presently existing shoreline (as opposed to the old shoreline shown on the TMK Map) to protect the marine environment.

Comment 5.0
Shoreline Recession Issues in Relation to the Suggested Alternative

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I would hazard the guess that a plot about the size of the 'white area' on **Parcel 8** may be small enough that it could be cleared to some extent and landscaped without undue environmental impacts (depending of course on its actual size, location, shape and design elements). However, when aerial imagery is compared with the Puako TMK Map (**Figure 6** below) it appears that a significant degree of shoreline recession has occurred on **Parcel 8** since the TMK Map was made, which raises important questions as to how much of the original acreage still remains above the high tide line, and how much area is actually available for an effective buffer between the ocean and any area that would be cleared and landscaped under my suggested alternative in Comment 4.0.

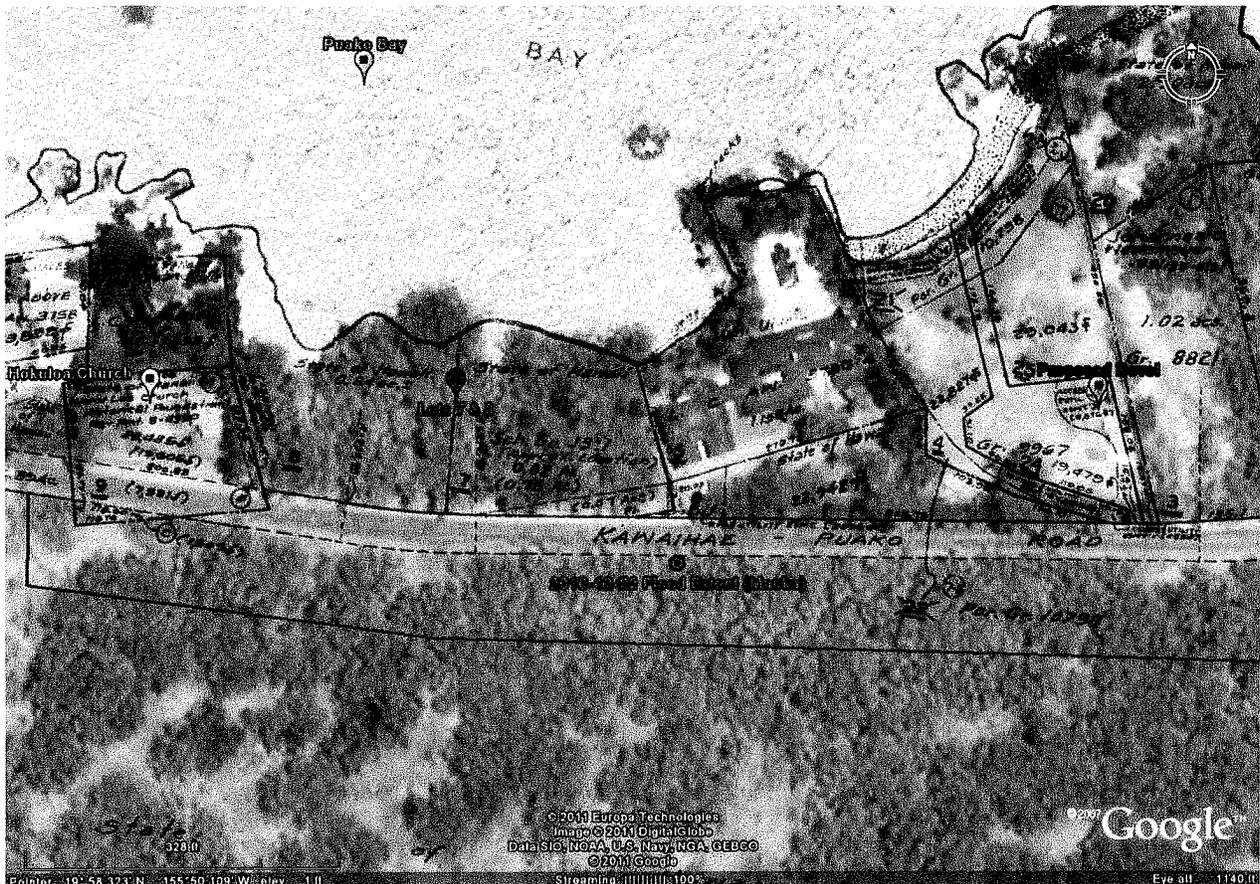


Figure 6: Comparison of Aerial Image from GoogleEarth with Overlaid TMK Tax Map

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My (admittedly crude) methods of visual comparison simply involved overlaying the TMK Map on an aerial image from GoogleEarth that pre-dates the clearing of the firebreak in 2007, and I make no claims that it approaches the accuracy of a ‘real’ map (although I will point out the excellent match-up for almost all features other than the shoreline, such as the road and the lot lines).

Be that as it may, the differences in shoreline configuration are too great to be passed off as simply due to errors on my part. It therefore seems obvious that a shoreline recertification survey is needed before any such project is approved, and that an adjustment in the parcel acreages will surely have to follow such a survey – but this is another topic not adequately covered by the DEA.

It is quite unlikely that our minimal tidal ranges can account for the differences between the TMK shoreline and that apparently captured on these aerial images. The DEA does not deny that shoreline changes may have occurred in the project area and at the project site. However, in response to the comments from neighbors who mentioned “shoreline erosion,” on p. 16 the DEA goes off on a long tangent about the role of “sea level rise” versus “erosion” (in the sense of the wearing away of the substrate) as a causative factor in shoreline changes. As far as the project site itself is concerned, the DEA plumps for the former over the latter. It carefully explains that the on-site substrate on **Parcels 7 and 8** is largely pahoehoe – which erodes very slowly – hence erosion of the rocks is not the likely culprit behind the shoreline changes. All very true.

But this academic type of discussion fails to address the real issue. Yes, the mechanisms behind ‘sea level rise’ and ‘shoreline erosion’ certainly are different from one another, but to most people it doesn’t much matter what the scientists call it. If portions of a site that were mapped as dry land some years ago are now underwater; the practical results are the same – reduction in parcel acreage; fewer project design options; in some cases loss of access; and various legal ramifications (not to mention a few major habitat changes).

So, to forestall a similar response to my comments, when I say “shoreline recession” I mean the landward retreat of the shoreline as the result of sea level rise and/or sinking of the shoreline and/or ‘true’ shoreline erosion. When I say “erosion” I mean specifically the ‘wearing away of substrate’ of whatever composition. When I say “sedimentation” I mean the deposition of fine particulate matter into the ocean, or the settling out of fines in the terrestrial environment as runoff is slowed down – which of the two meanings applies in a given situation should be apparent from context.

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Signed and Dated:

A. Robert Teytaud, June 18, 2011

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ADDENDUM TO:

Comments on the May 2011 Draft Environmental Assessment (DEA) for the Lease, Landscaping, and Usage of State-Owned Shoreline Lands in Puako by the Hokuloa United Church of Christ
By A. Robert Teytaud
June 18, 2011

Addendum dated June 21, 2011:

Please consider this as an additional Comment about existing conditions in the project area which could have adverse effects on the coral reef communities of Puako Bay, in relation to the possible cumulative effects of the proposed Hokuloa Church project.

19
On March 3, 2011 I observed what appeared to be the effects of herbicide spraying along the roadside in Puako at the point **where flooding from Kamakoa Gulch intersects Puako Beach Drive mauka of the boundary between Parcels 1 and 2**. The areas affected were clearly distinguishable by their brown color, and extended clear around the bend in the road and beyond to the vicinity of the Hokuloa Church building. By contrast, the weeds in the firebreak itself were quite green and healthy, indicating they had not been sprayed.

Yesterday, June 20, 2011 I encountered a man with a backpack sprayer applying some liquid substance to the roadside weeds in the same area. I stopped and asked him what the substance was, and he replied that it was the herbicide **RoundUp™**. I asked on whose behalf he was doing this, and he replied that he was doing it for the **Puako Community Association**, as part of firebreak maintenance (although as before, the herbicide was being applied to the roadside weeds, not the firebreak, suggesting that it was merely serving someone's aesthetic idea of what a 'clean' roadside should look like).

Let me just quote Dr. Robert Richmond on the likely effects of pesticides and similar substances on coral reefs, based on his research at the University of Guam (I previously quoted this same document in my 2001 report on the status of the Puako coral reef):

"Decreasing water quality is one of the most important factors affecting coastal reefs adjacent to human populations. Unlike sedimentation-induced mortality which is relatively quick and conspicuous, water quality changes can have more subtle, sublethal effects. These range from reduced growth rates, competitive ability, and fecundity, to interference with chemical communication between hosts and symbionts, conspecifics during reproductive events, egg-sperm interactions, and the response of larvae to specific metamorphic inducers. Bioassays are an accepted method for determining water quality, but are not well-developed for coral reef ecosystems. We are presently studying the effects of pesticides on coral reefs and have found that EPA accepted protocols do not work. Specifically, while concentrations in the water column are "below detectable limits," we have observed statistically significant reductions in larval settlement and metamorphosis rates on appropriate substrata treated with pesticide at a level of 5 PPB.

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cont'd

Appropriate protocols that focus on key processes like reproduction and recruitment rather than LC50 need to be developed and applied.”

No doubt the very preliminary research referred to in this quote has now been extended and updated, providing better insights as to the actual effects of these substances in the coral reef environment. We are fortunate indeed that Dr. Robert Richmond is now on the faculty of the University of Hawaii (based in Honolulu, I believe) and could easily be consulted on this matter.

I strongly suggest that the consultant who prepared the DEA for the Hokuloa Church request an opinion from Dr. Richmond as to the potential impacts on the coral reef of this herbicide spraying, given the likelihood of its being washed into Puako Bay during episodic flash-flood events in Kamakoa Gulch, and the potential cumulative effects of the project that I have outlined in my previous comments.

I also think that this should be a topic of great interest to the **Puako Community Association** as well as **DLNR**, given their often-stated interests in protecting the health of the Puako environment. It wouldn't hurt for them to contact Dr. Richmond as well, and I vigorously urge them to do so.

Sincerely,
A. Robert Teytaud

References Cited:

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Coral Reef Health: Concerns, Approaches and Needs. In: Crosby, M.P., G.R. Gibson, and K.W. Potts (eds). 1996. A Coral Reef Symposium on Practical, Reliable, Low Cost Monitoring Methods for Assessing the Biota and Habitat Conditions of Coral Reefs, January 26-27, 1995. Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration, Silver Spring, MD <<http://www.epa.gov/OWOW/oceans/coral/symposium/symposium.html>>.

Teytaud, A. R. 2001.

State Of The Puako Reef 2000: Final Technical Report on the Puako Marine Study Area. Prepared for the Protect Puako Community Organization, Hawai'i. 36 pages text + Appendices, Figures and Tables.

CC:

- (a) William J. O'Neil, Director
DLNR
- (b) Puako Community Association

geometrician

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August 5, 2011

A. Robert Teytaud
69-1647 Puako Beach Drive, #304
Kamuela HI 96743

Dear Mr. Teytaud:

Subject: Comment to Draft Environmental Assessment for Lease of State Land, Hokuloa United Church of Christ, TMK (3rd) 6-9-002: 007, 008, 009 & 010, Puakō, Island of Hawai'i

Thank you for your comment letter dated June 18, 2011, on the Draft EA. In answer to your specific comments:

1: The commenter feels that the applicant should have an alternative other than all or nothing, and one is suggested within the commenter's remarks: a better alternative would be allow the Church to use for its stated purposes an area equivalent on Parcel 8 to the truly unusable parts of Parcels 9a and 9b, as illustrated in Figure 5 of the comments. *The Church does not find that an acceptable alternative for its purposes, because (1) it provides so little area of use and does not include landscaping the entire area with native and Polynesian species to restore a more authentic historical atmosphere and (2) the purpose of the request for the lease is not simply to recover areas the Church is excluded from on Parcel 9 but to attempt to restore the area to the historical atmosphere that existed when the school sat in the vicinity of Parcel 7. We do not concur with your assessment of the adverse effects of gradually removing kiawe and replacing it with Polynesian and native plants on water quality or reef biota and therefore do not foresee the beneficial impacts you ascribe to your proposed alternative.*

2: Conversion of Parcels 7 and 8 to an open landscaped area will impose additional impacts on coral reef from flash-flooding of Kamakoa Gulch. *Even during the extreme event that you cite the flooding did not appear to affect Parcels 7 and 8. More importantly, kiawe provides a barrier for large debris only. We do not concur with your assessment of the benefits of kiawe in ameliorating floods and protecting water quality. Native groundcovers and shrubs would be far more effective at detaining silt from slow-moving floodwaters, should these ever affect the property.*

3: Highest and best use is to maintain and restore the kiawe vegetation on these properties. *Many hundreds of miles of shoreline in the Hawaiian Islands are covered with kiawe and will continue*

to remain so. The Church maintains that the highest and best use of this area adjacent to a historic church, which is so covered with kiawe that it prevents use of both the land and the shoreline, is to restore a semblance of the landscape that existed for many years before kiawe became the dominant vegetation to the exclusion of almost every other plant, especially natives. This will allow the enjoyment of the area by not only the Church but the general public.

4: Some use of the property for landscaping may be acceptable, if consistent with protecting the marine environment. *We believe that the landscaping plan as proposed will not only be acceptable but more beneficial than the existing situation.*

5: The allegation that kiawe loads the marine environment with excess nutrients and decreases freshwater input is just speculation in the absence of published data. *Because of suspicions about the effect of kiawe, the subject is specifically the subject of ongoing investigations by Dr. Flint Hughes of the U.S. Forest Service and several graduate students at the University of Hawai‘i at Hilo. According to papers presented at a conference at UH Hilo on June 30, 2011, preliminary results will be ready by early 2012. More importantly, however, is the question of the validity of the reverse presumption, i.e., that this invasive species is somehow beneficial to water chemistry of the reef ecosystem. In truth, the nutrient cycle in the Hawaiian Islands developed a balance in the absence of kiawe. Whatever effects kiawe has, it was absent for millions of years and was not required in order to support a healthy reef biota.*

6: The landscaping activities promoted in the plan do not result in authentic native ecosystem restoration. *The commenter is correct in noting that the project will not be an authentic restoration of pre-human vegetation. Nowhere in the Plan or EA is it asserted that the project attempts such a feat. Instead, it is stated that the project “will restore some native character to the vegetation.” One can easily cavil with any project in Hawai‘i that attempts to restore a component of native vegetation, because it is usually impossible to determine conclusively the pristine composition of an ecosystem in a highly degraded area, and even were it possible, it is generally infeasible to recreate this precise ecosystem. The aim of this project is to restore the zone near the shoreline at Hokuloa to a semblance of its appearance during the early years of the establishment of the Church and the previously existing school, which included native plants but was not an authentic pre-human contact environment. The zone near the shoreline at Hokuloa can be restored to this condition through the introduction and maintenance of native vines, herb and shrubs. Although not a precise replica of pre-human vegetation, it would be infinitely more accurate and beneficial than a tangle of kiawe. Every segment of a kiawe-dominated shoreline that can be planted with native species has great value for those who appreciate and utilize native plants as natural and cultural resources.*

7: The commenter asserts that the proposed action would amount to clearing vegetation on State lands subject to flooding by Kamakoa Gulch and would thus be harmful to the reefs. The commenter asserts that dense, tangled, deep rooted vegetation is better at capturing and filtering the floodwaters than native vegetation, as evidenced by the deep layer of powder fine soil is evidence of how well kiawe has performed. *First, the project is not a wholesale clearing of vegetation, but rather a gradual replacement of land completely dominated by an invasive species with a diversity of trees, shrubs, herbs and vines, except for some relatively small use areas that will be covered with a permeable surface.*

As discussed above, we do not concur with your assertion that kiawe forest is a better filter for storm water than other types of vegetation, particularly native herbs and vines.

8: The flood of December 22, 2010 extended to the northeastern edge of Parcel 7, meaning that the cover of vegetation there may have been critical to protecting the reef from sediment damage. *Although the commenter appears to have diligently mapped the extent of the floodwaters, the floodwaters do not appear to have reached the project area. Again, the implication that kiawe forest is a better filter for stormwater than other types of vegetation, particularly native herbs and vines, is not justified.*

9. The properties on which “almost all of the vegetation had been removed right down to the bare earth, and then the lots were continuously maintained in that bare condition” caused sedimentation. *Making conclusions about the project proposed at Hokuloa based on nearby activities that bear no resemblance to the actions proposed in the plan is neither relevant nor helpful. No such plans exist for this property.*

10. Soil erosion and sedimentation problems existing adjacent to Hokuloa Church are not discussed in the EA. *The Final EA has been augmented to reference your letter and its documentation and analysis of these occurrences, but our conclusion remains the same: this is not pertinent to the proposed project because they represent fundamentally different land uses.*

11. The clear-cut firebreak as well as work on the Kamakoa Channel Diversion ditch are likely to cause more intense and long-lasting flooding than before, and this is relevant to proposed uses. *Your speculation on the potential for more flooding of the property cannot easily be evaluated, but none of the Church’s proposed uses are flood-sensitive, and revegetation with plants more appropriate for retaining sediment than kiawe can only improve the potential situation for the reef.*

12. Soil will need to be imported to support the “garden” restoration of native and Polynesian plants, and this soil will end up on the reef. *The proposed use of native and historic plant landscaping will not require the importation of more than negligible quantities of soil.*

13. There is no evidence presented that a scenic landscaped vista existed on Parcels 7 and 8 near the Church on any time in the past. *As discussed in the EA, and further documented by many accounts in Church and other records, past descriptions of the environment in this area including a famous painting, clearly bear out the fact that kiawe was not rampant until well into the 20th century and that the shoreline on Parcels 7 and 8 was visible from the Church and actively used by Church members.*

14. Description of vegetation in Puakō on pp.11-12 bears no resemblance to the artificial-landscaped, garden-like project proposed by the Church. *We assume you are referencing this statement: “Because of the low availability of fresh or even brackish water aside from a few precious anchialine ponds, the natural shoreline in the dry parts of the Hawaiian Islands was sparsely vegetated, dominated by low-growing pantropical vines, herbs, and scattered specialized shrubs or trees such as kou (Cordia subcordata) and hala (Pandanus tectorius). Hawaiians are thought to have brought trees such as coconut (Cocos nucifera) and milo*

(Thespesia populnea, which may actually predate Hawaiians)...” These are precisely the types of plants that will be utilized, along with others that reflect 19th century history. As is often true in confined areas of partial native vegetation restoration, the plantings will be somewhat more dense than those that otherwise might be found in natural settings. Also, please see our response at Number 6, above.

15. The “large-clear cutting and landscaping project” would not be in the best interests of the state, the Big Island, or the Puako community. *The Church does not agree with your characterization of the project as clear-cutting nor with your assessment about the best interests of the community. However, it is up to the Board of Land and Natural Resources to determine this based on the evidence presented in the EA and the opinions of reviewers such as yourself.*

16. The cumulative impacts section lacks a discussion of increased sedimentation in Puako Bay. *The project will not lead to increased sedimentation and there are thus no adverse impacts that may accumulate with those of past, present and reasonably foreseeable future actions.*

17. The precautionary principle involves a reverse burden of proof which should be applied towards changing the vegetation as proposed in the EA. *It is a perversion of the precautionary principle to assert that it should prohibit attempts to restore, even partially, a landscape that has been infested by an invasive tree, particularly on the dubious basis of the purported sediment retention characteristics of a species that virtually forecloses groundcover.*

18: Because of the recession of the shoreline, regardless of whether erosion or sea level rise is the root case, a shoreline certification must be undertaken before the project is approved. *After approval of the lease from the BLNR and prior to any landscaping or trail improvements the Church will obtain a certified shoreline survey.*

H19: An herbicide study is needed. *As stated in Section 3.1.3 of the EA, the Church does not plan to use pesticides, including herbicides, and a systematic study of the cumulative effects of the application of herbicides is not relevant.*

We very much appreciate your review of the document. If you have any questions about the EA, please contact me at (808) 969-7090.

Sincerely,

A handwritten signature in black ink that reads "Ron Terry". The signature is written in a cursive, slightly slanted style.

Ron Terry, Principal
Geometrician Associates

Cc: Kevin Moore, Hawai‘i DLNR; Pastor John Hoover, Hokuhoa Church

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✓ Ron Terry, Principal
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Re: OPPOSITION TO "May 2011 Draft Environmental Assessment (DEA): In Support of a Finding of "No Significant Impact" Chapter 343, Hawaii Revised Statute, Title 11, Chapter 200, Hawaii Department of Health Administrative Rules for Proposed State Lease of TMK 3-6-9-2: lots 7, 8, 9, and 10, Puako, South Kohala, County of Hawaii"
Applicant Lessee: Hawaii Conference Foundation: Hokuloa Church of Christ

Greetings:

I am writing on behalf of Joseph and Helen Pickering, Trustees of the Pickering Trust, (the Pickerings), the owners of TMK 3-6-9-2:11 (Lot 11) located on Puako Bay, South Kohala, Hawaii.

I. INTRODUCTION

Hawaii Conference Foundation Hokuloa Church of Christ ("the Hokuloa Church" or "the Church") is seeking a long-term (65 year) lease of the adjacent Puako Lot 9 (TMK 3-6-9-2:9), which up to now has been occupied by the Church on a month-to-month

permit. The Church also seeks a long-term lease of the surrounding state-owned Lots 7, 8, and 10 (TMKs 3-6-9-2:7, 8 and 10). Obtaining this long-term lease is conditional upon obtaining various government approvals for its proposed use of the properties, including completion of an Environmental Assessment, and possible follow-up study and evaluation, an Environmental Impact Statement. In this May 2011 Draft Environmental Assessment ("the DEA"), the Church's consultant, Ronald Terry of Geometrician Associates, concluded that "In general, no adverse long-term impacts are expected to result from the action (proposed by the Church)", and accordingly is recommending that no further environmental evaluation is needed.

② It is the position of the Pickerings that further study and evaluation is warranted and that a follow-up Environmental Impact Statement is therefore necessary.

① As stated above, the Pickerings are the owners of Lot 11, which Lot 11 abuts the subject state held Lots 8, 9, and 10. The only access to their property from Puako Road is across the easterly portion of Lot 9 along its easterly boundary with Lot 8. Any action proposed on the subject state owned properties will have a direct impact on the Pickerings property and access easement.

Most importantly, the Pickerings want to be clear they support a direct lease of the above referenced State owned lots 7, 8, 9, and 10, to the Church in order to accomplish the objective of providing additional space at this historic site for both church related and community events and to be good stewards of these public lands. To that end, the Pickerings express their gratitude to the Church and its leadership, and the involved membership generally.

II. AREAS OF CONCERN

①, ⑧ Contrary to the DEA conclusion, the Church's plan will foreseeably cause significant environmental harm to the shoreline area of Lots 7 and 8, and to the adjacent coral reef and marine ecosystem, and to the Pickering's adjacent Lot 11, and to their access easement on Lot 9.

③ At first glance and absent an appreciation of the recent extent of erosion along the shoreline in this area, and the occurrence of periodic flood rains in this location, a "more environmentally friendly" alternative option would appear unnecessary. A more thorough and objective examination of the foreseeable impacts of the Church's project will clearly support the need for modification of the Church's plans and necessitate more specific lease conditions. Unfortunately, a "more environmentally friendly" option was glaringly missing from the environmental assessment. (Such an alternative was generally suggested by the Pickerings by way of the January 12, 2011 letter to the Church's consultant Geometrician Associates, which letter is included in the DEA at page 51 of the DEA Appendix, specifically at pages 54-55 "Recommendations".)

III. GENERAL NEED FOR AN ENVIRONMENTAL IMPACT STATEMENT:

Absent appropriate revisions and greater specificity, a complete Environmental Impact Analysis Statement is needed to prevent a significant adverse impact resulting from the Church project. The current plan would also require a Shoreline Setback Variance, a Shoreline Management Area permit, Subdivision plan approvals, and compliance with the Department of Health's Clean Water standards (Hawaii Administrative Rules (HAR) § 11-54-1.1 (anti-degradation policy) and HAR § 11-54-4 to 54-8 (water quality criteria).

In completing the Environmental Impact Analysis Statement, the following areas of additional study and evaluation should be included:

1. Inaccurate Plan: The May 2011 DEA representation of the Church's proposed development is based on an out of date and very inaccurate representation of the location of the shoreline on Lots 7 and 8, and as a result, the Church's project is proposed for a much larger area of land than actually exists, and in light of this discrepancy the Church's plans as proposed will have a far greater long-term adverse impact on the subject and surrounding properties.

A recent survey dated June 16, 2011, prepared by a Miles Horie, a licensed professional land surveyor, of the Pickering's lot 11 and the area of their access easement on Lot 9 along the boundary of Lot 8, is attached as **Exhibit 1**. This recent survey superimposed on the DEA representation of the Church's proposed development "Preliminary Landscape Plan" (attached as **Exhibit 2**) shows the significant discrepancy between the DEA representation of the shoreline location versus the actual location of the shoreline as shown in this June 16, 2011 survey.

An accurate representation of the location of the shoreline is essential to assessing the environmental impact in this location and on this basis alone the DEA is unacceptable.

2. Foreseeable Environmental Degradation in this Location: Rapidly Receding

Shoreline: Since the 1980s the Pickerings have witnessed the rapidly receding shoreline in this location. This phenomena is readily apparent from comparison of the current location of the shoreline shown on the above referenced June 16, 2011 survey (Exhibits 1 and 2) with a 1980's representation of the approximate location of the shoreline on the Pickering's northerly and easterly ocean-side boundaries (attached hereto as **Exhibit 3-A**), and with the location of the shoreline shown on the County Tax Map plan for this location: Zone 6, Section 9, Plat 2, which tax map was dated 1935 and revised in October 1950 (attached hereto as **Exhibit 3-B**). Whereas the County Tax Map shows a portion of Lot 8 completely wrapping around the Pickering's Lot 11, the 1980s survey shows considerable loss of land on the oceanside of the Pickering's lot, and the 2011 survey shows far more loss of the Pickering's lot to the sea as well as a major change in the location of the shoreline in the area of the boundary between Lots 8 and 9 where the Pickering's easement is located.

Presumably there are many causes of the rapid advancement of the shoreline in the location, including from sea level rise - known to be pronounced on the Island of Hawaii in contrast to the other Hawaiian Islands, the minimal slope of these properties, the seawalls on adjacent Lot 12 (Whitaker's Lot) as well as on Lot 5/6 (Sullivan's lot to the East of Lot 7), to the bay shape of the shoreline. The point is that, regardless of the cause or causes, in addition to the need to establish the actual current location of the shoreline on Lots 7 and 8, the rapid rate of change in the highwater line should be taken into consideration. For example, these concerns should impact the location and manner of construction of the proposed public access trail, and would likely require retention and preservation of a substantial tree and vegetative buffer along the immediate coastline. As currently proposed, the extent of the area to be cleared for church activities and for the shoreline public trail would involve removal of environmentally important kiawe, ironwood, and other significant trees and vegetation which would accelerate and exacerbate the already rapid erosion and subsidence of the shoreline in this area. The main public trail should be moved inward, along with carefully located intermittent stub access trails to the high waterline. Doing so would be consistent with comments received from trail organizations. For example, in the June 21, 2010 letter submitted by the trail stewardship organization E Mau Na Ala Hele, the letter states: "If no physical pathway is clearly evident, a path should be designated appropriately inland of the shoreline." (on page 25 of Appendix 1a of the May 23, 2011 DEA). The appropriate distance from the shoreline for the trail should be based on further evaluation in consultation with the involved government and non-governmental trail organizations.

Specifically on Lot 8 in the area of the easterly boundary of Lot ⁹10 (where the Pickering's access easement is located), given the immediate proximity of the ocean waters, removal of all major trees and vegetation should be prohibited. Actually even removal of the dead trees and branches that are now intertwined with the existing kiawe tree roots would likely be harmful and accelerate loss of soil in this location (lava outcroppings interspersed with veins of soils and sand). Photos at the makai corners of the Pickering's Lot 11 are here included— with a diagram showing those points on a February 14, 2011 survey plan is attached as **Exhibit 4**.

As represented in the DEA plan, the public trail is shown to be immediately adjacent to the shoreline on both Lots 7 and 8, and presumably would require "shoreline hardening". As was stated at the June 17, 2011 Informational meeting about this EA, most of the predominant kiawe along the shoreline are planned to be removed. When asked about how the determination of what if any of the existing trees would be retained, the Church and its consultant indicated that has not yet been determined.

Yes, the Church's plan, as represented in the DEA, includes some vague and general mitigation proposals (some unspecified phasing and some unspecified retention of some unspecified existing trees), along with a general proposal for replanting with alternative

8

vegetation. The DEA does not however contain any specific conditions to ensure the adequacy of these generalities to mitigate the foreseeable adverse impacts. The Environmental Impact Statement should therefore include specific mitigation measures relating to preservation of existing shade canopy trees along the shoreline in this native fish nursery location and water pollution and shoreline disturbance issues relative to the coral reef and marine habitat, such as for the endangered Hawaiian monk seal, which, as the Pickerings have noticed, inhabit these Puako waters. This area of West Hawaii is within one of the recently proposed "Critical Habitats" for endangered monk seal. As explained by Michael Tosatto, the National Oceanic Atmospheric Administration (NOAA) Fisheries Pacific Islands Regional Administrator: "This species faces a number of threats, and it's imperative we ensure they have safe areas where they can rest and take care of their young." A June 8, 2011 NOAA announcement about the intention of NOAA to create these monk seal critical habitat is attached as **Exhibit 5**. A portion of the National Register Announcement (Volume 76, No. 106 June 2, 2011 Proposed Rules, 50 CFR Part 226 "Endangered and Threatened Wildlife and Plants: Proposed Rulemaking To Revise Critical Habitat for Hawaiian") of this NOAA proposed rule, including the map contained therein showing that this area of West Hawaii is within the proposed area of critical habitat for the Hawaiian monk seals, is also here attached as **Exhibit 6**.

9

A more enlightened environmental analysis of the kiawe trees here is also warranted. The Church's consultant has taken what those more knowledgeable about kiawe find to be a naïve lack of appreciation for shoreline kiawe. Yes these trees are thorny and often need to be trimmed of suckers to maintain a visually attractive appearance. And yes native plants can be introduced and mixed with the significant kiawe -- but there is no way in this increasingly drought plagued location -- with documented rising temperatures, that other "more desirable" broad leaf trees can easily replace these shoreline kiawe -- absent a long term well executed replanting program. There is certainly no assurance that will occur based on the vague plans set forth in the DEA.

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3.Cumulative flooding impacts: According to the Department of Health's "Water Quality Standards, the near shore marine waters in this location are classified as "Class AA". The pertinent administrative rules, HAR §54-3(c)(1) provides:

It is the objective of class AA waters that these waters remain in their natural pristine state as nearly as possible with an absolute minimum of pollution or alteration of water quality from any human-caused source or actions. To the extent practicable, the wilderness character of these areas shall be protected.
(emphasis added)

Whereas the "Class AA" status of these waters is mentioned in the DEA, the policy guideline contained in the rules is glaringly omitted (i.e. that the wilderness character of these areas shall be protected.")

11

8

Lots 7 and 8 are highly vulnerable to sheet flooding from Kamakoa Gultch – located to the east of these lots, with its discharge flowing directly into the cleared fuel break zone and onto Puako Beach Road (as many who have been blocked from passage in this location during flood rains know well). Much of Lots 7, 8, and 9, with minimal slope are within regulated flood zone “VE”. As is well known, forest and undisturbed vegetative areas act as an important buffer to protect adjacent coral reef ecosystems. As stated in the Department of Land and Natural Resources, Division of Forestry and Wildlife 2010 Report “Hawaii Statewide Assessment of Forest Conditions and Trends 2010 An Assessment of Our Aina” : Forest conservation plays a critical role in maintaining the health of the makai (ocean) resources like coral reef ecosystems and limy beds”. The May 2011 DEA does not adequately address the cumulative impacts of periodic floods in this location. Substantial clearing of the fuel (fire) break immediately mauka of the Puako Road, and approval of development plans proposing similar clearing of vegetation on nearby lots has resulted in massive erosion and sediment deposits on the adjacent reef during these periodic flood rains. A review of the photos from the December 2010 flood rains will substantiate the need for a more in depth evaluation and determination of specific mitigation measures to prevent this deleterious impact on the coastal waters and coral reef ecosystem. These photos of the shoreline in this area showing brown ocean waters off an adjacent lot where many of the kiawe trees and other vegetation had been allowed to be removed, as compared to the undisturbed blue waters off subject lots 7 and 8, are attached as **Exhibit 7** Any removal of mature vegetation --- and even of shoreline debris will increase run-off into the adjacent coastal waters. Further study and evaluation is essential to maintain the critically important sediment and debris filtering capacity of vegetation on Lots 7 and 8, both near and long term. In further studies close attention should be paid to the comments and criticisms of Robert Teytaud dated June 18, 2011, along with the references included therein. Robert Teytaud is a retired biologist, with a master’s degree in marine fisheries biology with former career in coastal/marine resources management. He resides in Puako and has taken a personal interest in the welfare of this very special coastline.

On a community level, the importance of these environmental concerns was recently underscored in the 2008 South Kohala Community Development Plan Ordinance 2008-#159, (SKCDP). Section 7.3.2 of the 2008 SKCDP, for example, provides:

The marine waters off of Puako along with the coral reefs and white sand beaches are not just natural resources enjoyed by Puako residents these are natural resources that are enjoyed by the entire district of South Kohala and the County. The coral reefs off the coast by Puako still teem with diverse marine life.... It is crucial that these unique resources be preserved and protected for future generations. Clearly permitted activities on public lands in this area should be carried out in a manner that does not exacerbate destruction of the reef.

The SKCDP, section 2.5.2 "Coastal Resources" also provides:

Land-based sources of pollutants, such as sediment and nutrients, are among multiple factors threatening the quality of coastal waters and coral reef ecosystems in Hawaii.

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The shoreline along subject Lots 7 and 8 is one of the only a few limited stretches of undeveloped of public land in this Puako area, and the importance of preserving and protecting the marine habitat and coral reef ecosystems is acknowledged by all.

12

4. Lack of availability for public parking. As currently proposed there is inadequate space for public parking along Puako Road (outside of the area to be fenced by the Church) for those seeking to use the proposed access easement and for those who currently park in this location while using Puako Road for jogging and recreational walking. If the Church's current plan to locate a wall close to the road is permitted the result will be unsafe parking in front of private residences that will subject pedestrian traffic here to greater danger. According to reference in the DEA, the Department of Public Works commented that the road right of way should be at least 50 feet wide. (Where is the actual County of Hawaii Public Works letter?) Yet there is no assurance that the road will be widened to 50 along the undeveloped Lots 7 and 8 – so as to accommodate public parking and safe pedestrian and bicycle traffic. In fact at the June 17, 2011 informational meeting, the Church's consultant said something about possibly the road right of way being increased from 30 to 40 feet in width. That plan would be less than the minimal initially requested by the Public Works Department's recommendation. Reference may be made to the 2008 SKCDP regarding the community's many concerns for safe pedestrian and bike lanes.

According to the Church's preliminary plan diagram, there is vehicular access to the area of Lot 7 that will be off limits to the public. However the DEA is unclear to what extent the Church plans to provide for on-site parking for those attending Church or community activities on the Lots proposed to be leased. If adequate space for parking along Puako Road were included in the plan (whether that would require a 50 or 60 foot road right of way), then on-site parking for functions within the fenced in area might not be necessary.

Further study and evaluation should address public parking issues.

13

5. Use Of The Property For Community Functions: The State's month to month permit of Lot 9, Lease #S-4350, required that Church lot 9 be open to the public: "This Permit or any rights hereunder shall not be sold, assigned, conveyed, leased, mortgaged, or otherwise transferred or disposed of." [at §11] . The Church's Permit also states that: "The Permittee shall not any time preclude free public use and enjoyment of the premises." [at §21a].(emphasis added)

13

Those overseeing use of the church for community events and programs have, to my knowledge and by all accounts, always made clear that the Church lot 9 is reasonably available for public functions.

According to the DEA, the Church plans to continue to allow community functions on Lot 9, but would not provide for community use of Lots 7, 8, and 10. Any lease of these state held public lands, should allow for use of all of these public lands for reasonable community purposes. Concern about this issue was reinforced when at the June 17, 2011 informational meeting on this EA, a representative of the Church indicated that only Church functions would be permitted within the fenced in area of Lots 7 and 8. Perhaps this was a misstatement, or his words were misunderstood, but something explicit about reasonable access for community programs should be included in the lease conditions for all of these state-held public lands.

Inclusion of such a lease condition relating to public functions and programs is particularly appropriate and necessary given that these state held public lands are Section 5(b) lands under the State of Hawaii Admissions Act. Hawaii State Constitution, Article XII, Section 4 "Public trust", in relevant part, provides:

The lands granted to the State of Hawaii by Section 5(b) of the Admissions Act . . . shall be held by the State as a public trust for native Hawaiians and the general public. (emphasis added)

14

6. The Church's Proposed Use Of State Lot 10. The Pickerings do not oppose the Church's proposed landscaping of Lot 10, as generally set forth in the DEA. They do note that, as shown on Exhibit 1, a portion of the stonewall construction by the Church appears to be located on the Pickering's property. When the Church constructed this wall, the side facing the Church was "finished", but the side facing the Pickering's lot, was left "unfinished" with blobs of concrete across the rock surface. At the time the wall was constructed the stones that has comprised the historic wall along this boundary were generally pushed on to the Pickering's lot. The Pickerings did not give permission for this wall to be built on their property and were not in residence at the time it was constructed.

In contradiction, according to the Church, this recently built wall is completely on Lot 9. The parties still need to resolve this issue. Obviously any extension of this wall should not be located on the Pickering's lot 11.

15

There is one giant majestic kiawe on the Pickering's property along the boundary of Lot 10. Precautions should be taken to ensure that this tree is not in anyway harmed or disturbed. Further clarify is needed to ensure that the proposed landscaping of Lot 10 ensures that this majestic tree will not be affected.

16

IV. PRESERVATION OF THE PICKERING'S ACCESS EASEMENT:

The Church's current plans do not provide assurances for the preservation of the Pickering's access easement on Lot 9 along the border of Lot 8. Specific assurances for protection of the Pickering's easement is warranted, including that the Church should be prohibited from removing kiawe and other vegetation within the Pickering's easement or located along the boundary of the easement without written agreement of the Pickerings. Based on the draft DEA, it is unclear whether the Church believes removal of some if not all of the majestic kiawe trees in the Pickerings access easement would be permissible without prior permission of the Pickerings. In fact at the DEA informational meeting, statements were made by Church representatives that indicate their understanding is that removal of trees within the Pickerings "non-exclusive" easement corridor would be at the Church's sole discretion. The Pickerings object strongly to the Church's position in that regard, and seek clarification of this point.

By way of background, the Pickering's Lot is a "kuleana lot" (Royal Patent 7137, Land Commission Award 4102), and as such access thereto is constitutionally and statutorily protected. Access from Puako Road to their lot 11 has always been across the easterly portion of Lot 9. As discussed above, there is now only a narrow strip of land area between the boundary of Lot 9 and the high water line. In fact, as shown on Exhibits 1 and 2, attached hereto, a portion of the boundary of Lot 9 is within 3.8 to 6.8 feet from the water's edge.

The actual traveled way on the easement corridor runs along side large kiawe located within the northerly portion of the easement and adjacent to the shoreline. As mentioned above the roots of these kiawe helps to create a barrier against continued erosion and subsidence in the area of their vehicular access. There are several very large kiawe within or on the boundary of the easement corridor the preservation and protection of which is very important to protect the Pickering's easement. One prominent and visually unique kiawe tree grows horizontally where the ocean is closest to the traveled way. The Pickering's made a major efforts to prevent ground disturbance in this area and to protect the trees and vegetation along their easement corridor. Photos of the trees in the area of this easement corridor trees are attached as **Exhibit 8**.

Several years ago it was determined that the metes and bounds description of the Pickering's easement was inconsistent with the actual driveway. The Church at first demanded an enormous sum of money as payment for the Pickerings to continue using the existing driveway access to their Lot. At the time this sum was demanded, the Pickerings therefore assumed the Church must have acquired a fee interest in Lot 9 from the State. The Church also demanded that the Pickerings cut down the shoreline kiawe trees in this location and realign the actual driveway location to the metes and bounds easement location, which given the current location of the shoreline would mean their driveway would in part be right a long the water's edge. Subsequently the Pickerings found out that the Church had not acquired Lot 9, but continued to hold a month-to-month permit from the State.

Given the proximity of the shoreline and the rapid shoreline subsidence, rather than being required to remove the kiawe trees along the boundary of Lot 8 and 9, the Board agreed to widen the Pickering's access easement generally by some 5 feet westerly, so that removal of these kiawe trees would not be necessary and would remain as a protective barrier for their driveway access. In the Pickering's opinion the Church representatives simply did not recognize the high risk of further shoreline deterioration and therefore did not appreciate the importance of retaining these kiawe trees. In light of these concerns, the Pickerings also requested and were granted sole responsibility for maintenance and trimming of the trees within their easement. As one DLNR staff person explained, it was important to separate the area to be maintained by the Pickerings from the area to be maintained by the Church, in order to prevent future disputes.

As stated in the Board's November 19, 2009 decision:

On March 19, 2009, staff conducted a site inspection of the property. Staff noted large kiawe trees are growing in a portion of the legal easement corridor, approximately midway between the church lot's northeast and southeast corners. Additionally, the eastern edge of the church lot, which is also the eastern boundary of the legal easement, is located within a few feet of the high water line. The Pickerings state they are worried that the removal of the kiawe trees would destabilize the shoreline in this area. The Pickerings point out that the shoreline is closer to the traveled way than it was in the early 80's, and believe that it is now important to preserve the tree barrier between the church lot and the ocean.

The Board also agreed that the Pickerings be solely responsible for maintenance and trimming within the easement. The Board's decision expressly states:

Grantee shall be reminded that it is solely responsible for the maintenance and repair of the easement area, which includes trimming of the kiawe trees growing within the approved easement area." (Board Decision at page 5, Condition 5)

Exhibit B on page 8 of the Board's November 19, 2009 decision shows the granted increase in width of the Pickerings access easement and the line of Kiawe trees sought to be preserved along the boundary of lots 8 and 9. (This Exhibit B is attached hereto as **Exhibit 9** and the Board's decision concerning the Pickering Access easement in its entirety is attached hereto as **Exhibit 10.**)

If the State were to approve the Church's plans as presented in the DEA, without appropriate revisions and protections, the Pickerings would likely need to pursue whatever legal options are available to prevent actions deleterious to preservation of their easement.

5 The Pickerings also wish to point out that the survey map contained in the DEA (at page should be replaced with the updated survey that is attached hereto as Exhibit 1, and the project representation in the area of the Pickering's easements should be corrected. The Pickerings also note receipt of a utility easement from the State also on Lot 9 just west of the access easement corridor. In light of concerns raised by the Church, the Pickerings have agreed to redo the underground water line at a greater depth. The Board approved this arrangement in its November 19, 2009 decision rather than moving the waterline into the easement corridor so as to minimize any disturbance of the ground proximate to the shoreline area. A copy of that Board decision is available upon request.

2 **V. POSSIBLE ALTERNATIVE TO A FULL ENVIRONMENTAL IMPACT ANALYSIS:** Assuming the Church and its supportive consultant Ronald Terry of Geometrician Associates would like to avoid completing a full Environmental Impact Analysis, the Pickerings raise the possibility that a collaborative revision of the Church's proposal based might be possible that would eliminate the need for a full environmental impact analysis. In response to the concerns raised above, any such a revision would need to:

- be based on an accurate mapping of the current location of the shoreline;
- carefully address the need for specific mitigation measures to prevent degradation of the shoreline ecosystem and marine habitat;
- proportionately downscale the Church project in an environmentally sensitive manner, with greater specificity of what trees will be retained, and a more specific phasing plan for removal of existing trees and vegetation;
- include more specificity as to how this new landscaping will be carried out (for example the Church refers to plants that are not as drought resistant and which will require substantial irrigation to become successfully established in this climatically harsh location), absolutely prohibit the use of fertilizers and insecticides or herbicides that might harm the adjacent coral and marine habitat;
- clarify that the main public access trail will be located a sufficient distance from the shoreline and instead provide intermittent stub trails to the shore (say 20-40 feet from the shoreline, or as otherwise determined appropriate based on further evaluation);
- on lot 8 in the area of the Pickering's easement provide specific prohibitions measures to ensure there will be limited removal of trees and vegetation in this buffer area on Lot 8;

2

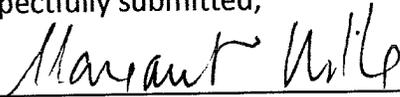
- prohibit removal or trimming of trees within the Pickering's easement – over which they were to have sole control of maintenance and trimming without written agreement of the Pickerings; and
- provide some area on along the road edge of Lots 7 and 8 to accommodate public parking between the Church's proposed wall and the road pavement in a manner that allow room for safe pedestrian passage off the road bed.

VI. CONCLUSION:

In conclusion, as now presented, the Church's proposed project will require a full Environmental Impact Analysis. However, with appropriate modifications to address the above concerns (and such other valid concerns raised during the

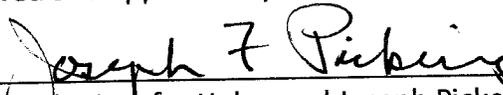
DEA process), the Pickering's believe the Church's project will be an outstanding model for eco-friendly shoreline development, and an outstanding asset not just for Pauko but also for the state and nation.

Respectfully submitted,

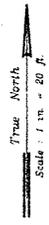
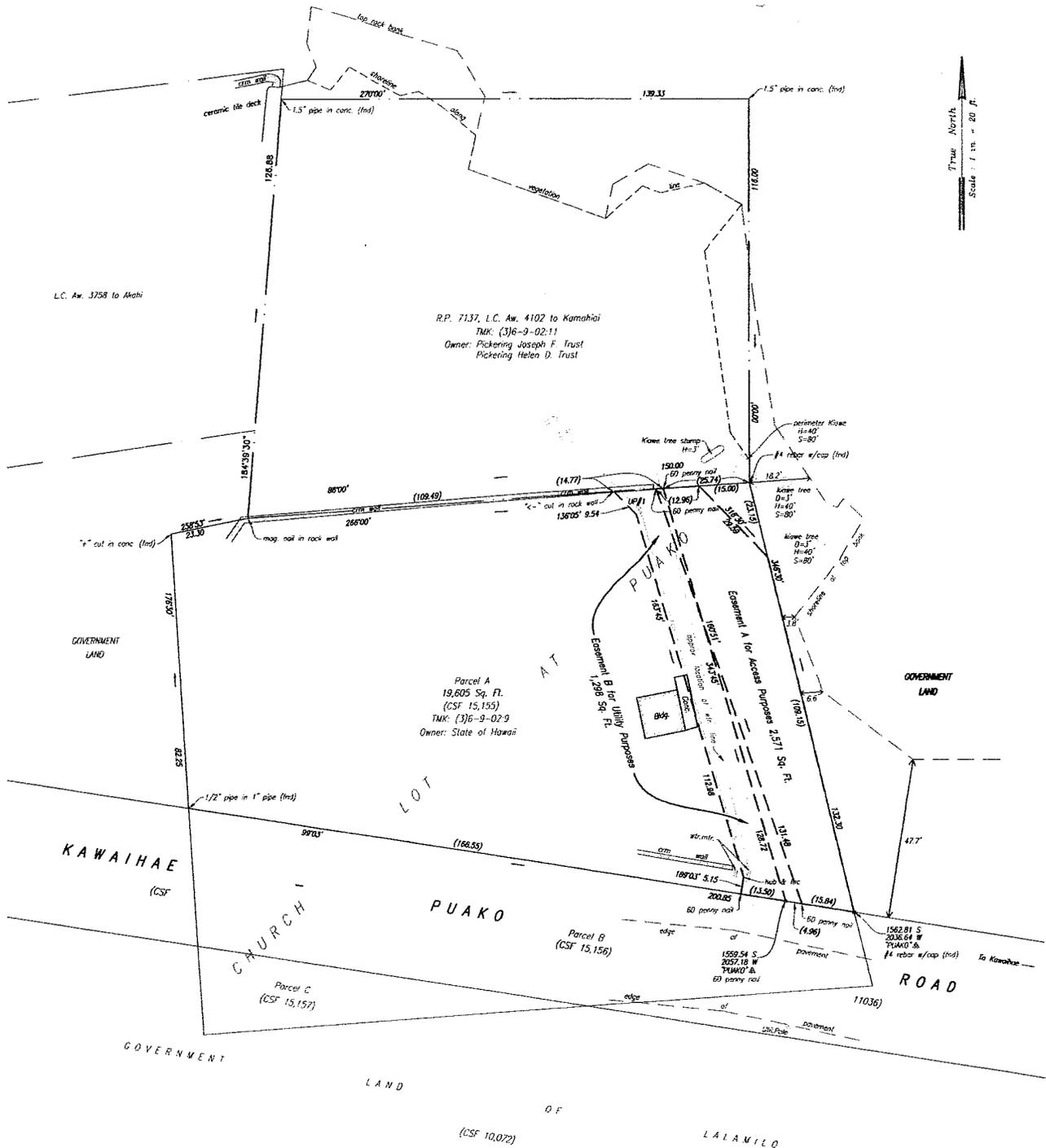


Margaret Wille, attorney for
Helen and Joseph Pickering

Reviewed and approved by:



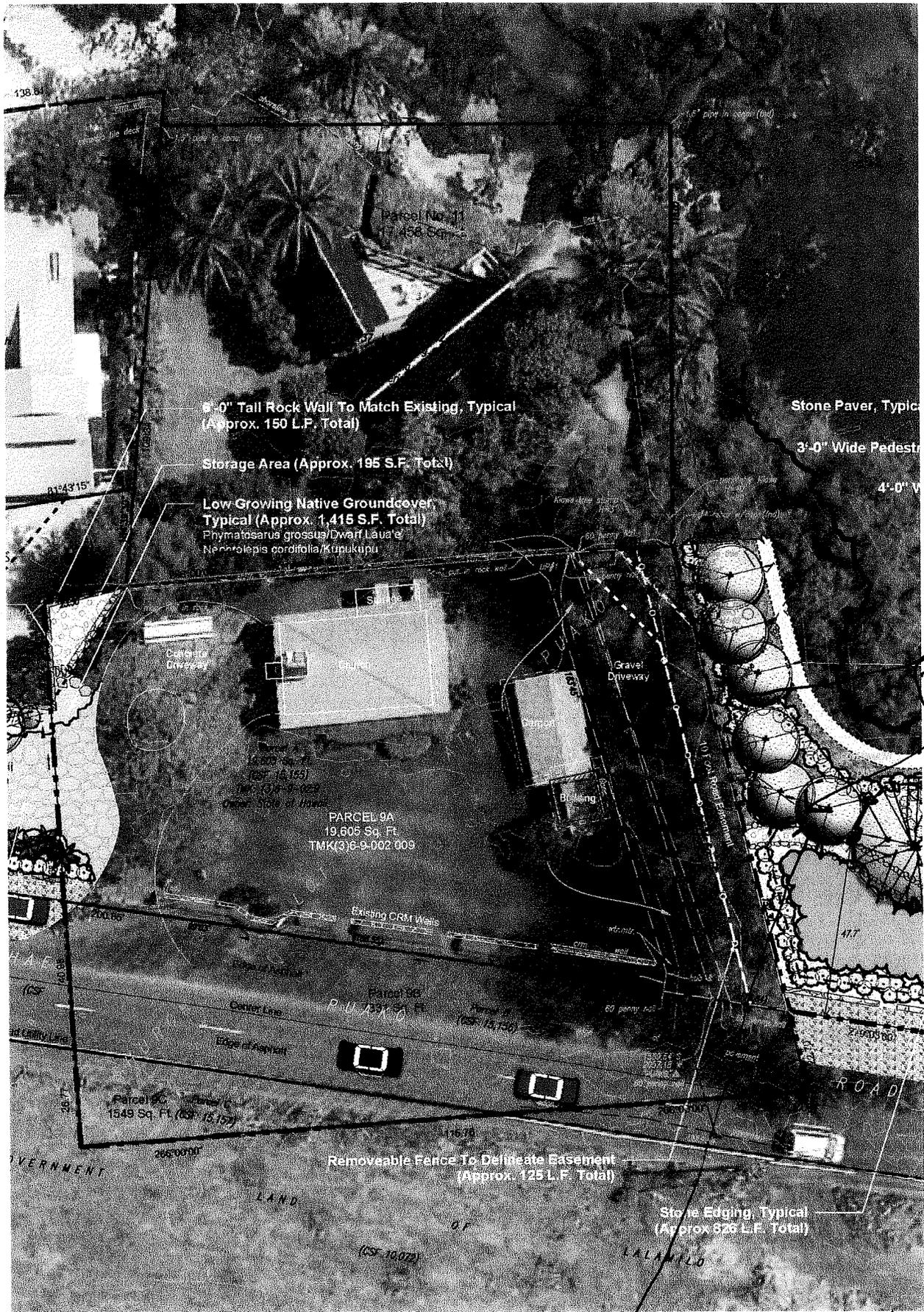
Joseph Pickering, for Helen and Joseph Pickering,
Trustees of the Pickering Trust



This work was prepared by me or under my direct supervision, Engineers Surveyors Hawaii, Inc.
Aviles S. Horie
 Aviles S. Horie Exp. 4/23/12
 Licensed Professional Land Surveyor
 Certificate Number 19907

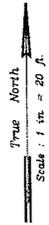
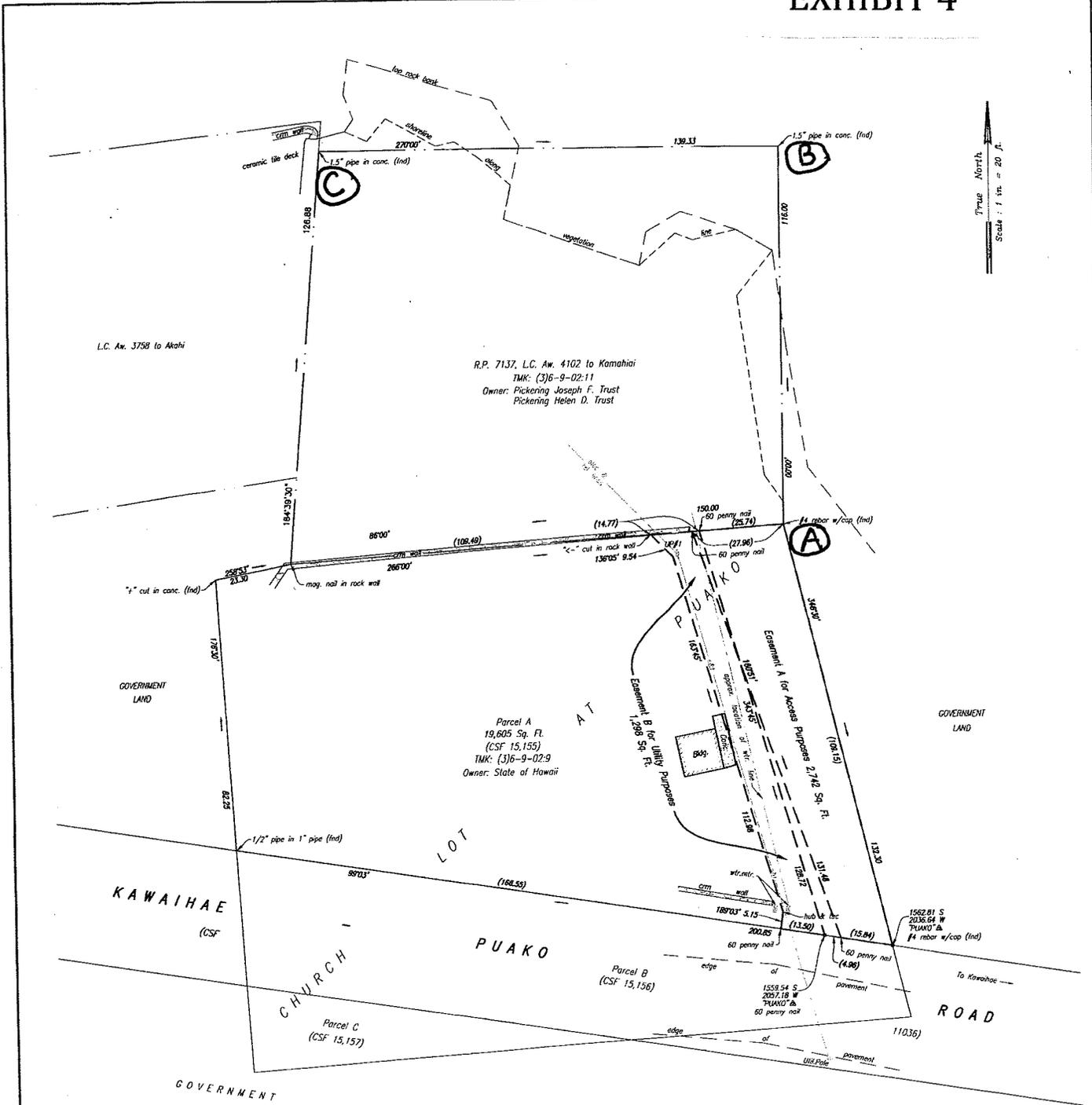
Plan Showing
 Royal Patent 7137
 Land Commission Award 4102 to Kamahiai
 and Church Lot at Puako
 Parcel A (C.S.F. No. 15,155)
 at Puako, Lalamilo, Waimea
 South Kohala, Island of Hawaii, Hawaii
 T.M.K.: (3)6-9-02: parcel 11 & parcel 9
 Client: Joseph Pickering

Legend
 D = diameter
 H = height
 S = spread



red broken line shows actual shoreline

EXHIBIT 4



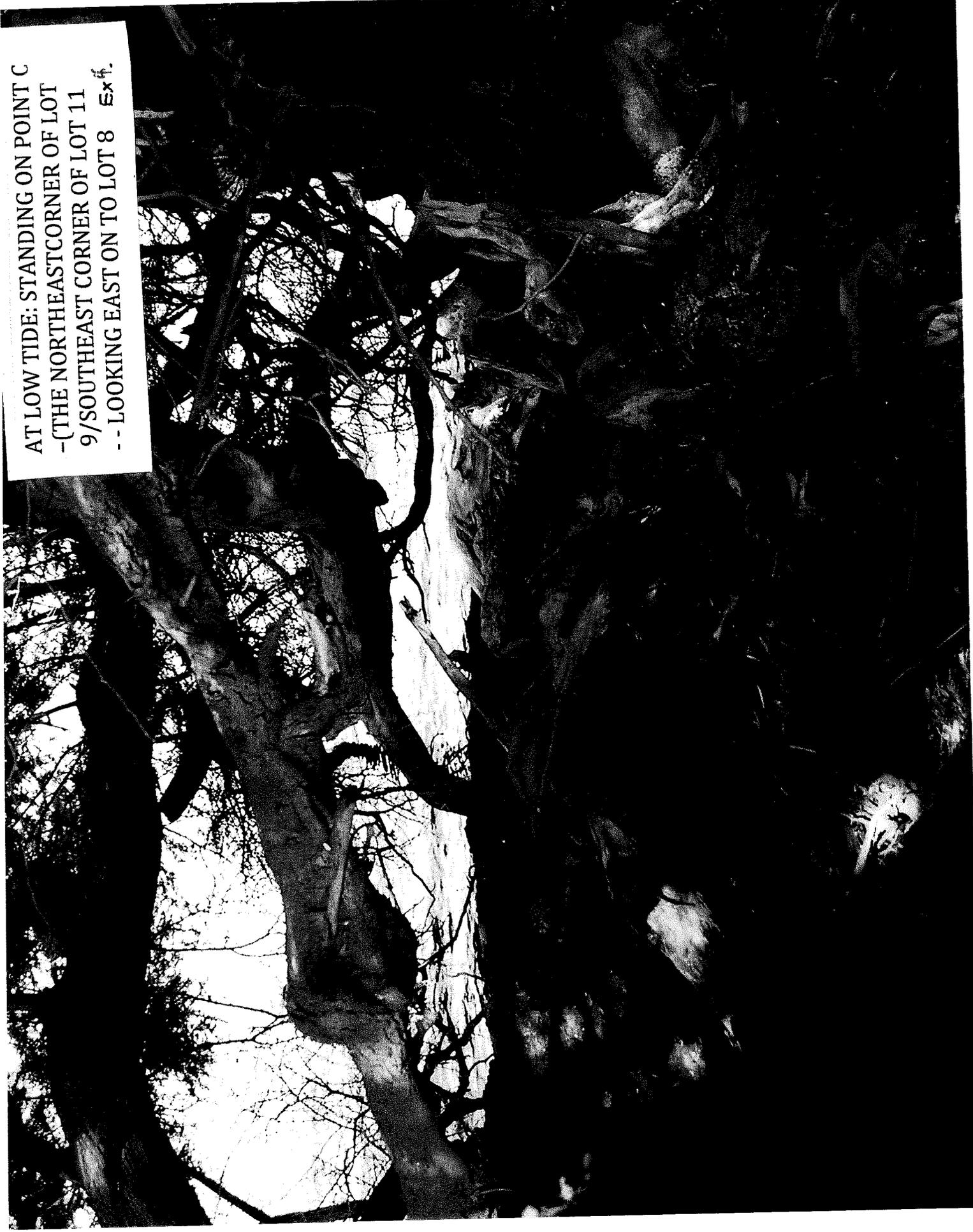
Plan Showing

Royal Patent 7137
 Land Commission Award 4102 to Kamahai
 and Church Lot at Puako
 Parcel A (C.S.F. No. 15,155)
 at Puako, Lalamilo, Waimea
 South Kohala, Island of Hawaii, Hawaii
 T.M.K.: (3)6-9-02: parcel 11 & parcel 9
 Client: Joseph Pickering



This work was prepared by me or under my direct supervision.
 Engineers Surveyors Hawaii, Inc.
 Miles S. Horie
 Licensed Professional Land Surveyor
 Certificate Number 10007

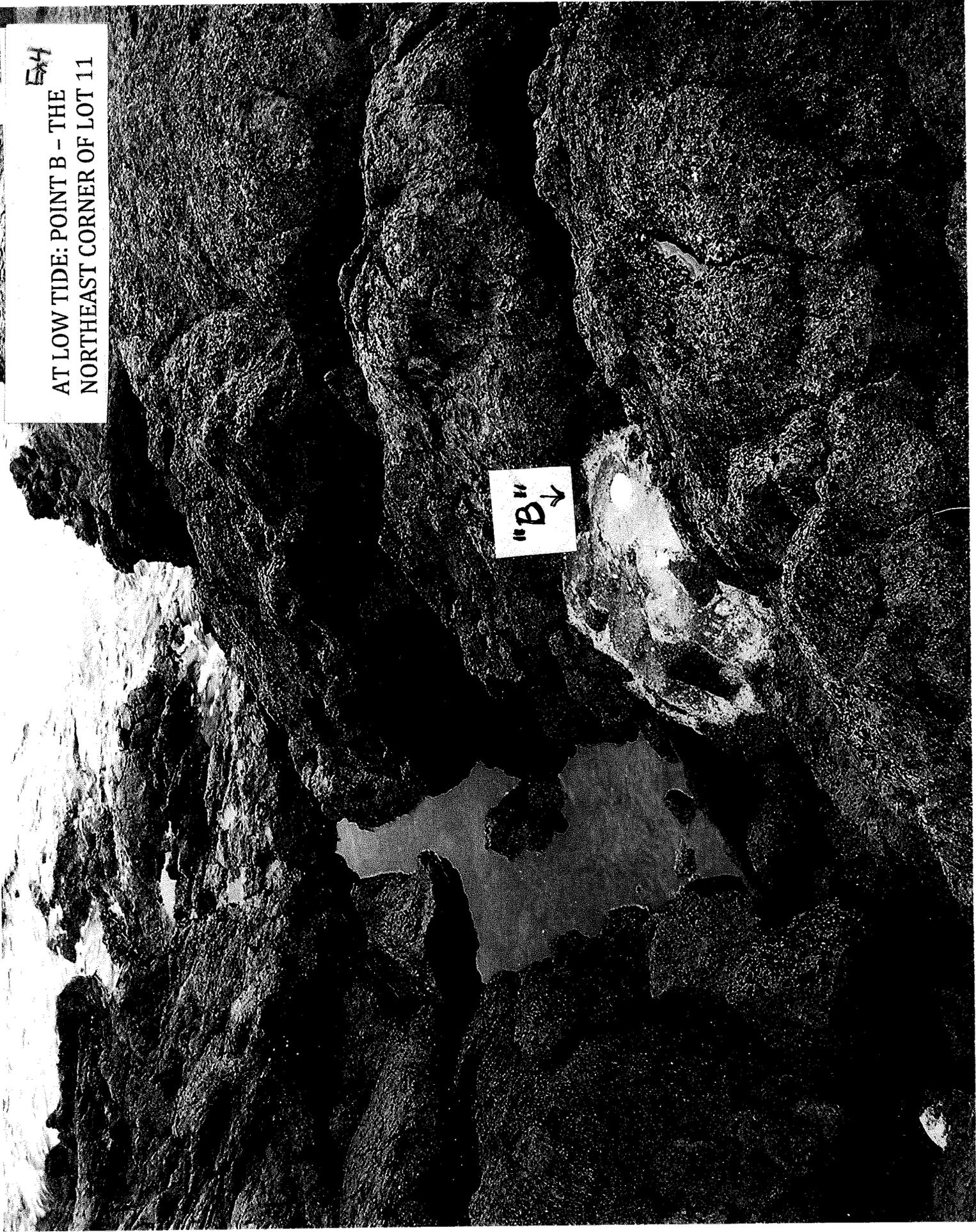
AT LOW TIDE: STANDING ON POINT C
- (THE NORTHEAST CORNER OF LOT
9/SOUTHEAST CORNER OF LOT 11
-- LOOKING EAST ON TO LOT 8 Ex 4.



54

AT LOW TIDE: POINT B - THE
NORTHEAST CORNER OF LOT 11

"B" ↓



AT LOW TIDE LOOKING OUT
FROM POINT C - THE NORTHWEST
CORNER OF LOT 11

EX

Looking out To
the Bay from "C"



Under the ESA, critical habitat is an area which may require special management or protections essential for the conservation of a listed species. Federal agencies must take precautions to insure that activities they fund, authorize or carry out do not destroy or adversely modify critical habitats.

Biologists estimate that only 1,160 Hawaiian monk seals exist, and are in danger of extinction because of their declining population in the Northwestern Hawaiian Islands.

Monk seals are wide ranging pinnipeds that require both marine and land habitats for reproduction, rearing, foraging and resting. However, unlike other well recognized pinnipeds that congregate in large numbers at rookeries, monk seals are considered a solitary species. They generally prefer to haul out in remote areas for reproduction and rest. The

proposed revision to Hawaiian monk seal critical habitat allows NOAA Fisheries Service to incorporate new scientific information available regarding Hawaiian monk seals' habitat use, and will allow for the conservation of those areas essential for Hawaiian monk seal survival and recovery.

NOAA's Fisheries Service is accepting comments on the proposed revision through August 31, 2011. Dates, times and venues for public hearings will be available on our website at: <http://www.fpir.noaa.gov>. NOAA's Fisheries Service will review comments and issue a final rule, expected by June 2, 2012.

To submit comments on the proposed critical habitat revision for the Hawaiian monk seal, use any of the following methods:

- Submit comments online via the Federal eRulemaking Portal at <http://www.regulations.gov>.
- Mail or hand deliver written comments to:

Regulatory Branch Chief
Protected Resources Division
NMFS Pacific Islands Region
1601 Kapiolani Blvd., Suite 1110
Honolulu, HI 96814

Attn: Proposed Critical Habitat Revision for the Hawaiian monk seal

NOAA's mission is to understand and predict changes in the Earth's environment, from the depths of the ocean to the surface of the sun, and to conserve and manage our coastal and marine resources. Find us on [Facebook](#).



A group of seals resting on a beach in the Northwestern Hawaiian Islands.

[Download here](#). (Credit: NOAA.)

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A group of seals resting on a beach in the Northwestern Hawaiian Islands.

[Download here.](#) (Credit: NOAA.)

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 226

[Docket No. 110207102-1136-01]

RIN 0648-BA81

Endangered and Threatened Wildlife and Plants: Proposed Rulemaking To Revise Critical Habitat for Hawaiian Monk Seals

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Proposed rule; request for comments.

SUMMARY: We, the National Marine Fisheries Service (NMFS), propose revising the current critical habitat for the Hawaiian monk seal (*Monachus schauinslandi*) by extending the current designation in the Northwestern Hawaiian Islands (NWHI) out to the 500-meter (m) depth contour and including Sand Island at Midway Islands; and by designating six new areas in the main Hawaiian Islands (MHI), pursuant to section 4 of the Endangered Species Act (ESA). Specific areas proposed for the MHI include terrestrial and marine habitat from 5 m inland from the shoreline extending seaward to the 500-m depth contour around: Kaula Island, Niihau, Kauai, Oahu, Maui Nui (including Kahoolawe, Lanai, Maui, and Molokai), and Hawaii (except those areas that have been identified as not included in the designation). We propose to exclude the following areas from designation because the national security benefits of exclusion outweigh the benefits of inclusion, and exclusion will not result in extinction of the species: Kingfisher Underwater Training area in marine areas off the northeast coast of Niihau; Pacific Missile Range Facility Main Base at Barking Sands, Kauai; Pacific Missile Range Facility Offshore Areas in marine areas off the western coast of Kauai; the Naval Defensive Sea Area and Puuloa Underwater Training Range in marine areas outside Pearl Harbor, Oahu; and the Shallow Water Minefield Sonar Training Range off the western coast of Kahoolawe in the Maui Nui area. We solicit comments on all aspects of the proposal, including information on the economic, national security, and other relevant impacts. We will consider additional information received prior to making a final designation.

DATES: Comments on this proposed rule to designate critical habitat must be received no later than August 31, 2011. A public hearing will be held promptly if any person so requests by August 16, 2011. Notice of the date, location, and time of any such hearing will be published in the **Federal Register** not less than 15 days before the hearing is held.

ADDRESSES: You may submit comments identified by 0648-BA81 by any one of the following methods:

- **Electronic Submissions:** Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments.
- **Mail or hand-delivery:** Submit written comments to Regulatory Branch Chief, Protected Resources Division, National Marine Fisheries Service, Pacific Islands Regional Office, 1601 Kapiolani Blvd., Suite 1110, Honolulu, HI, 96814, Attn.: Hawaiian monk seal proposed critical habitat.

Instructions: Comments must be submitted to one of these two addresses to ensure that the comments are received, documented, and considered by NMFS. Comments sent to any other address or individual, or received after the end of the comment period, may not be considered. All comments received are a part of the public record and will generally be posted to <http://www.regulations.gov> without change. All Personal Identifying Information (e.g., name, address) voluntarily submitted by the commenter may be publicly accessible. Do not submit Confidential Business Information or otherwise sensitive or protected information. We will accept anonymous comments (enter "NA" in the required fields if you wish to remain anonymous). Attachments to electronic comments will be accepted in Microsoft Word, Excel, WordPerfect, or Adobe PDF file formats only. The petition, 90-day finding, 12-month finding, draft biological report, draft economic analysis report, draft 4(b)(2) report, and other reference materials regarding this determination can be obtained via the NMFS Pacific Islands Regional Office Web site: http://www.fpir.noaa.gov/PRD/prd_critical_habitat.html or by submitting a request to the Regulatory Branch Chief, Protected Resources Division, National Marine Fisheries Service, Pacific Islands Regional Office, 1601 Kapiolani Blvd., Suite 1110, Honolulu, HI 96814, Attn: Hawaiian monk seal proposed critical habitat. Background documents on the biology of the Hawaiian monk seal, the July 2, 2008, petition requesting revision of its critical habitat, and documents

explaining the critical habitat designation process, can be downloaded from http://www.fpir.noaa.gov/PRD/prd_critical_habitat.html, or requested by phone or e-mail from the NMFS staff in Honolulu (area code 808) listed under **FOR FURTHER INFORMATION CONTACT.** The October 3, 2008, 90-day finding (73 FR 57583), the public comments received on the 90-day finding, and the June 12, 2009, 12-month finding (74 FR 27988), can be viewed at <http://www.regulations.gov> by searching for docket number "NOAA-NMFS-2008-0290".

FOR FURTHER INFORMATION CONTACT: Jean Higgins, NMFS, Pacific Islands Regional Office, (808) 944-2157; Lance Smith, NMFS, Pacific Islands Regional Office, (808) 944-2258; or Marta Nammack, NMFS, Office of Protected Resources (301) 713-1401.

SUPPLEMENTARY INFORMATION:

Background

The Hawaiian monk seal (*Monachus schauinslandi*) was listed as endangered throughout its range under the ESA in 1976 (41 FR 51611; November 23, 1976). In 1986, critical habitat for the Hawaiian monk seal was designated at all beach areas, sand spits and islets, including all beach crest vegetation to its deepest extent inland, lagoon waters, inner reef waters, and ocean waters out to a depth of 10 fathoms (18.3 m) around Kure Atoll, Midway Islands (except Sand Island), Pearl and Hermes Reef, Lisianski Island, Laysan Island, Gardner Pinnacles, French Frigate Shoals, Necker Island, and Nihoa Island in the NWHI (51 FR 16047; April 30, 1986). In 1988, critical habitat was expanded to include Maro Reef and waters around previously designated areas out to the 20 fathom (36.6 m) isobath (53 FR 18988; May 26, 1988).

On July 9, 2008, we received a petition dated July 2, 2008, from the Center for Biological Diversity, Kahea, and the Ocean Conservancy (Petitioners) to revise the Hawaiian monk seal critical habitat designation (Center for Biological Diversity, 2008) under the ESA. The Petitioners sought to revise critical habitat by adding the following areas in the MHI: key beach areas; sand spits and islets, including all beach crest vegetation to its deepest extent inland; lagoon waters; inner reef waters; and ocean waters out to a depth of 200 m. In addition, the Petitioners requested that designated critical habitat in the NWHI be extended to include Sand Island at Midway, as well as ocean waters out to a depth of 500 m (Center for Biological Diversity, 2008).

On October 3, 2008, we announced in our 90-day finding that the petition presented substantial scientific information indicating that a revision to the current critical habitat designation may be warranted (73 FR 57583; October 3, 2008). On June 12, 2009, in the 12-month finding, we announced that a revision to critical habitat is warranted because of new information available regarding habitat use by the Hawaiian monk seal, and we announced our intention to proceed toward a proposed rule (74 FR 27988; June 12, 2009). Additionally, in the 12-month finding we identified the range of the species as throughout the Hawaiian Archipelago and Johnston Atoll (74 FR 27988; June 12, 2009). Although petitioned to designate areas identified by specific boundaries or concepts (*i.e.*, “key” areas), we evaluated habitat needs for the species, including all areas within the identified range to best realize the conservation goals and needs of the species. This proposed rule describes the proposed critical habitat designation, including supporting information on Hawaiian monk seal biology, distribution, and habitat use, and the methods used to develop the proposed designation.

Under section 4(b)(2) of the ESA, we must consider the economic impacts, impacts to national security, and other relevant impacts of designating any particular area as critical habitat. We have the discretion to exclude an area from designation as critical habitat if the benefits of exclusion (*i.e.*, the impacts that would be avoided if an area was excluded from the designation) outweigh the benefits of designation (*i.e.*, the conservation benefits to the Hawaiian monk seal if an area was designated), so long as exclusion of the area will not result in extinction of the species. This evaluation process introduces various alternatives to the revision of designated critical habitat for the Hawaiian monk seal, all of which we considered. The alternative of not revising the designated critical habitat for Hawaiian monk seals would impose no additional economic, national security, or other relevant impacts, but would not provide any additional conservation benefit to the species. This alternative was considered and rejected because such an approach does not meet the legal requirements of the ESA and would not provide for the conservation of the species based on the best available science. The alternative of designating all potential critical habitat areas (*i.e.*, no areas excluded) also was considered and rejected because, for several areas, the national security

benefits of exclusion outweighed the benefits of designation, and we determined that exclusion of these areas would not significantly impede conservation or result in extinction of the species.

An alternative to designating critical habitat within all of the areas considered for designation is the designation of critical habitat within a subset of those areas. Exclusion under section 4(b)(2) of the ESA of one or more of the particular areas considered for designation would reduce the total impacts of designation. The determination of which particular areas and how many to exclude is subject to the Secretary’s discretion after the impacts have been evaluated in accordance with section 4(b)(2) of the ESA. This evaluation was conducted for each area and is described in detail in the draft ESA 4(b)(2) report (NMFS, 2010b). Under this preferred alternative we propose to exclude 5 particular areas within the areas considered. We determined that the exclusion of these areas would not significantly impede the conservation of Hawaiian monk seals nor result in extinction of the species. We selected this as the preferred alternative because it results in a critical habitat designation that provides for the conservation of the Hawaiian monk seal while reducing the national security impacts. This alternative also meets ESA and joint NMFS and U.S. Fish and Wildlife Service (USFWS) regulations concerning critical habitat at 50 CFR part 424.

Hawaiian Monk Seal Natural History and Ecology

In the following sections, we describe the natural history of the Hawaiian monk seal as it relates to the habitat needs of the species. Hawaiian monk seals are members of the Phocidae family, also known as the true seals, which are characterized by a lack of external ear and an inability to draw the hind-flippers under the body for movement on land. The Hawaiian monk seal falls within the primitive genus *Monachus*. Only two other species of seal occur in this genus, the recently extinct Caribbean monk seal (*M. tropicalis*) and the critically endangered Mediterranean monk seal (*M. monachus*). These three monk seal species were widely dispersed geographically (*i.e.*, in the Hawaiian Archipelago, the Caribbean, and the Mediterranean), and disagreement remains regarding the historical biogeography of the monachine seals’ origin and dispersal (Repenning and Ray, 1977; Fyler *et al.*, 2005; Arnason *et*

al., 2006). Regardless of the debate over geographic origin or chronology, the closure of the Central American Seaway would indicate that Hawaiian monk seals were separated from the Caribbean species at least 3 million years ago (mya) (Fyler *et al.*, 2005). At this time period geologically, Hawaiian monk seals would have been able to exploit habitat in the NWHI as well as utilize some habitat in the MHI, including Kauai and Niihau, which were forming as early as 5 and 4.9 mya, respectively (Juvik and Juvik, 1998).

Hawaiian monk seals are wide-ranging, air-breathing aquatic carnivores that spend a majority of their time in the ocean, but continue to rely on terrestrial habitat. Monk seals utilize aquatic habitat for foraging, socializing, mating, resting, and traveling. Adept at propulsion in the water, individual monk seals may travel hundreds of miles in a few days (Littnan *et al.*, 2006) and dive to more than 500 m (1,600 ft) (Parrish *et al.*, 2002). Although a majority of its time is spent in the water, like many other pinnipeds, the Hawaiian monk seal utilizes terrestrial habitat to rest, avoid predators, molt, pup (give birth), and nurse. In contrast to commonly recognized pinnipeds such as sea lions, walrus, and harbor seals, which often haul out in groups of larger numbers, the Hawaiian monk seal is considered solitary, often hauling out individually. The solitary nature extends both on land and in the water; however, monk seals may congregate in small numbers (*e.g.*, males may haul out with and guard females, or several animals may be found hauled out in relative proximity to one another) in favorable haul-out areas (Antonelis *et al.*, 2006).

Adult monk seals reach a length of 2.3 m (7.5 ft) and weigh up to 273 kg (600 lb). On average the adult males are smaller in size than females (NMFS, 2007a). It is thought that Hawaiian monk seals have a lifespan of up to 30 years in the wild (NMFS, 2007a). Females reach breeding age at about 5 to 11 years of age (NMFS, 2010d) depending on their condition. Little is known regarding the sexual maturation of males of the species, but behavior and size suggest similar maturation rates to that of the females (Antonelis *et al.*, 2006). Mating occurs at sea, and gestation is thought to be approximately 11 months. Females typically will haul out on land near the birth site and give birth to a single pup (Johanos *et al.*, 1994). Monk seal births are most common between February and August, but births have been documented at all times of the year (NMFS, 2007a). Upon birth the female will nurse the pup for

approximately 6 weeks; throughout this time period the mother remains with the pup usually fasting and decreasing in mass (Kenyon and Rice, 1959). The nursing period concludes with an abrupt weaning when the mother returns to the marine environment to forage, leaving the pup on its own (Johanos *et al.*, 1994). Females will mate about 3–4 weeks after weaning her pup, and 5–6 weeks after mating she will haul out to molt (NMFS, 2007a). The weaned pups are left to teach themselves to successfully forage. While their foraging skills develop, they depend on fat stores built up during the nursing period, resulting in considerable weight loss (NMFS, 2007a). Juveniles (up to 3 years old) are typically longer but thinner than recently-weaned pups, and juveniles in the NWHI typically do not regain their post-weaning weight until approximately 2 years of age (Johanos *et al.*, 1994).

Adult seals appear silvery white ventrally with dark silvery tinged brown or slate gray pelage (fur) dorsally, and as the hair ages, the ventral pelage takes on a yellow tinge while the dorsal pelage may appear dull brown or darker (Kenyon and Rice, 1959). When monk seals stay at sea for an extensive period, they may develop a red or green tinge from algal growth on their pelage (Kenyon and Rice, 1959). Monk seals undergo an annual molt, which is termed a catastrophic molt because the entire layer of pelage (skin and hair) is shed, leaving a new silvery grey coat underneath. During their annual molt, Hawaiian monk seals may haul out on land, staying ashore 10–14 days or more (NMFS, 2007a). At birth, pelage is black and may occasionally be marked with small white patches, referred to as natural bleaches (Kenyon and Rice, 1959). The black pelage is lost during the postnatal molt, which occurs around the time of weaning.

Range

In the 12-month finding (74 FR 27988; June 12, 2009), we identified the range of the Hawaiian monk seal to include habitat throughout the Hawaiian Archipelago and Johnston Atoll. This determination was based on pupping (birth) and sighting data from the Hawaiian Archipelago collected by the NMFS Pacific Islands Fisheries Science Center (PIFSC), Protected Species Division (PSD). Verified past accounts from Johnston Atoll were used to determine that the Atoll may be considered as part of the geographical area occupied by the species (NMFS, 2001). Unconfirmed sightings of Hawaiian monk seals from Palmyra

Atoll (1,800 km south of NWHI); Wake Island (2,000 km southwest of NWHI); Bikini Atoll and Mejit Island in the Marshall Islands (2,400 km southwest of NWHI) (NMFS, 2010c) were recognized, but substantial evidence was not found to incorporate these areas into the species' range. In discussing the range of the species, we also acknowledged that animals have been historically relocated to manage serious threats to the population or individual animals. Relocations include: 21 males from the NWHI to the MHI, three females from the MHI to the NWHI, 11 males from the NWHI to Johnston Atoll, and 1 male from the MHI to Johnston Atoll. Female Hawaiian monk seals have not been relocated to the MHI.

Population Status and Trends

The current Hawaiian monk seal population is estimated at 1,161 individuals (NMFS, 2009). The estimate includes the sum of estimated abundances at the six main NWHI breeding subpopulation sites, an extrapolation of counts at Necker and Nihoa Islands, and an estimate of minimum abundance in the MHI (NMFS, 2009). Minimum population estimates for 2008 based on the number of seals identified from the six main NWHI subpopulations was 913 seals, and for the MHI, 113 seals (NMFS, 2009). Additional information regarding the methods used to determine estimates may be found in the NMFS annual stock assessment reports. The breeding subpopulations identified are geographically separated, but re-sights of identified animals indicate seal movement among the NWHI, among the MHI, and, on rare occurrence, from the NWHI to the MHI (Littnan *et al.*, 2006; NMFS, 2009). The complete history of Hawaiian monk seal population status and trends is unknown; however, data and historical accounts do indicate impacts to population trends from human exploitation and disturbance. The following is a review of pertinent information and trends with regard to population status.

The first beach counts of Hawaiian monk seals in the NWHI occurred in the late 1950s, but prior to that time period human-influenced declines in population can be inferred from historical accounts. The first written accounts during Lisianski's exploration in the 1800s indicated seals of the NWHI being exploited for oil, pelts, or food (Ragen, 1993). Reports from the end of the same century highlight the impact of early human exploitation on the seal population, with accounts of no seals being seen on extended visits to Midway and Laysan, areas where

numerous seal sightings were indicated in the past (Ragen, 1999). Following the period of exploitation in the 1800s, areas in the NWHI were settled for entrepreneurial and military reasons. Descriptions of seal sightings at this time indicate behavioral changes, including seals showing a habitat preference for sites less accessible to human inhabitants (Ragen, 1999). Starting in the late 1950s, counts were made at the islands almost every year, with a high count of 1,206 seals recorded in the spring of 1958 (NMFS, 1983). Although these counts do not provide a total population estimate (because the proportion of the total included in the count was not determined), the beach counts do demonstrate a decline between the late 1950s and mid-to-late 1970s. Counts in the 1970s ranged from 500–600 seals, less than half the high counts from the late 1950s (NMFS, 1983). This decrease was most evident in the western portions of the range and has been associated with human disturbance related to military settlement (Kenyon and Rice, 1959; Ragen, 1993). Military activities and presence eventually ceased at these sites, and the islands have been managed as a refuge; in 2006 the islands and surrounding waters were incorporated into the Northwestern Hawaiian Islands Marine National Monument, now renamed Papahānaumokuākea Marine National Monument. Periods of decline and stability have been documented since the area has been managed as a refuge, with the most recent period of decline beginning in 2001 (NMFS, 2007a). In 2008, beach counts of juveniles and adults (*i.e.*, all seals except pups) were 68 percent lower than those of the late 1950s (NMFS, 2009). Total abundance at the six primary NWHI sites (French Frigate Shoals, Laysan, Lisianski, Pearl and Hermes, Midway, and Kure) is declining at a rate of about 4.5 percent per year (NMFS, 2009). While the earlier declines are marked by human exploitation and disturbance, the current declines in the NWHI may be driven by food limitations and other sources of mortality, which disproportionately impact juvenile seal survival and consequently reduce recruitment into breeding age classes. With fewer adults of breeding age, the current age structures of the NWHI subpopulations indicate that declines are likely to continue for at least the next decade (Baker *et al.*, 2010). A detailed account of the Hawaiian monk seal population status and trends in the NWHI is provided in the recovery plan (NMFS, 2007a).

It is generally accepted that Hawaiian monk seals are native to the islands of the northwest, as discussed earlier; however, conflicting views remain regarding Hawaiian monk seal historical use of the MHI. The lack of seal references in the Hawaiian oral tradition has led some to believe that Hawaiian monk seal use of this region is a recent phenomenon. However, fossil remains of seal bones discovered at an archeological site from the Island of Hawaii dating from 1,400–1,760 years ago (Rosendahl, 1994) has led support to an alternate view suggesting that Hawaiian monk seals may have been forced to peripheral habitat by exploitation or disturbance during early Polynesian settlement (Ragen, 1993; Baker, 2004; Baker and Johanos, 2004). Anecdotal evidence, including the Polynesian extirpation of other avian species during early settlement (Olson and James, 1982; Diamond *et al.*, 1989), the availability of coastal habitat (Juvik and Juvik, 1998), and the monk seal presence in the Pacific basin well before the Polynesian settlement, lends additional credence to this theory (Olson and James, 1982; Diamond *et al.*, 1989; Juvik and Juvik, 1998; Athens *et al.*, 2002; Kirch *et al.*, 2004; Flyler *et al.*, 2005). Thus, Polynesian settlement of the MHI may have driven Hawaiian monk seals to the NWHI, where human settlements were limited by the availability of fresh water (Ragen, 1999; Baker and Johanos, 2004). In summary, this view presents the current growth and dispersal of the Hawaiian monk seal population in the MHI as a re-colonization event.

More recent MHI history provides the historical accounts of seal sightings indicating the occasional presence of seals, including sightings from as early as 1900 and later accounts spanning into the 1950s throughout the MHI (Bailey, 1952; Kenyon and Rice, 1959). Niihau residents reported that seals appeared regularly after 1970 (Baker and Johanos, 2004), and NMFS PIFSC's records from 1980–1986 reveal 125 seal sightings recorded throughout the MHI (NMFS, 2010e). These sightings do not represent a discrete number of seals, because the sightings are incidental and seal identification is unknown; however, it does reveal the presence of seals throughout the islands in the early 1980s prior to the first critical habitat designation. By as early as 1994, a small naturally-occurring population of male and female monk seals was present in the MHI. Since the mid-1990s, an increasing number of documented sightings and annual births of monk seal pups have occurred in the MHI.

Estimates using systematic surveys or sightings of uniquely identified individuals within the MHI indicate an increase in numbers as demonstrated by the following estimates: 45 individuals reported in 2000, 77 individuals in 2005, and 113 individuals in 2008 (NMFS, 2007b; NMFS, 2009). The growth in numbers in the MHI is not likely to be a consequence of increased migration from the NWHI, since only 5 seals have been documented to have migrated from the NWHI to the MHI since the 1980s when regular tagging efforts began (Baker *et al.*, 2010). It is likely that seals in the MHI are growing in numbers due to the increase in births and have been dispersing from under-documented areas (such as Niihau) to the rest of the chain (Baker and Johanos, 2004).

Northwestern Hawaiian Islands vs. Main Hawaiian Islands

There is no genetic evidence suggesting monk seals occurring in any part of the archipelago are genetically distinct from monk seals elsewhere in the range (Schultz *et al.*, 2009); thus, the Hawaiian monk seal consists of one population distributed throughout the Hawaiian Archipelago. While the population is not genetically distinct in the NWHI and MHI, differences between Hawaiian monk seal population status, habitat, research efforts, and threats to the seals utilizing these two regions support a separate approach to management and conservation efforts (Baker *et al.*, 2010). The following discussion summarizes some of the differences identified between the two management areas and refers to the seals in these geographic areas as separate populations due to these differences.

Recruitment trends differ between the NWHI and MHI. In the NWHI, many of the reproductive subpopulations are experiencing a decline in breeding subpopulations that is attributed primarily to food limitation (NMFS, 2007a). The impacts resulting from food limitation are most strongly expressed in poor juvenile condition and survival, and low age-specific reproductive rates (delayed maturity) (Antonelis *et al.*, 2006; NMFS, 2007a). High juvenile mortality rates result in fewer females achieving reproductive maturity, thereby causing an imbalanced age structure, which in turn contributes to the continued decline. In contrast, the MHI portion of the population is increasing. This is evident by the growing number of identified individuals and number of pups born annually (Baker and Johanos, 2004). In addition to the difference in population growth, monk seals in the MHI appear

to be in better physical condition than those in the NWHI. In general, MHI females begin reproducing at a younger age, and attain higher birth rates than females in the NWHI (Baker *et al.*, 2010). In 2008, a 4 year old MHI female became the youngest documented Hawaiian monk seal of known age to pup (NMFS, 2010f). The successfully reproducing females of the MHI are also producing robust pups. Measurements from axillary girths and standard lengths of weaned pups from the MHI were significantly greater in comparison to the same measurements from weaned pups from the NWHI, which are thought to have better foraging conditions for the mothers in the MHI (Baker and Johanos, 2004; Baker *et al.*, 2006). Additionally, the estimated survival from weaning to age 1 is 77 percent in the MHI, which is much higher than the 42–57 percent survival estimated for breeding subpopulations in the NWHI. This disparity in population status between the two regions is well reflected in recent efforts to estimate population growth and decline of monk seals in the separate areas. If demographic trends continued at the current rates, the MHI and NWHI portions of the population would equalize in 15 years (Baker *et al.*, 2010).

Factors influencing foraging success may explain the disparity between the two regions. These factors can be attributed to an inequity in ecological competition on several levels. First, low numbers of monk seals in the MHI may point to a greater per capita availability of prey than in the NWHI (Baker and Johanos, 2004). Specifically, the lower number of seals in the MHI across a large expanse of available foraging habitat allows for less intra-specific competition for food resources. Secondly, the NWHI is located within the Papahānaumokuākea Marine National Monument, one of the largest and best-protected marine areas in the world, where commercial fishing efforts have been minimized in past years and recently completely ceased. The protected ecosystem of the NWHI, in comparison to the MHI, has a greater number of large predators. The sharks, jacks, and other demersal fish that have been observed to compete directly with monk seals in the NWHI are much less abundant in the MHI. In other words, inter-specific competition is likely lower in the MHI (Baker and Johanos, 2004; Parrish, 2008). Additionally, competition between humans and monk seals may be limited in the MHI because seals prefer small (usually less than 20 cm, or 8 in) eels, wrasses, and other benthic species not commonly sought

by fishermen (Parrish *et al.*, 2000). All of these factors appear to positively influence the population status of monk seals in the MHI at this time, but these favorable dynamics may shift as the population grows in the MHI.

Additional differences between the two regions are further reflected in the threats to the species, and, consequently, in the management priorities and activities for each population, which are discussed in detail in the Hawaiian Monk Seal Recovery Plan (NMFS, 2007a). One of the threats discussed includes that of habitat loss (NMFS, 2007a). The low-lying islets and islands of the NWHI are particularly susceptible to sea level rise, an impact that results from several factors associated with climate change, including thermal expansion of the warming oceans and melting of glaciers and ice caps (Baker *et al.*, 2006). In the 20th century sea levels rose 15 cm, and increases are expected to continue (Baker *et al.*, 2006). As a result of sea level rise, important pupping and haul-out habitat may be lost (Baker *et al.*, 2006). While the threat of sea level rise may be accelerated by anthropogenic forces, human activities which influence this threat are considered to be of a complex global scale. Management efforts in the NWHI area would more likely focus on the preservation of specific areas for pupping and hauling out and may include regular monitoring for changes in elevation at the various islets and islands. Long-term mitigation planning at specific sites may also play a role in conserving habitat in the NWHI (Baker, 2006). In the MHI, habitat loss is equally a threat, but in the MHI, coastal anthropogenic development plays a pronounced role by exacerbating the threat to coastal habitat. Like most other coastal states, Hawaii's dependence on coastal resources has led to increased development of shorelines. In response to natural erosion processes, urban shorelines were often hardened to protect assets. Efforts to harden shorelines alter the natural hydrodynamic system of waves and currents, affecting sand transport rates that control the erosion-accretion process of beaches (Defeo *et al.*, 2009). Consequences of armoring vary depending on the placement of the structure and the surrounding hydrodynamics, but have included passive erosion on the armored beach, flanking erosion of shorelines adjacent to engineered structures, and possibly the enhanced erosion on protected coasts (Venter *et al.*, 2006). On Oahu past reliance on shoreline armoring to

mitigate coastal erosion has resulted in widespread beach narrowing and sand loss (Fletcher *et al.*, 1997). Current management measures in the MHI are aimed at coastal setbacks (*i.e.*, planning development inland from the water's edge and the threat of erosion), but the increased demand for the use of coastal areas for industry, recreation, and private use may put continued pressure on developers to increase access to "new" beach areas. In the future, remote beaches may be squeezed between seaward directed development and rising sea levels, leaving no room for natural sediment dynamics (Defeo *et al.*, 2009). As the number of Hawaiian monk seals increases in the MHI and development continues, available habitat for hauling out and pupping will become increasingly important.

Direct anthropogenic threats from activities within the Papahānaumokuākea Marine National Monument have been minimized through management measures aimed at protecting the unique resources within the NWHI. Despite being located in this highly protected area, the Hawaiian monk seals continue to face threats in the NWHI that require management. Twenty years of robust population monitoring data in the NWHI aids in making these management decisions. Data reflecting poor juvenile survival has focused management efforts towards positively influencing population trajectories by increasing efforts which support monk seal health during the fragile first years. Conversely, the MHI population is only in the early stages of scientific monitoring efforts, as previous research efforts were concentrated towards NWHI. Currently, a great deal of information regarding MHI seals is received from a growing volunteer network, and management efforts in the MHI have been focused on threats centered on anthropogenic influences. Growth in seal numbers in the MHI has increased human and seal interaction, and many coastal residents and visitors are unfamiliar with the specific needs of the species. This increased overlap in use of coastal and marine habitat has led to fishery interactions (hookings and entanglements), disturbance and harassment of seals, and sometimes injuries to humans (Baker *et al.*, 2010). Impacts from pollution and runoff into the aquatic environment also pose health hazards to the species in the MHI; these threats are not factors considered in the NWHI (Littnan *et al.*, 2006). In addition to these unintentional anthropogenic threats, three seals were recently documented shot and killed in the MHI.

As discussed above, differences between the NWHI and MHI portions of the population present unique research and management challenges for the Hawaiian monk seal. With the continued decline in numbers and the fragile status of reproductive classes in the NWHI, the survival of the species as a whole may become increasingly dependent on the success of the portion of the population in the MHI along with management efforts taken to ensure that success.

Habitat

The Hawaiian monk seal depends on aquatic environments as well as terrestrial environments for survival. While Hawaiian monk seals spend a majority of their time in the water, the terrestrial component of their habitat plays a vital role throughout all life stages. Monk seals utilize terrestrial habitat to haul out for resting, molting, pupping, nursing and avoiding predators. Since monk seals may remain at sea for several days or more at a time, resting on land is essential to conserve energy. Resting commonly occurs on sandy beaches, but may also occur on rocky shores, rock ledges, emergent reefs, and even shipwrecks (Antonelis *et al.*, 2006). While on shore, monk seals may take shelter from wind and rain under shoreline vegetation. When ocean conditions are rough, monk seals may spend a greater proportion of time resting on land. Resting on land may be for a few hours to several days at a time (Antonelis *et al.*, 2006).

Terrestrial habitat is essential for pupping and nursing of pups. Pupping and nursing areas are usually sandy beaches adjacent to shallow protected water (Westlake and Gilmartin, 1990). Individual females appear to favor certain pupping locations, returning to them year after year. Pregnant females come ashore a few days before giving birth to a pup weighing approximately 16 kg (35 lb). Pups nurse for 5 to 6 weeks (Johanos *et al.*, 1994) and weigh 50–100 kg (110–220 lb) at weaning. During nursing, mother and pup remain in close proximity to each other, and the mother is protective of her pup. Although the pup is able to swim at birth, nursing is done on land and the mother-pup pair usually remains on land for the first few days after the pup is born. The mother gradually begins swimming with her pup in the shallows, returning to the general area around the pupping site. As weaning approaches, the mother-pup pair spends more time in the water, venturing further away from the pupping site. After weaning, pups typically remain in the shallows near their nursing areas for several

weeks before venturing into deeper foraging areas (Kenyon and Rice, 1959; Henderson, 1988). Hauling out on land is also required for molting, when old pelage is shed. Monk seals usually remain on land during the annual molting; the process lasts approximately 1 to 2 weeks (Kenyon and Rice, 1959).

Hawaiian monk seals utilize the aquatic components of their environment for thermoregulating, resting, interacting, mating, and foraging. Observation of 24 adult male monk seals wearing animal-borne video cameras showed that greater than 50 percent of the time spent underwater was spent resting or interacting with other seals and that much of these activities were spent in shallower depths (Parrish, 2000; Parrish, 2004). Resting may also occur at sea or in shallow, submerged caves. Little has been observed regarding monk seals' mating behavior in the marine environment; however, gains in foraging research provide new insight into monk seal foraging since the time of the previous critical habitat designation.

Previous understandings of monk seal foraging assumed monk seals were feeding on localized prey species on near shore coral reef structures and on offshore banks surrounding the haul-out areas in the NWHI (NMFS, 1983). Although transit and deeper diving behavior was acknowledged in the 1983 recovery plan, little was known regarding monk seal foraging behavior at deeper depths, and the extent and frequency of foraging transits were not well understood. Information from satellite transmitter studies began to transform these concepts by regularly demonstrating seals transiting to neighboring banks (Parrish and Littnan, 2007). Additionally, digestion studies began to illustrate that scat found on the beach might only represent prey from close reefs and not the seals' entire diet (Goodman-Lowe, 1998; Goodman-Lowe *et al.*, 1999; Parrish and Littnan, 2007). Later, Crittercam footage (or head-mounted cameras) revealed seals ignoring reef fish in the coral shallows in favor of foraging on deeper atoll slopes and neighboring banks. Additionally, depth recordings from these animals demonstrated foraging at depths greater than previously recognized (Parrish *et al.*, 2000; Stewart, 2006). These data combined have reshaped the knowledge of how seals utilize their foraging habitat and where seals are feeding.

Today monk seals are considered to be foraging generalists consuming a wide variety of prey species. Goodman and Lowe (1998) identified inshore, benthic, and offshore teleosts as the

most represented prey items in monk seal scat, followed by cephalopods and crustaceans. From the 940 scats sampled, the study was able to identify 31 families of teleosts and 13 families of cephalopods (Goodman and Lowe, 1998). Additionally, fatty acid analysis of the monk seal diet has begun to identify an even broader number of prey species consumed by the Hawaiian monk seal (Iverson, 2006). Fatty acid analysis studies have also demonstrated substantial variation in diet among individuals, demographic groups (between juveniles and adults/sub adults), and locations (Iverson, 2006), indicating that individual monk seal foraging preferences and capabilities play a role in selection of foraging habitat. Recently increased resolution of regurgitation samples has identified the remains of morid cod, which are a species typically found at subphotic depths or depths greater than 95 m (Longnecker *et al.*, 2006). These dietary analyses, that indicate individual seal foraging preferences and seals foraging at greater depths, are consistent with seal foraging ecology studies discussed below.

Recent studies using new advances in technology have demonstrated that Hawaiian monk seals forage in marine habitats anywhere from a meter to several hundred meters in depth. Time-depth recorders from several studies revealed a large portion of effort at depths between 50 and 300 m (164–984 ft), which coincides with the bank and slope habitats used by prey species often detailed in monk seals' diets (Parrish 2004; Parrish and Abernathy 2006). Foraging studies by Parrish describe these preferred foraging habitat as low-relief substrates such as sand and talus in areas of habitat uniformity at greater depths than previously considered for critical habitat (Parrish and Littnan, 2007; Parrish, 2008), where adult seals are able to move large, loose talus fragments found in the premium foraging habitat to reach the prey hiding underneath (Parrish *et al.*, 2000). Although these sites are often greater distances from haul-out sites, it appears that the less sheltered prey in the uniform habitat may make this area energetically preferable to the seals (Parrish *et al.*, 2000). Studies in the NWHI (Parrish *et al.*, 2002; Stewart, 2006) have also shown that adult monk seals may forage at 300–500 m (1,000–1,600 ft), sometimes visiting patches of deep corals (Parrish 2004; Parrish *et al.*, 2002). A summary of telemetry data from 37 male and female adults tagged throughout the NWHI revealed that 17 seals appeared to be specializing in

subphotic foraging (Parrish 2004). This calculates out to 46% of the adults tracked, which Parrish (2004) extrapolated out to be about a fourth of the entire population. The use of these deeper habitats may reflect monk seals taking advantage of readily available prey in a habitat with decreased inter-specific competition (Parrish, 2008). The maximum depth at which seals have been documented to forage is around 500 m (1640 ft) (Parrish 2004); however, monk seals are almost certainly capable of exceeding depths of 550 m and the extent of foraging depth may still be unknown (Parrish 2004; Stewart *et al.* 2006).

Foraging studies with instrumented juvenile monk seals (1–3 years old) in the NWHI illustrated foraging behavior similar to that of adult monk seals. Feeding occurred both within shallow atoll lagoons 10–30 m (33–98 ft) and on deep reef slopes (50–100 m/160–325 ft), usually over sand rather than talus (Parrish *et al.*, 2005). Video footage of juvenile seal foraging showed seals moving along the bottom, flushing prey with a variety of techniques, including probing the bottom with their nose, using their mouth to squirt streams of water at the substrate, and flipping small rocks with their heads and shoulders (Parrish *et al.*, 2005). While juvenile seals are able to dive to depths similar to adults, the smaller seals likely do not yet have the size or experience to engage in the successful large talus-foraging behavior exhibited by adults (Parrish *et al.*, 2005). In addition to the preferred habitat, limited data also indicate that juvenile seals may occasionally forage at the deeper ranges used by adults (Parrish 2004).

Although much less information is available regarding monk seals foraging in the MHI, 11 juvenile and adult monk seals were tracked in 2005 using satellite-linked radio transmitters showing location and summaries of dive depths. This study indicated that seals usually remained in near shore waters within the 200 m (650 ft) isobath (Littnan *et al.*, 2006). Since that study, recent tracking of Hawaiian monk seals with cell phone tags in the MHI demonstrates some diving depths up to 489 m (1,555 ft) (NMFS, 2010g).

In general, the selection of foraging habitat by monk seals may be influenced by many factors, including environmental conditions that influence abundance and composition of prey assemblages; conditions that influence prey availability and capture success such as intra-specific and inter-specific competition; as well as individual circumstance including size and age class, preferred prey, and individually

favored foraging tactics. These variables all influence where and how Hawaiian monk seals utilize foraging habitat within the marine environment.

In summarizing monk seal habitat, features that support resting, reproduction, molting, predator avoidance, and foraging are essential for the conservation of this species. Therefore, Hawaiian monk seal critical habitat must include terrestrial and marine areas. Terrestrial areas include a sanctuary for hauling out for resting, molting, pupping, nursing, and avoiding predators. Terrestrial habitat consists of near shore or emergent surfaces where monk seals can haul out. Those areas preferred for pupping consist of a subset of haul-out habitat and are usually on sandy beaches adjacent to shallow marine areas. These shallow marine areas provide protection for pups while they become accustomed to unaccompanied life in the marine environment and begin learning to forage on their own. The marine habitat includes areas used for thermoregulating, resting, interacting, mating, and foraging. Foraging habitat for Hawaiian monk seals has been demonstrated to be at depths as great as 500 m in the NWHI. Recent declines in the Hawaiian monk seal population point to food limitations in the NWHI, especially for juvenile monk seals, making marine foraging areas particularly critical components of monk seal habitat.

Critical Habitat

Section 4(b)(2) of the ESA requires us to designate critical habitat for threatened and endangered species “on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat.” This section also grants the Secretary of Commerce (Secretary) discretion to exclude any area from critical habitat if he determines “the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat.” However, the Secretary may not exclude areas that “will result in the extinction of the species.”

The ESA defines critical habitat under section 3(5)(A) as: “(i) the specific areas within the geographical area occupied by the species, at the time it is listed * * *, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied

by the species at the time it is listed * * * upon a determination by the Secretary that such areas are essential for the conservation of the species.”

Once critical habitat is designated, section 7 of the ESA requires Federal agencies to insure they do not fund, authorize, or carry out any actions that will destroy or adversely modify that habitat. This requirement is additional to the section 7 requirement that Federal agencies insure their actions do not jeopardize the continued existence of listed species.

Methods and Criteria Used To Identify Critical Habitat

In the following sections, we describe the relevant definitions and requirements in the ESA, our implementing regulations, and the key information and criteria used to prepare this proposed critical habitat revision. In accordance with section 4(b)(2) of the ESA and our implementing regulations (50 CFR Part 424), this proposed rule is based on the best scientific information available.

To assist with the revision of Hawaiian monk seal critical habitat, we convened a critical habitat review team (CHRT) consisting of seven biologists from NMFS PIFSC and the Pacific Islands Regional Office (PIRO). The CHRT members had experience and expertise in Hawaiian monk seal biology, distribution and abundance, and management. The CHRT used the best available scientific data and their best professional judgment to: (1) Identify the physical and biological features essential to the conservation of the species that may require special management considerations or protection; (2) identify specific areas within the occupied area containing those essential physical and biological features; (3) evaluate the conservation value of each specific area; and (4) identify activities that may affect any designated critical habitat. The evaluations and conclusions are described in detail in the following sections. We concur with these conclusions.

Physical or Biological Features Essential for Conservation

Joint NMFS–USFWS regulations (50 CFR 424.12(b)) state that in determining what areas are critical habitat, the agencies “shall consider those physical and biological features that are essential to the conservation of a given species and that may require special management considerations or protections.” Features to consider may include, but are not limited to: “(1) space for individual and population

growth, and for normal behavior; (2) food, water, air, light, minerals, or other nutritional or physiological requirements; (3) cover or shelter; (4) sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; and generally; (5) habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.” The regulations require the agencies to “focus on the principal biological or physical constituent elements within the defined area that are essential to the conservation of the species. Known primary constituent elements shall be listed with the critical habitat description. Primary constituent elements may include, but are not limited to, the following: roost sites, nesting grounds, spawning sites, feeding sites, seasonal wetland or dryland, water quality or quantity, host species or plant pollinator, geological formation, vegetation type, tide, and specific soil types.” For the purposes of this proposed rule, the essential features are the same as primary constituent elements.

In the 12-month finding (74 FR 27988; June 12, 2009), we identified five preliminary essential features in order to identify to the public areas that may be under consideration for the critical habitat. For this proposed rule, we used the best available scientific information to modify and supplement the essential features announced in the 12-month finding to best describe those elements or areas essential for the conservation of the Hawaiian monk seal. The following six essential features were identified.

X (1) Areas With Characteristics Preferred by Monk Seals for Pupping and Nursing

Hawaiian monk seals have been observed to give birth and nurse in a variety of terrestrial coastal habitats; however, certain beaches may be preferred for pupping at the various atolls and islands within the range. Preferred pupping areas generally include sandy, protected beaches located adjacent to shallow, sheltered aquatic areas (Westlake and Gilmartin, 1990). Terrestrial pupping habitat may include various substrates such as sand, shallow tide-pools, coral rubble, or rocky substrates, as long as these substrates provide accessibility for seals for hauling out. Characteristics of preferred sites may also incorporate areas with low lying vegetation utilized by the pair for shade or cover (Antonelis *et al.*, 2006). Preferred coastal areas may attract multiple mothers to the same area year after year for birthing (Antonelis *et al.*, 2006); however, due to

the solitary nature of the species, some mothers may prefer to return to a lesser used location year after year. As discussed in the natural history of the species, female Hawaiian monk seals nurse their pups for approximately 6 weeks, then abruptly abandon the pup (Johanos *et al.*, 1994). This dramatic weaning leaves the pup independent, subsisting on fat stores until it learns to successfully forage on its own (NMFS, 2007a). The preferred habitat for pupping and nursing provides area necessary for normal behavior, growth, and survival through the time period when pups are dependent on the mothers for sustenance and protection. These areas also provide a familiar sanctuary for the weaned pup during its transition to independence.

X (2) Shallow, Sheltered Aquatic Areas Adjacent to Coastal Locations Preferred by Monk Seals for Pupping and Nursing

Preferred pupping and nursing sites are often adjacent to shallow, sheltered aquatic areas (Westlake and Gilmartin, 1990). These sheltered marine areas provide protection for the mom and pup pair from predators and extreme weather events, as well as habitat for thermoregulatory cooling and swimming (Westlake and Gilmartin, 1990; NMFS, 2007a). Upon weaning, the newly independent pup will utilize the sheltered marine area to acclimate to life on its own, utilizing the habitat for swimming, exploring, socializing, thermoregulatory cooling, and the first attempts at foraging. Characteristics of the sheltered aquatic sites may include reefs, tide pools, gently sloping beaches, and shelves or coves that provide refuge from storm surges and predators. Marine habitat adjacent to preferred pupping and nursing areas provides area necessary for the normal behavior, growth, and survival during early juvenile development for the Hawaiian monk seal.

X (3) Marine Areas From 0 to 500 m in Depth Preferred by Juvenile and Adult Monk Seals for Foraging

Food limitation is identified in the recovery plan as a critical threat to the Hawaiian monk seal; therefore, foraging grounds within the marine environment are an essential component in the recovery and conservation of the species. As identified in the habitat section of this report, Hawaiian monk seals forage in marine habitat anywhere from 0 to 500 m. This habitat includes barrier reefs of atolls, leeward slopes of reefs and islands, sites along the Hawaiian Islands Archipelago's submarine ridge, nearby seamounts, and submerged reefs and banks (Stewart,

2006). Preferred foraging habitat of adult monk seals is characterized by sand terraces and talus slopes that may range in depths of 50–100 m (160–325 ft) deep around their home atoll or island (Parrish and Littnan, 2007). These habitats provide substrate and materials for preferred benthic and cryptic prey species to hide. While the slopes are characterized as preferred feeding areas, recent diving, camera, and fatty acid analysis studies demonstrate that seals are feeding at depths greater than previously believed (300 m–500 m) (Parrish *et al.*, 2002; Iverson, 2006; Stewart, 2006). The use of these deeper habitats may reflect monk seals taking advantage of readily available prey in a habitat with decreased inter-specific competition (Parrish, 2008). Habitat at these greater depths may be comprised of deep water coral beds or the barren habitats prey species move between (Parrish *et al.*, 2002). Fatty acid analysis studies have demonstrated substantial variation in diet among individuals, demographic groups (between juveniles and adults/sub adults), and locations (Iverson, 2006). Thus, individual monk seal foraging preferences and capabilities play a role in selection of foraging habitat. The steady decline of the species (attributed mainly to food limitation) coupled with individual foraging tactics and prey preferences, reveals a need for protection that incorporates the features found in these foraging areas for this species.

X (4) Areas With Low Levels of Anthropogenic Disturbance

Hawaiian monk seals utilize terrestrial habitat to haul out for resting, pupping and nursing, molting, and as a refuge from predators (NMFS, 2007a). The high energetic demands of life in the marine environment make resting behavior essential to the fitness of individual animals and the overall population. Human interactions with monk seals have the potential to cause disturbance and subsequent abandonment of a favored haul-out site or pupping area for less suitable locations. New locations may lack refuge characteristics, leaving the seals more vulnerable to predation or other environmental threats. Generally, Hawaiian monk seals seek areas that are undisturbed by large numbers of humans or human induced interactions (such as interactions with dogs or vehicles). Hawaiian monk seal intolerance of human disturbance is best documented in the NWHI following human settlement on specific islands throughout the various atolls (NMFS, 2007a). Kenyon (1972) documented changes in seal haul-out patterns at the

human settled islands at Midway Islands, French Frigate Shoals, and Kure Atoll. Changes observed included seals avoiding human inhabited islands during day time hours and seals hauling out on the islands or islets less frequented by humans (Kenyon, 1972). At Kure Atoll the population experienced depressed rates of reproduction and decreased juvenile survival during this period of human settlement. Kenyon (1972) related the poor juvenile survival to female adults either selecting inferior pupping habitat prior to birth or prematurely abandoning or weaning young, as a response to human disturbance. The preference for less disturbed areas is also evident in monk seal selection of many of the favored haul-out sites in the MHI, which consequently are located in the less populated areas (Baker and Johanos, 2004).

X (5) Marine Areas With Adequate Prey Quantity and Quality

Food limitation is identified in the recovery plan as a critical threat to the Hawaiian monk seal; therefore, prey quantity and quality within the marine foraging habitat is an essential component in the recovery and conservation of the species. Monk seals are considered foraging generalists, feeding on a wide variety of prey species. Goodman and Lowe (1998) identified inshore, benthic, and offshore teleosts as the most represented prey items in monk seal scat, followed by cephalopods and crustaceans. From the 940 scats sampled, the study was able to identify 31 families of teleosts and 13 families of cephalopods (Goodman and Lowe, 1998). Additionally, fatty acid analysis of the monk seal diet has identified a broad number of prey species consumed by the Hawaiian monk seal (Iverson, 2006). While the broad number of prey species makes identifying an individual prey species for specific protections difficult, the foraging habits of seals help to identify areas and habitat types that are regularly utilized, including the sand terraces, talus slopes, submerged reefs and banks, nearby seamounts, barrier reefs, slopes of reefs and islands, and deep coral beds. Within these habitats, conditions, such as water quality, substrate composition, and available habitat, should support growth and recruitment of prey species to the extent that monk seal populations are supported. Current evidence from shrinking seal subpopulations in the NWHI indicates that prey quantity and quality are essential to recovery, but further research is necessary to identify direct correlations to specific threats to the

prey species as well as to identify appropriate management actions.

(6) Significant Areas Used by Monk Seals for Hauling Out, Resting, or Molting

Hawaiian monk seals utilize terrestrial habitat to haul out for resting, pupping and nursing, molting, and as a refuge from predators (NMFS, 2007a). Energetic requirements of life in the marine environment make resting behavior important, and, consequently, terrestrial haul-out areas are an essential component for conservation. These haul-out sites are generally characterized by sandy beaches, sand spits, or low shelving reef rocks accessible to seals, but many substrates may be used including emergent reef (Antonelis *et al.*, 2006). Favored sites may also reflect areas remote in nature or with low levels of human disturbance. Although Hawaiian monk seals are considered to be a solitary species (in comparison to other gregarious pinnipeds, such as sea lions), they may still haul out in small numbers (Antonelis *et al.*, 2006) and are likely to frequent general areas utilized by other seals due to the preferences for accessible and remote habitat.

Geographical Area Occupied and Specific Areas

One of the first steps in the critical habitat revision process was to define the geographical area occupied by the species at the time of listing and to identify specific areas within this geographically occupied area that contain at least one of the essential features that may require special management considerations or protection. As discussed in the Range section above, the range of the Hawaiian monk seal was defined in the 12-month finding on June 12, 2009 (74 FR 27988; June 12, 2009), as throughout the Hawaiian Archipelago and on Johnston Atoll. Using the identified range, we identified "specific areas" within the geographical area occupied by the species that may be eligible for critical habitat designation under the ESA. For an occupied area to meet the criteria of critical habitat, it must contain specific areas with one or more of the essential features that may require special management or protection. We identified areas that met the criteria of critical habitat within the range of the species, including areas in the NWHI and the MHI. Johnston Atoll was considered for potential critical habitat, but we determined that the lack of recent seal use, the remote nature of the atoll from the Hawaiian Archipelago, and the hazardous conditions associated

with past human use (including contamination, erosion, and debris (communication with USFWS staff)) rendered the features in this area inadequate for seal conservation. Each specific area was selected to reflect current seal use as well as anticipated habitat needs for recovery for the species. These specific areas are identified across the range, but areas have been grouped according to the NWHI and MHI management units to express similarities in population status, essential features present, and the activities that may affect the essential features such that special management considerations or protections are needed. The draft Biological Report (NMFS, 2010a; available via our Web site at http://www.fpir.noaa.gov/PRD/prd_critical_habitat.html, via the Federal eRulemaking Web site at <http://www.regulations.gov>, or upon request (see ADDRESSES)) describes in detail the methods used to assess the specific areas and provides the biological information supporting the assessment. The following paragraphs provide a brief description of the essential features in each area and additional detail regarding the methods for delineating the specific areas.

Specific Areas in the NWHI

While identifying specific areas in the NWHI, we first considered areas incorporated in the current (1988) designation of critical habitat and agreed that the identified areas in the NWHI continue to meet the definition of critical habitat under the ESA. Although omitted from the current designation, we also identified that Sand Island at Midway Islands provides essential features, including pupping and nursing areas and haul-out areas for Hawaiian monk seals. The human occupation of this island presents a need for special management and protections; thus, Sand Island meets the criteria for critical habitat. In considering Sand Island for the proposed designation, we recognized that the Midway Harbor located on Sand Island did not incorporate the essential features identified and that this area should not be included in the designation. We determined that for all specific areas in the NWHI, unless otherwise noted, all beach areas, sand spits and islets, including all beach crest vegetation to its deepest extent inland, lagoon waters, inner reef waters and ocean waters are included out to the seaward boundary of the 500-m depth contour.

Specific Area 1: Kure Atoll's center point is defined at 28°25'11.00" N/178°19'45.00" W. Located at the northwestern end of the archipelago, the

coral atoll is comprised of the major island, Green Island, and a few small sand spits. Kure is one of the 6 major breeding subpopulations described for the NWHI, and population declines were described for this area in 2009 (Center, 2009). All six essential features are present within the specific area.

Specific Area 2: Midway Islands' center point is defined at 28°14'12.00" N/177°22'06.00" W. Located at approximately 2,100 km northwest of Honolulu, the grouping consists of three islands, Sand, Eastern, and Spit, located within the circular-shaped atoll. Today Sand Island supports a full time refuge staff, including residents that support and maintain a runway, and a visitor program. Considered one of the 6 major breeding subpopulations, the monk seal population in the Midway Islands was reported as declining in 2009 (Center, 2009). The specific area incorporates 88 mi² (227.9 km²) of terrestrial and marine habitat, and all six essential features are present within it. Midway Harbor does not meet the definition of critical habitat. The boundaries of Midway Harbor were delineated to incorporate the inner harbor and hardened shorelines of the harbor. The polygon that bounds Midway Harbor includes the area bounded by the point at the seaward edge of the northern breakwater at the harbor entrance (28°12'44.31" N/177°21'35.64" W) then north along the breakwater to where the breakwater meets the coastline at 28°12'54.06" N/177°21'38.69" W then west to 28°12'56.63" N/177°22'18.42" W then south to 28°12'30.88" N/177°22'23.89" W then east to 28°12'32.68" N/177°21'44.63" W then north to the seaward edge of the southern breakwater at the harbor entrance (28°12'39.99" N/177°21'38.04" W) and a line back to meet the seaward edge of the northern breakwater at Midway Harbor's entrance.

Specific Area 3: Pearl and Hermes Reef center point is defined at 27°50'37.000" N/175°50'32.00" W. The first land area southeast of Midway, this coral atoll consists of numerous islets, seven of which are above sea level. The total land area in the Atoll is approximately 80 acres (32.4 hectares), but the surrounding reef area is extensive. The specific area was estimated to be 242 mi² (626.8 km²). One of the 6 major breeding subpopulations, Pearl and Hermes Reef's monk seal population has been declining in recent years (Center, 2009); however, all six essential features are present within the specific area.

Specific Area 4: Lisianski Island center point is defined at 26°03'49.00" N/173°58'00.00" W. The single island is

Continue to page 32039

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draft Economic Analysis Report (ECONorthwest 2010) provide a more detailed description of the potential effects of each category of activities and threats on the essential features. For example, activities such as in-water and coastal construction, dredging and disposal of dredged materials, energy projects, aquaculture projects, and military activities may have adverse

impacts on preferred pupping and nursing areas, marine areas associated with pupping and nursing areas, marine foraging areas, or significant haul-out areas by decreasing the amount of available space in these areas. Increased activities such as those mentioned, located in remote sites, also have the potential to impact the level of anthropogenic disturbance such that

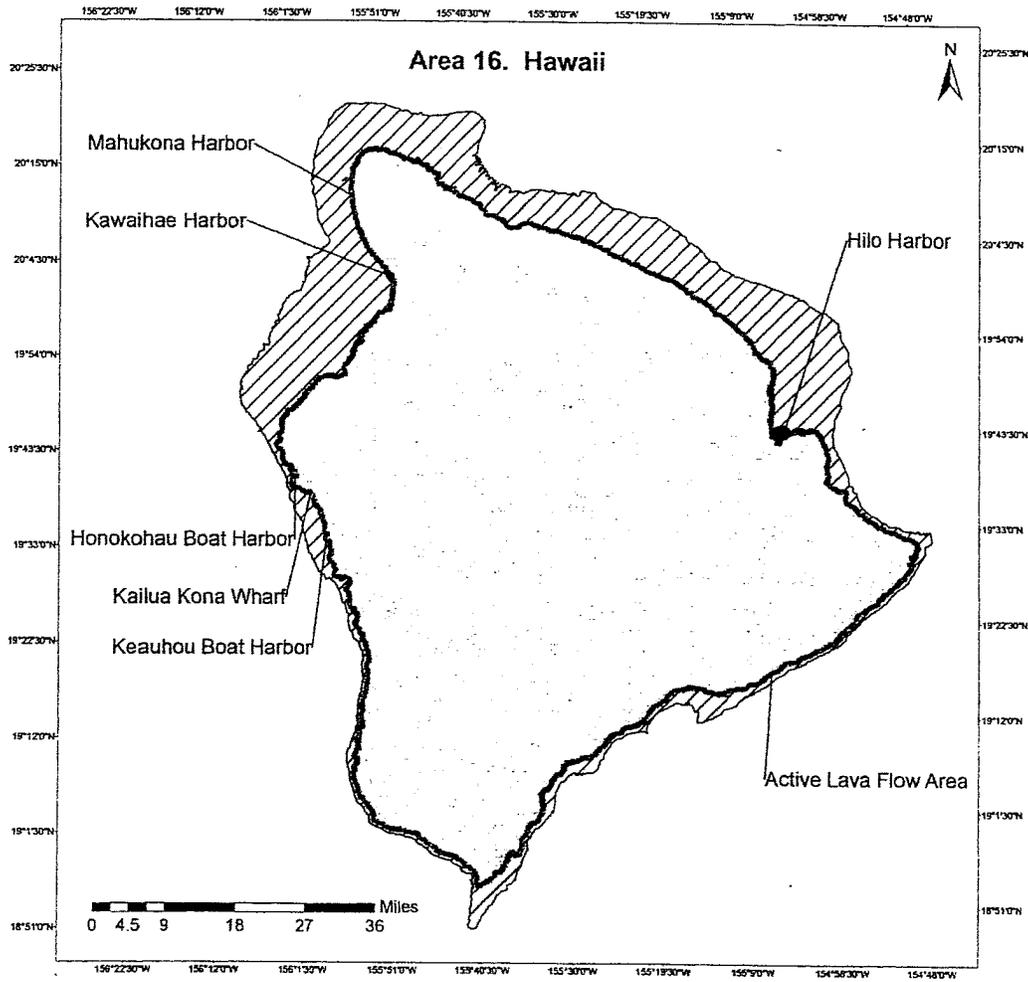
Hawaiian monk seals abandon preferred pupping and nursing areas and significant haul-out sites. In-water and coastal construction, dredging and disposal of dredged materials, energy projects, aquaculture projects, and activities that generate water pollution may result in impacts to water quality such that the quantity and/or quality of available prey species are impacted.

TABLE 1—INFORMATION ON ACTIVITIES THAT MAY AFFECT HAWAIIAN MONK SEAL HABITAT ESSENTIAL FEATURES, INCLUDING THE SPECIFIC AREAS IN WHICH THE ACTIVITY IS LOCATED, THE ESSENTIAL FEATURES THAT ACTIVITY COULD AFFECT AND THE NATURE OF THAT THREAT, AND THE POSSIBLE MODIFICATIONS TO THE ACTIVITY DUE TO THE HAWAIIAN MONK SEAL CRITICAL HABITAT REVISION

Activity	Specific areas	Essential features and nature of the threat	Possible modifications to the activity
In water and coastal construction.	2, 8, 13, 14, 15, 16	<p><i>Preferred pupping and nursing areas, marine areas adjacent to preferred pupping and nursing areas, significant haul-out areas, and marine foraging areas</i>—development on or near these areas may reduce the amount or quality of the available habitat.</p> <p><i>Adequate quantity or quality of prey</i>—construction may impact water quality by release of contaminants or increased sedimentation, resulting in impacts to the quantity and quality of prey species.</p> <p><i>Low levels of anthropogenic disturbance</i>—development in remote or less disturbed areas may increase the potential for disturbance, making monk seals avoid or abandon preferred areas.</p>	<p>Restriction on the spatial and temporal extent of the project. Limitations on the size, and numbers of heavy equipment brought into the area. Increased monitoring efforts regarding seal behavior and response to disturbance. Increased education efforts for the public. Increased education efforts for project personnel.</p> <p>Monitoring efforts to identify impacts to benthic community or prey species. Limitations on access to and from the area. Monitoring efforts regarding seal foraging behavior.</p>
Dredging	2, 13, 14, 15, 16	<p><i>Preferred pupping and nursing areas, marine areas adjacent to preferred pupping and nursing areas, significant haul-out areas, and marine foraging areas</i>—dredging or disposing in or near these areas may reduce the amount or quality of the available habitat.</p> <p><i>Adequate quantity or quality of prey</i>—dredging or disposing may impact water quality by release of contaminants or increased sedimentation, resulting in impacts to the quantity and quality of prey species.</p> <p><i>Low levels of anthropogenic disturbance</i>—dredging or disposal in remote or less disturbed areas may increase the potential for disturbance, making monk seals avoid or abandon preferred areas.</p>	<p>Restriction on the spatial and temporal extent of the project. Limitations on the size, and numbers of heavy equipment brought into the area. Increased monitoring efforts regarding seal behavior and response to disturbance. Increased education efforts for project personnel. Monitoring efforts to identify impacts to benthic community or prey species. Limitations on access to and from the area.</p>
Energy Development (renewable energy projects).	13, 14, 15, 16	<p><i>Preferred pupping and nursing areas, marine areas adjacent to preferred pupping and nursing areas, significant haul-out areas, and marine foraging areas</i>—development on or near these areas may reduce the amount or quality of the available habitat.</p> <p><i>Adequate quantity or quality of prey</i>—construction may impact water quality by release of contaminants or increased sedimentation, resulting in impacts to the quantity and quality of prey species.</p> <p><i>Low levels of anthropogenic disturbance</i>—development in remote or less disturbed areas may increase the potential for disturbance, making monk seals avoid or abandon preferred areas.</p>	<p>Restriction on the spatial and temporal extent of the project. Limitations on the size, and numbers of heavy equipment brought into the area. Increased monitoring efforts regarding seal behavior and response to disturbance. Increased education efforts for the public. Increased education efforts for project personnel. Monitoring efforts to identify impacts to benthic community or prey species. Limitations on access to and from the area. Monitoring efforts regarding seal foraging behavior.</p>
Activities that generate water pollution.	13, 14, 15, 16	<p><i>Adequate quantity or quality of prey</i>—release of contaminants, pollutants, or increased sediment may result in degradation of water quality, causing declines in prey quantity and/or quality.</p>	<p>Restriction on the location or amount of discharge. Increased monitoring efforts to identify impacts to benthic community or prey species. Where Federal permits are necessary, ensure that discharge meets standards other than existing Federal standards and regulations.</p>

Continue to page
32063

Proposed Hawaiian Monk Seal Critical Habitat
Specific Area 16



Legend

-  Proposed Terrestrial Critical Habitat
-  Proposed Marine Critical Habitat (500 m depth contour)
-  Areas Not Included in Proposed Critical Habitat

Exhibit 7.

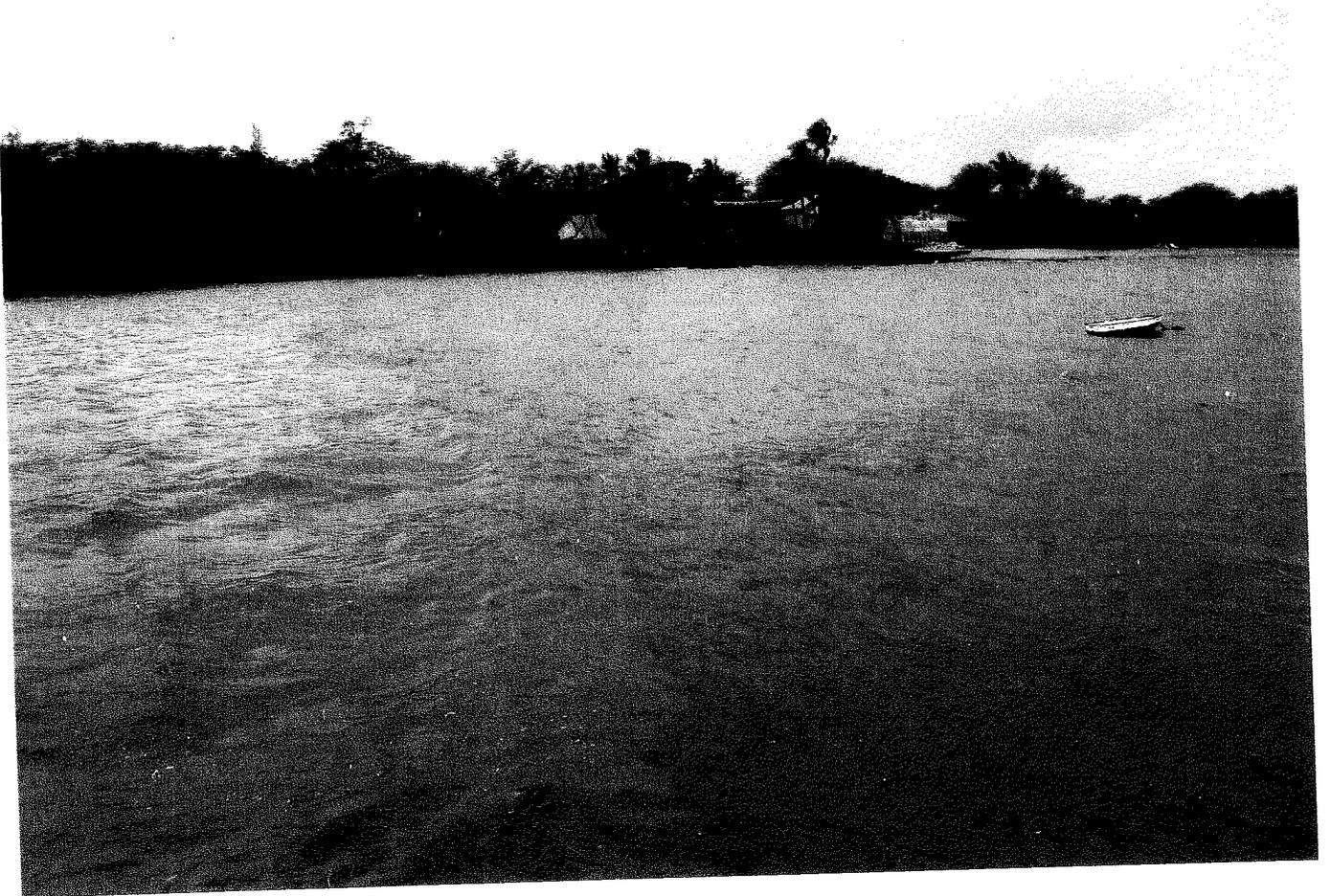


Exhibit 7

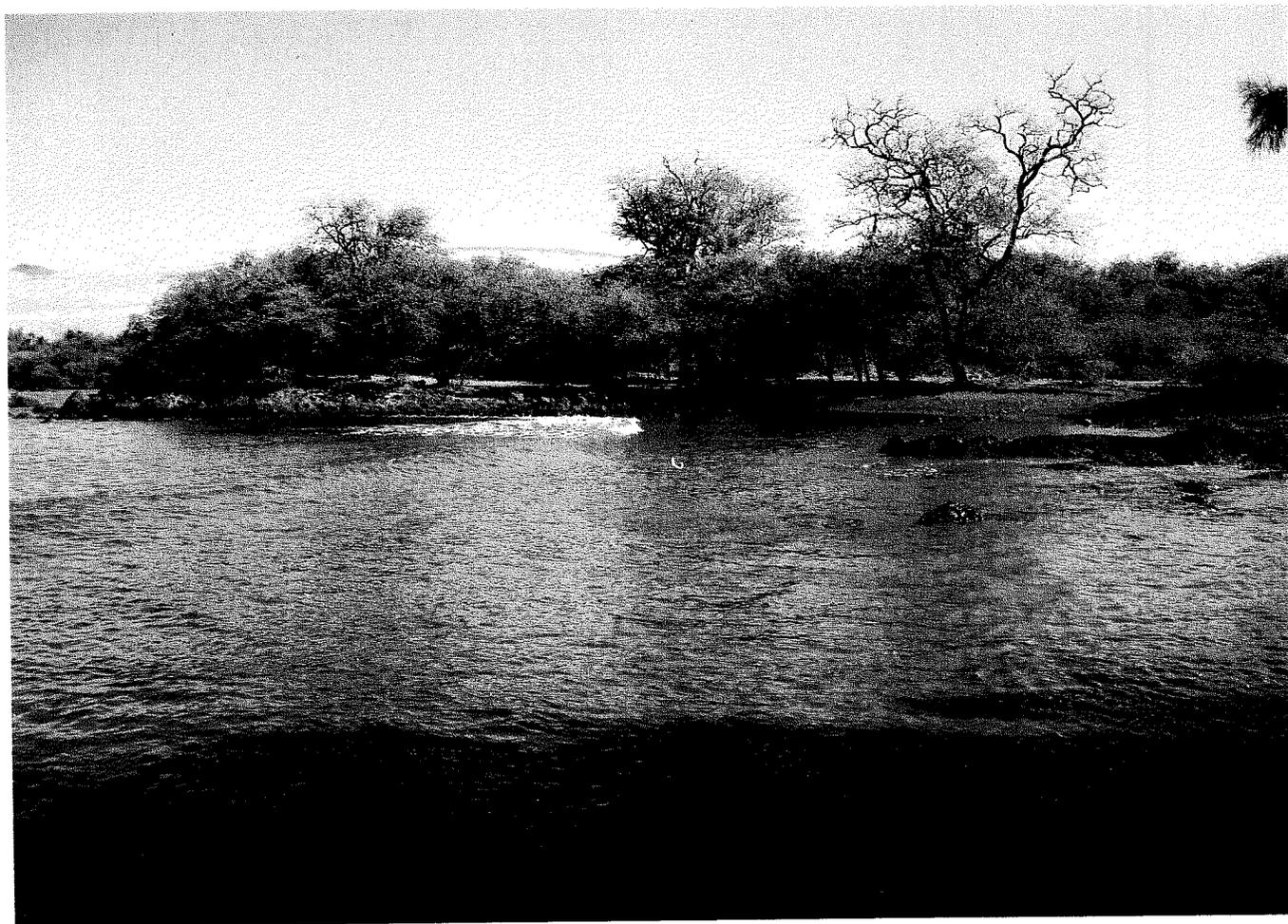


Exhibit 7



Exhibit 7

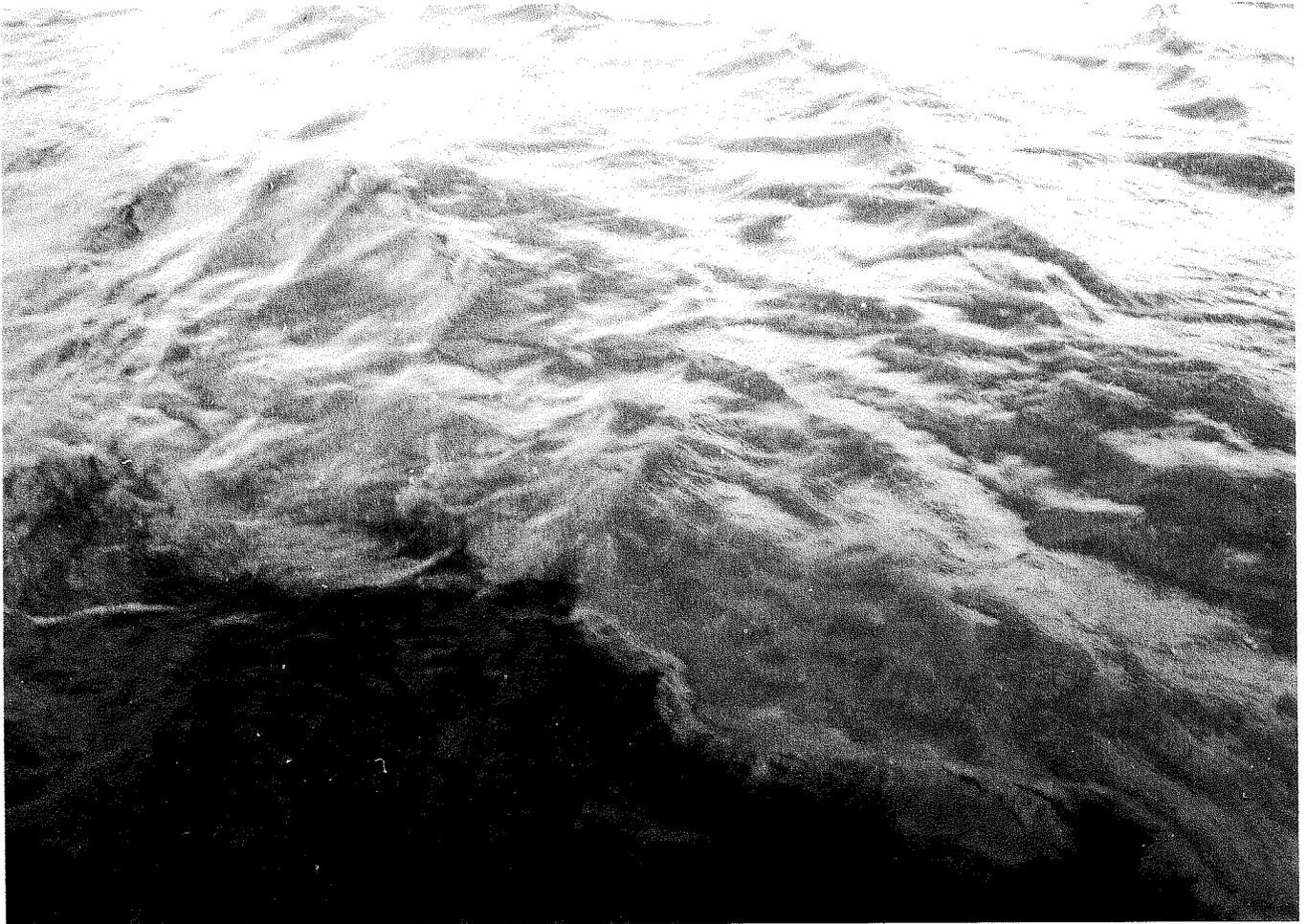




EXHIBIT 8

8-1



8-2



Ex 83



84



8-5



8-6



8-7



 Existing easement area

 Proposed addition to easement

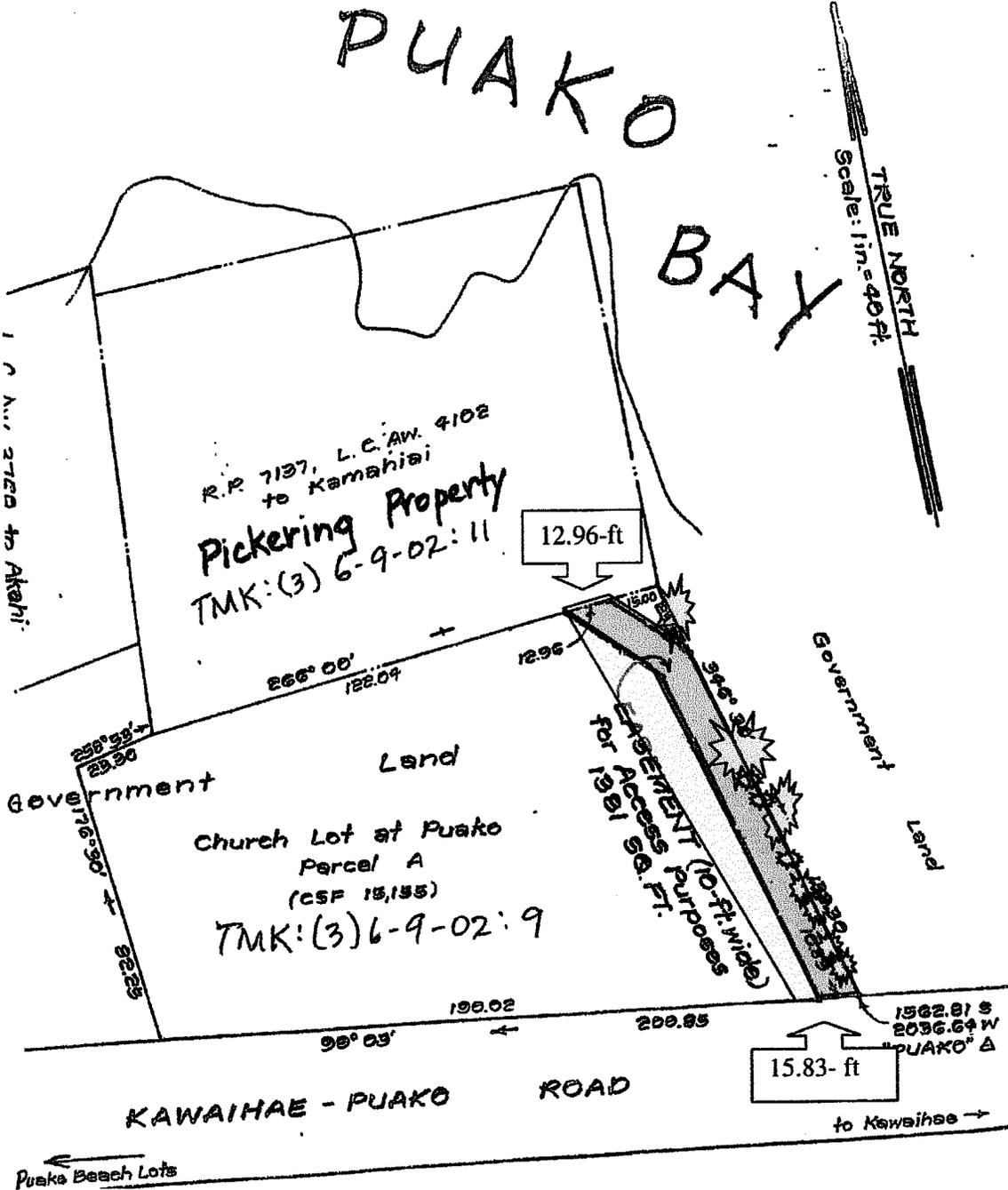


EXHIBIT B

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Land Division
Honolulu, Hawaii 96813

November 19, 2009

Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

Ref. No.: GLS-4858

HAWAII

Amendment to Grant of Easement No. S-4858 to Joseph F. Pickering and Helen D. Pickering for Vehicular and Pedestrian Ingress and Egress Purposes, Puako, Lalamilo, South Kohala, Hawaii, Tax Map Key: 3rd/ 6-9-02: 9.

APPLICANT:

Joseph F. Pickering and Helen D. Pickering, Kamuela, HI 96743.

LEGAL REFERENCE:

Section 171-13, Hawaii Revised Statutes, as amended.

LOCATION:

Government Lands of Puako at Lalamilo, South Kohala, Hawaii, Tax Map Key: 3rd/ 6-9-02: 9, as shown on the attached map labeled **Exhibit A**.

AREA:

To be determined by independent survey, subject to review and verification by the Department of Accounting and General Services, Survey Division.

Existing easement is approximately 1,381 square feet.

ZONING:

State Land Use District: Urban
County of Hawaii CZO: Open; also within SMA

TRUST LAND STATUS:

Section 5(b) lands of the Hawaii Admission Act

DHHL 30% entitlement lands pursuant to the Hawaii State Constitution:

YES _____ NO X

CURRENT USE STATUS:

Encumbered by Revocable Permit No. S-4350 to the Hoku Loa Church Foundation, and partially encumbered by existing GL S-4858, which is a term easement for vehicular and pedestrian ingress and egress.

CHARACTER OF USE:

Right, privilege and authority to construct, use, maintain and repair a right-of-way over, under and across State-owned land for vehicular and pedestrian ingress and egress purposes.

CHAPTER 343 - ENVIRONMENTAL ASSESSMENT:

In accordance with the "Division of Land Management's Environmental Impact Statement Exemption List", approved by the Environmental Council and dated April 28, 1986, the subject request is exempt from the preparation of an environmental assessment pursuant to Exemption Class No.1, "Operations, repairs or maintenance of existing structures, facilities, equipment or topographical features, involving negligible or no expansion or change of use beyond that previously existing."

DCCA VERIFICATION:

Not applicable. The Applicants are natural persons and not required to register with the Department of Commerce and Consumer Affairs.

APPLICANT REQUIREMENTS:

Applicant shall be required to:

- 1) Provide survey map and descriptions according to State DAGS standards and at Applicant's own cost;
- 2) Pay for an appraisal to determine consideration required for increased area to existing easement.

BACKGROUND:

This submittal relates to an access easement over State land at Puako, Lalamilo, South Kohala, which is the site of the historic Hokuloa Church and designated as TMK: 3rd/ 6-9-02: 9 (the "church lot"). The church lot is partially encumbered by Revocable Permit No. S-4350 to the Hoku Loa Church Foundation (HLCF). On the makai side of the

church lot is a landlocked shorefront parcel designated as TMK: 3rd/ 6-9-02: 11 (the "Pickering lot"), presently owned by the Joseph F. Pickering 1994 Qualified Personal Residence Trust, dated April 7, 1994 and the Helen D. Pickering 1994 Qualified Personal Residence Trust, dated April 7, 1994. **(Exhibit A)**

It appears that historically, access to the Pickering lot was over the church lot. In the 1960s, when HLCF sought approval of the Land Board to restore the church, an informal agreement was reached between the State and the then-owner of the Pickering lot, Richard Smart, that access to the Pickering lot would be relocated outside of the church lot. The new access would traverse the State lands designated as TMK: 3rd/ 6-9-02: 11 located on the west side of the church lot.

It is not clear whether the informal agreement with Richard Smart was ever put into effect. Mr. Smart's successors-in-interest subsequently sought Board approval to access the Pickering lot over the church lot. At its meeting of November 17, 1972, Item F-1-b, the Board approved the issuance of Revocable Permit No. S-4896 to Signal Properties, Inc. for roadway easement for ingress and egress purposes over a 10-foot wide corridor along the eastern edge of the church lot. At its meeting of October 24, 1975, Item F-4, the Land Board approved the cancellation of Revocable Permit No. S-4896 and issued a new revocable permit (RPS-5186) to the successors-in-interest to the property, Elwin Hussey and Shirley Hussey, for roadway easement for ingress and egress purposes over the same 10-foot wide corridor.

The Pickerings acquired title to the Pickering lot in August 1978. In 1980, the Pickerings (in their individual capacities and not as trustees) applied for an access easement to their property from Puako Beach Drive across the church lot. At its meeting of April 10, 1981, Item F-2, the Board approved a 65-year non-exclusive easement for vehicular and pedestrian ingress and egress. The easement corridor ultimately selected runs along the eastern boundary of the church lot but takes a jog to the west near the boundary with the Pickering lot. See Exhibit B attached.

REMARKS:

In its effort to list the church site on the National Historical Registry, the successor-in-interest to HLCF, the Hawaii Conference Foundation (HCF), had the church lot surveyed as a requirement of the Registry application. Upon completion of the survey report, it was discovered that the existing traveled way utilized by the Pickerings was not consistent with the easement alignment approved under Grant of Easement No. S-4858. As a result, the Pickerings seek to amend the easement by changing the alignment so it would overlap and/or include the existing traveled way. The Pickerings requested that the easement be at least ten feet wide and preferably 13 feet wide to accommodate emergency and service vehicles.

On March 19, 2009, staff conducted a site inspection of the property. Staff noted that large kiawe trees are growing in a portion of the legal easement corridor, approximately

mid-way between the church lot's northeast and southeast corners. Additionally, the eastern edge of the church lot, which is also the eastern boundary of the legal easement, is located within a few feet of the high water line. The Pickerings state they are worried that the removal of the kiawe trees would destabilize the shoreline in this area. The Pickerings point out that the shoreline is closer to the traveled way than it was in the early 1980s, and believe that it is now important to preserve the tree barrier between the church lot and the ocean.

Staff consulted with the HCF regarding the easement location. HCF recognizes the difficulty of developing the Pickerings' legal easement corridor as granted for travel. Accordingly, HCF proposed an expanded easement route as shown in yellow and blue on **Exhibit B**. In HCF's proposal, the western edge of the easement is moved five feet west (toward the church) at Puako Beach Drive, and then a line is drawn from the point where the new western edge of the easement intersects the road to the existing western edge of the easement where it meets the Pickering lot. This expanded corridor partially overlaps the existing traveled way.

Staff forwarded HCF's proposal to Margaret Wille, the attorney for the Pickerings, who acknowledged acceptance of the proposed realignment for the additional area to the existing easement.

As presently worded, the easement instrument does not allow for any assignment of the rights thereunder without prior Board consent. Staff is recommending an amendment to the easement to allow it to run with the land under the standard conditions approved by the Department of the Attorney General. Those conditions include the requirement that the assignor notify the assignee of the insurance requirement in writing, separate and apart from this easement document. With the "run with the land" provision incorporated into the easement instrument, the Pickerings, as individuals, will be able to assign the easement rights to the lawful owners of the Pickering lot, who are two trusts the Pickerings have created.

Applicant has not had a lease, permit, easement or other disposition of State lands terminated within the last five years due to non-compliance with such terms and conditions.

RECOMMENDATION: That the Board:

- A. Authorize the amendment of Grant of Easement No. S-4858, under the terms and conditions cited above, which are by this reference incorporated herein and further subject to the following:
 1. The standard terms and conditions of the most current amendment document form, as may be amended from time to time;
 2. Approve a realignment of the easement's west boundary as proposed and

agreed to by both HCF and the Pickerings, as shown in **Exhibit B**;

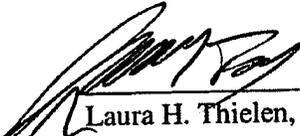
3. The easement shall run with the land and shall inure to the benefit of the real property described as Tax Map Key: 3rd/ 6-9-03: 11, provided however: (1) it is specifically understood and agreed that the easement shall immediately cease to run with the land upon the expiration or other termination or abandonment of the easement; and (2) if and when the easement is sold, assigned, conveyed, or otherwise transferred, the Grantee shall notify the Grantee's successors or assigns of the insurance requirement in writing, separate and apart from this easement document;
4. Grantee shall be responsible for all expenses and/or fees (survey, appraisal, document, consideration, etc.) relating to the amendment of Grant of Easement No. S-4858;
5. Grantee shall be reminded that it is solely responsible for the maintenance and repair of the easement area, which includes trimming of the kiawe trees growing within its approved easement area;
6. Review and approval by the Department of the Attorney General; and
7. Such other terms and conditions as may be prescribed by the Chairperson to best serve the interests of the State.

Respectfully Submitted,



Wesley T. Matsunaga
Land Agent


APPROVED FOR SUBMITTAL:



Laura H. Thielen, Chairperson

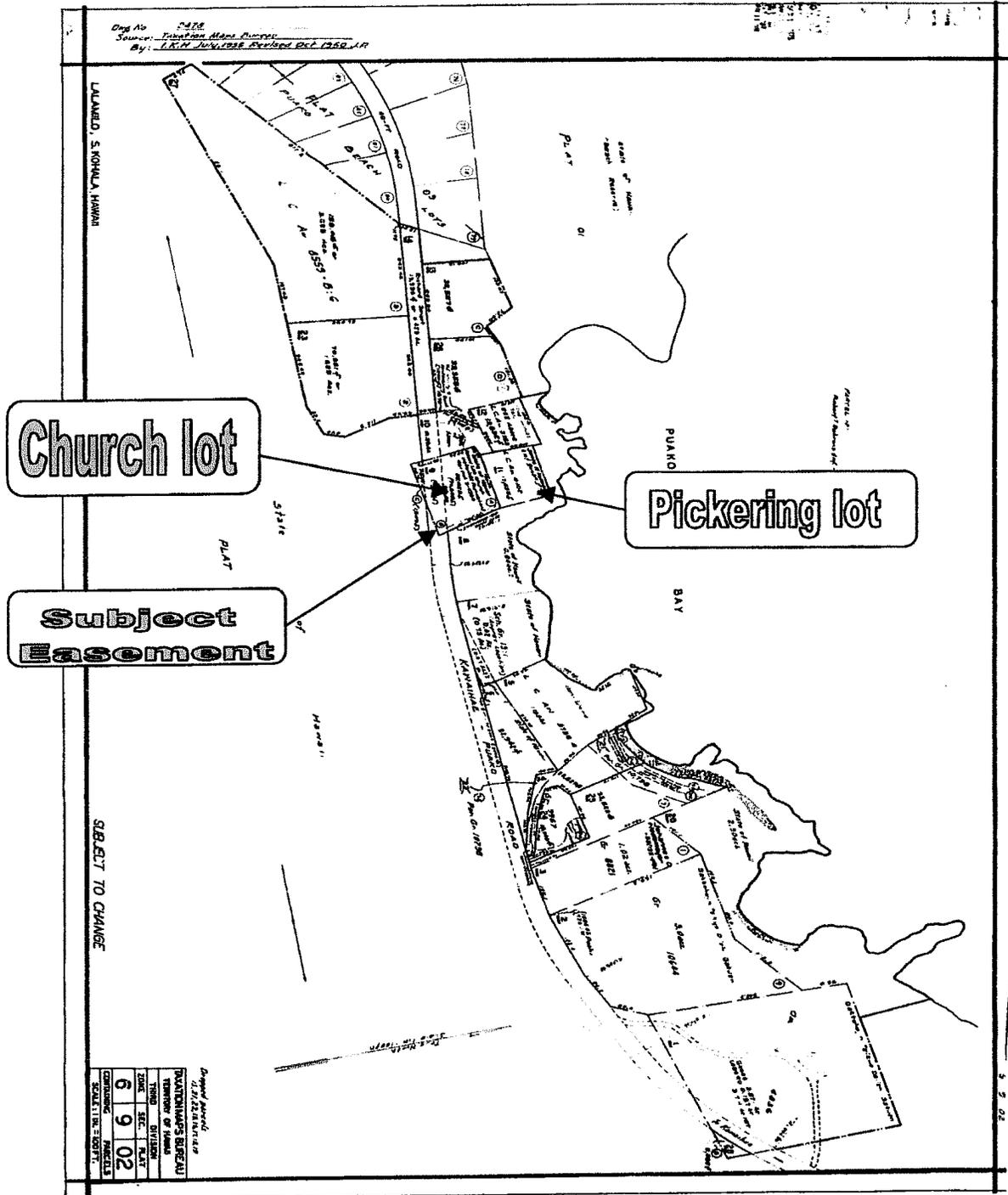



EXHIBIT A

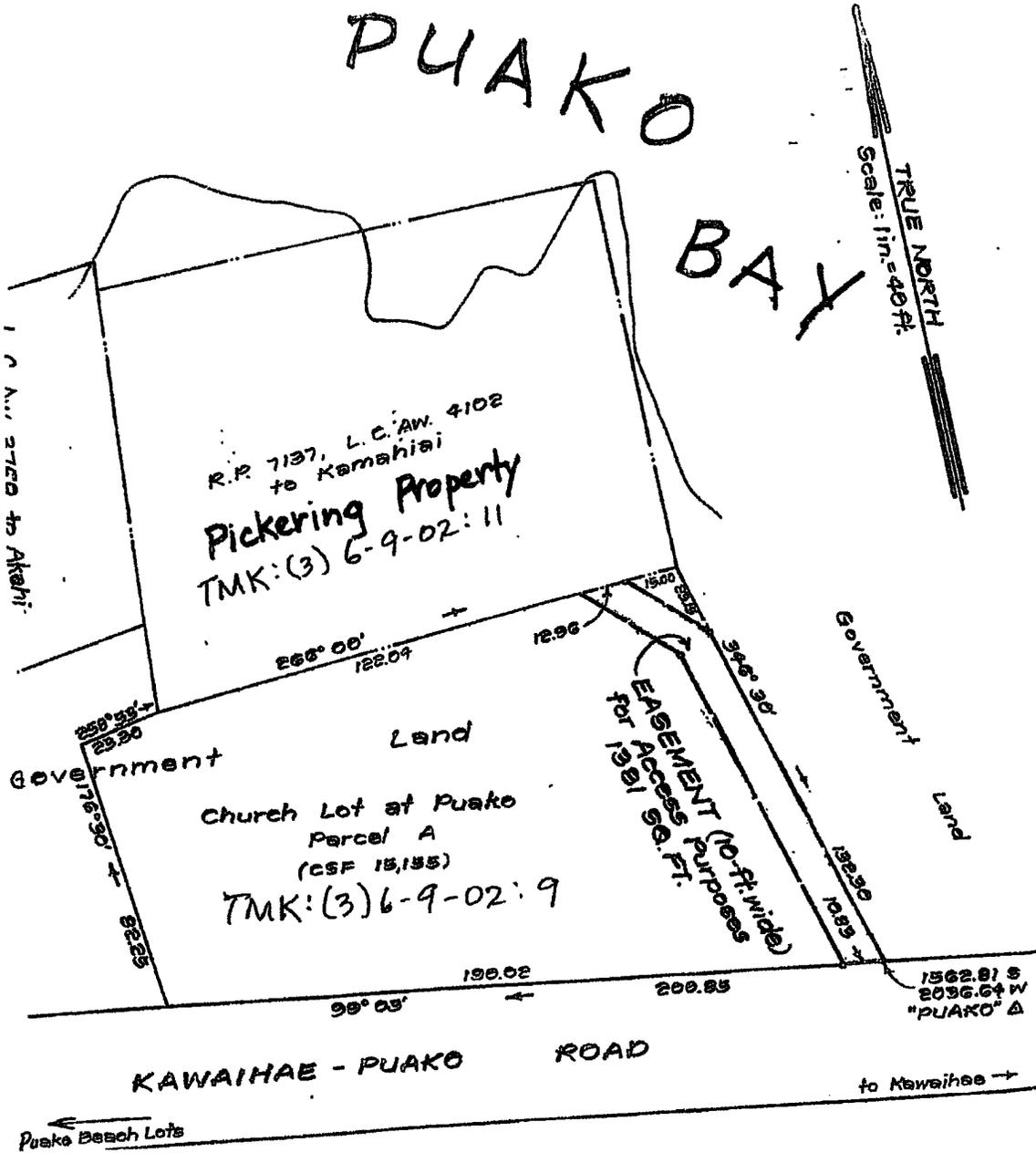
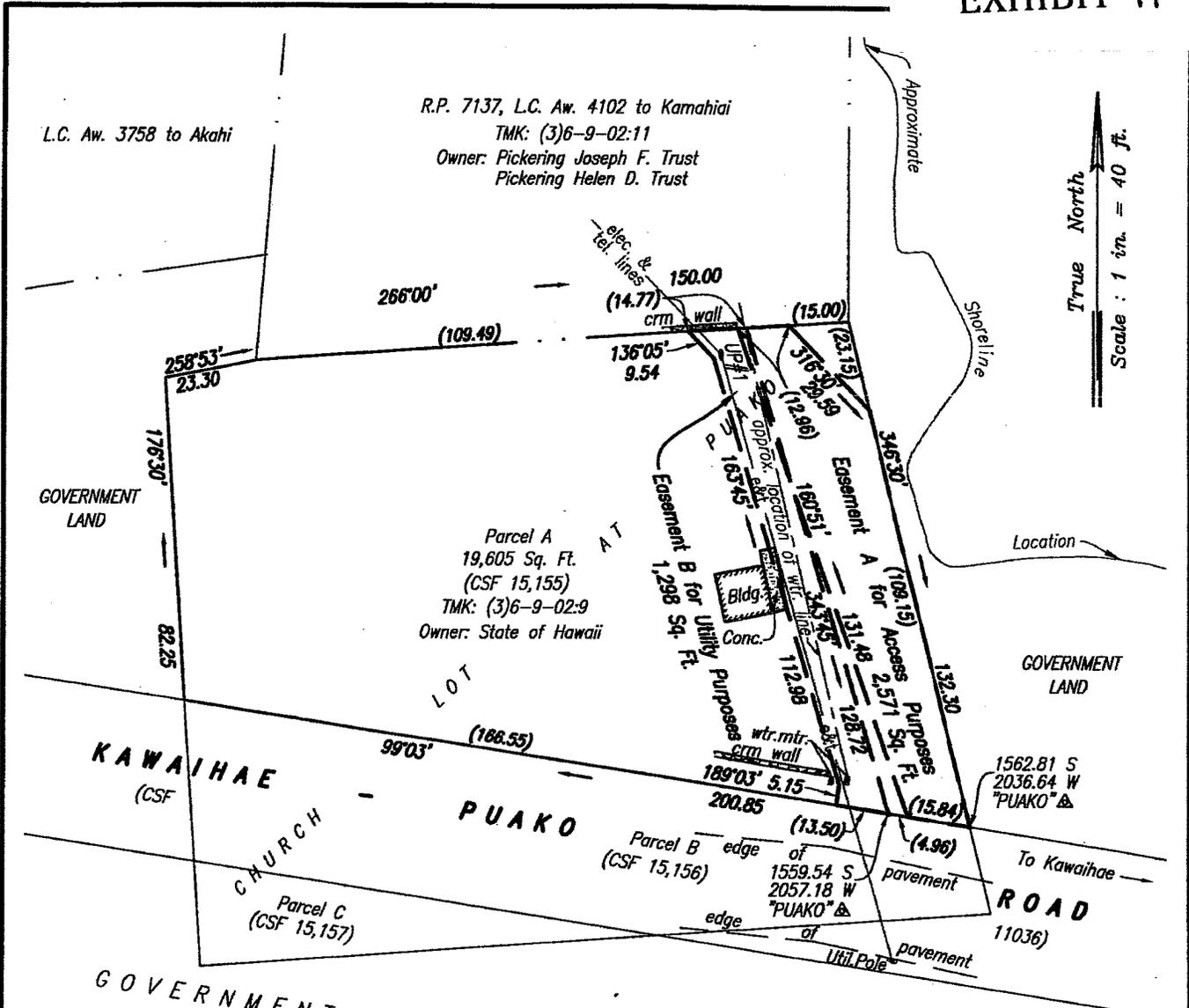


EXHIBIT A



L.C. Aw. 3758 to Akahi

R.P. 7137, L.C. Aw. 4102 to Kamahai
 TMK: (3)6-9-02:11
 Owner: Pickering Joseph F. Trust
 Pickering Helen D. Trust

GOVERNMENT LAND

Parcel A
 19,605 Sq. Ft.
 (CSF 15,155)
 TMK: (3)6-9-02:9
 Owner: State of Hawaii

KAWAIHAE
 (CSF 15,157)

CHURCH - PUAKO

Parcel C
 (CSF 15,157)

Parcel B
 (CSF 15,156)

GOVERNMENT LAND

1562.81 S
 2036.64 W
 "PUAKO" Δ

ROAD
 11036

GOVERNMENT LAND

LAND OF LALAMILO
 (CSF 10,072)



Plan Showing

**Designation of Easement A for Access Purposes
 and Easement B for Utility Purposes
 Affecting Parcel A (C.S.F. No. 15,155)
 at Puako, Lalamilo, Waimea
 South Kohala, Island of Hawaii, Hawaii**

T.M.K. : (3)6-9-02 : parcel 9

Client: Joseph Pickering

This work was prepared by me or under my direct supervision.
 Engineers Surveyors Hawaii, Inc.

Andy R. Harada
 Andy R. Harada
 Licensed Professional Land Surveyor
 Certificate Number 5963

Honolulu, Hawaii
 60-08

ENGINEERS SURVEYORS HAWAII, INC.
 CIVIL ENGINEERS ~ LAND SURVEYORS ~ CONSTRUCTION MANAGERS

1320 N. School Street
 Updated: June 15, 2011
 June 22, 2010
 March 17, 2010

geometrician

ASSOCIATES, LLC
integrating geographic science and planning

phone: (808) 969-7090 PO Box 396 Hilo Hawaii 96721 rterry@hawaii.rr.com

August 5, 2011

Margaret Wille, Attorney at Law
65-1316 Lihipali Rd.
Kamuela HI 96743

Dear Ms. Wille:

Subject: Comment to Draft Environmental Assessment for Lease of State Land, Hokuloa United Church of Christ, TMK (3rd) 6-9-002: 007, 008, 009 & 010, Puakō, Island of Hawai'i

Thank you for your comment letter dated June 21, 2011, on the Draft EA. In answer to your specific comments:

1: The action will have a direct impact on the Pickering's property and access easement. *The project does not touch any portion of the Pickering's Parcel 11, although it will be visible from Parcel 11. The Pickering's access easement is clearly set forth on the Landscape Plan and will remain accessible to the Pickering's.*

2: An EIS is required unless certain changes are made to the Plan and the EA. To paraphrase the changes you demand: the shoreline must be accurately mapped; there must be specific mitigation measures to prevent damage to the marine and shoreline ecosystem; the project must be downscaled and the trees to be removed specified; a more specific description of landscaping particulars and methods must be provided; the EIS should clarify that shoreline access trail will be located sufficiently far from shoreline and the project should be modified to provide stub trails to get to actual shoreline; tree removal should be limited near and prevent tree removal on Pickering's easement; and parking should be provided parking on the road edge of Lots 7 and 8 between the proposed wall and the road pavement in a way that allows safe pedestrian passage. *Concerning your specific recommendations, we believe that the general landscape plan sufficiently illustrates the action and that a more detailed plan including the locations of every individual of the invasive kiawe tree to be trimmed or removed or planted would be burdensome and should not be required; downscaling of the project would not meet the Church's stated goals; the trail will be placed in very close consultation with Ala Kahakai at an appropriate location within the shoreline setback with no formal trails to the shoreline, which will be accessible because most kiawe trees that currently block access and use will have been removed and replaced (where not in the water) with native vegetation; the Church will provide an*

unpaved area between the low wall and the naupaka hedge that can be used by walkers, if they desire.

According to attorneys for the Church, the Pickerings' easement, both in its existing form and its proposed amended location, is not for landscaping purposes nor does it require the Pickerings' consent for the removal of any vegetation within the easement area. The original easement at paragraph 11 stated that "the Grantees shall be solely responsible for the maintenance and repair of the easement area at no cost to the State or County of Hawaii." As noted in the comments, the State reminded the Pickerings in 2009 that it is their responsibility to trim the trees within the easement area. This reminder is misconstrued in your comments as a grant of exclusive control over the trees rather than a reminder of the existing allocation of responsibility as between the Pickerings and the State. No further legal rights regarding the trees have been subsequently granted to the Pickerings.

An EIS is required only when there are significant adverse impacts. Our analysis indicates that none of the proposed actions will lead to a significant adverse impact. Based on the letters you have provided, the Pickering's concerns relate to: 1) neighbor issues relative to easements and access, which are soluble, currently in process, and unrelated to the proposed action; 2) views of the shoreline and kiawe thicket from the Pickering property, which are not significant and are in any case balanced by the ability of the public to enjoy the shoreline and an extension of the Ala Kahakai Trail; and 3) "impacts" related to the deletion of dubious benefits of kiawe on the native marine and terrestrial ecosystem, which are not borne out by science and contemporary conservation management in Hawai'i. In sum, no significant adverse impacts have been identified and an EIS is therefore not necessary.

3: A more "environmentally friendly" alternative is required. Based on the reference to earlier comments, this would presumably consist of a) retention of all existing trees and significant vegetation; b) no activities that would affect the Pickering's easements; c) limited shoreline paths; and d) no herbicides or biocontrols, no activities involving erosion or sedimentation, and no hardscaping. *Our response to Comment 2 dealt with sub-items a-c. We would note that the Church does not view this alternative as more environmentally friendly, as it favors invasive kiawe over native and Polynesian plants that are more beneficial for the natural and cultural environment, and restricts access to the shoreline. Concerning sub-item d: no herbicides, biocontrols, hardscaping, or activities involving erosion and sedimentation have ever been part of the plan.*

4. In addition to an EIS, a Shoreline Setback Variance, a Shoreline Management Area Permit [sic], a Subdivision plan approval, and adherence to state DOH water quality standards and anti-degradation policies are required. *The Church will apply for all necessary permits and approvals.*

5. The area shown on the Plan is inaccurate and represents a much larger area than actually exists and the shoreline is inaccurately represented, particularly in front of the Pickerings, as evidenced by a survey attached to the comments as Exhibit 1. *The background for the Plan is a recent airphoto. We recognize that the actual shoreline is difficult to discern under the kiawe trees but the Plan is conceptual and meant to show general uses. Our comparison of the Plan and the survey you provided shows only trivial differences and nothing that would affect use of the properties. More generally, please recognize that the actual location of features such as the trail,*

the naupaka-hedge border, and the open areas are flexible in location depending on the shoreline certification.

6. Because of shoreline retreat, the trail should be considerably set back from shoreline. The trail will presumably require shoreline hardening. *The trail will be placed in an appropriate location within the shoreline setback as determined in consultation with trail agencies and organizations. The proposal specifically states that the trail will have an easement that is flexible and allows it to move as the shoreline advances. No shoreline hardening is proposed or would be allowed.*

7. Removal of kiawe and ironwood would accelerate erosion. *Neither kiawe nor ironwood are particularly useful for preventing shoreline erosion in sandy soils. Herbs, shrubs and vines that densely cover the shoreline are much better.*

8. Specific mitigation measures are required to protect the kiawe trees and the services they provide in terms of shade, fish nursery, water pollution prevention, monk seal habitat (for which critical habitat is now proposed). *Kiawe is at best neutral, and perhaps a threat, to all the values named above. As discussed in materials you provided, monk seals use vegetation for shelter from wind and rain but there is no mention of trees or vegetation overhanging the water being required or even useful. In fact, on page 32032 of your Exhibit 6, item (1) notes "Terrestrial pupping habitat may include various substrates such as sand, shallow tide-pools, coral rubble, or rocky substrates, as long as these substrates provide accessibility for seals hauling out. Characteristics of preferred sites may also incorporate areas with low lying vegetation utilized by the pair for shade or cover." Rocky areas where kiawe is so dense that it forecloses haul-outs are unfavorable habitats.*

9. No other vegetation can successfully replace kiawe in this dry area. *On the contrary, many native herbs, shrubs and trees are very well adapted to dry coastal environments, among them milo, pohuehue, 'uhaloa, and pau-O-Hi 'iaka.*

10. The existing area has a wilderness character. *As an invasive tree that owes its existence in the area to cattle and which essentially precludes native vegetation, kiawe is not supportive of wilderness character.*

11. The kiawe forest has value of in mitigating floods and sedimentation. *We do not concur with your assessment of the benefits of kiawe in ameliorating floods and protecting water quality. Native groundcovers and shrubs would be far more effective at detaining silt from slow-moving floodwaters, should these ever affect the property. It is noteworthy that the CDP does not specify that kiawe trees are essential to avoid erosion and sedimentation.*

12. Public parking. *The Site Plan has been modified to provide an unpaved area between the low wall and the naupaka hedge that can be used by walkers, if they desire. Concerning DPW's letter, we apologize for its omission in the DEA, but it has been superseded by a comment letter on the Draft EA, which we have attached to our response letter to you, along with our response letter to DPW. As we stated to DPW, given the lack of any type of improvements other than landscaping, the Church does not understand the request to pay for a 5-foot paved shoulder. The need for such a facility is triggered not by any new Church use of the property but by existing*

pedestrian and bicycle use of the road. The proposed action does not expand Church activities in any significant way and basically just relocates them from the Church lawn and gazebo to Parcels 7 and 8. The expense of providing this shoulder would be a burden that is out of proportion to the scale of the proposed landscaping action and with little or no nexus to the nature or scale of the activities. However, as stated above, the Church is willing to provide an unpaved area between the low wall and the naupaka hedge that can be used by walkers, if they desire. Concerning the setback, road widening into this narrow parcel would not seem advisable, practical or necessary in the context of properties in Puakō onto which it would not seem feasible to create a wider road.

No parking is planned on any portion of Parcels 7 and 8, but parking will continue to occur in front of these properties. Based on its experiences in the past, the Church believes this will continue to provide adequate parking. The Church will work with DLNR and DPW to provide a design that preserves existing parking and separates pedestrians from motor vehicle traffic and parking.

13. Any lease should allow for use of all the public lands for reasonable community purposes, which is contradicted by statements at the public meeting that said that only Church functions would be permitted within the fenced area. Public use is required by the public trust section of the Hawai'i State Constitution. *The DLNR will determine the appropriate level of public use required. We expect this lease to be the same type of exclusive use as granted in most standard State leases, with the exception of the public shoreline area and any area open for the Ala Kahakai and mauka-makai trail use. The Church, as an inclusive, community-oriented organization, has a long history of welcoming participation from the public in Church events and sharing Church facilities for community activities. The Final EA has been expanded to include a partial list of such activities.*

14. A portion of the stone wall construction appears to be located on the Pickering property. When the Church built the wall, the stones that comprised the historic wall were pushed onto the Pickering's property without their permission. *The Church does not concur that the wall is located on the Pickering property nor with the version presented in your letter of the events that transpired during and after the building of the wall.*

15. A large kiawe tree on the Pickering's property on the boundary of Lot 10 must not be cut or harmed. *The project will not include any trimming or removal of vegetation located on the Pickering's Parcel 11. Vegetation located on Parcels 7, 8, 9 and 10 may be trimmed or removed as set forth in the Site Plan.*

16. Easement issues. *The Site Plan depicts the current location of the Grant of Easement No. S-4858 in favor of the Pickering's which is recorded in the Bureau of Conveyances of the State of Hawaii as Document No. 94-081025. This non-exclusive easement is for vehicular and pedestrian ingress and egress purposes. As noted in your comments, the easement is in the process of being relocated to accurately reflect the locations of the existing driveway and utilities. The Church has been cooperating with the State in this effort but no new easement document has been completed, much less signed or recorded. Any use of Parcel 10 by the Church will be in compliance with the existing easement or any amended easement that may be recorded by the State.*

We very much appreciate your review of the document. If you have any questions about the EA, please contact me at (808) 969-7090.

Sincerely,

A handwritten signature in black ink that reads "Ron Terry". The signature is written in a cursive style with a large, stylized "R" and "T".

Ron Terry, Principal
Geometrician Associates

Cc: Kevin Moore, Hawai'i DLNR; Pastor John Hoover, Hokuhoa Church

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June 23, 2011

VIA EMAIL

rterry@hawaii.rr.com

AND VIA FIRST CLASS MAIL

Ron Terry, Principal
Geometrician Associates
P. O. Box 396
Hilo, Hawaii 96721

Re: Draft Environmental Assessment
Lease of State Land
Hokuloa United Church of Christ
TMK (3) 6-9-002:007, 008, 009 and 010

Dear Ron:

This letter follows-up on the letter sent to you by email late last night and copied to you by regular mail today. To make things less confusing, I have repeated the body of my previous letter (through Item #2 below) in this letter. You may discard the previous letter if you prefer.

As you know, we represent Dr. Julian "Mac" and Ms. Connie Whitaker (the "**Whitakers**") and the Association of Apartment Owners of The Whale's Tail (collectively with the Whitakers, the "**Association**") in connection with the Whitakers' ownership¹ of Units 1 and 2 of The Whale's Tail, situated at 69-1610 Puako Beach Drive (TMK (3) 6-9-002:012, CPR Nos. 1 and 2) ("**Lot 12**"). Lot 12 is located slightly to the west and north of TMK (3) 6-9-002:009 ("**Lot 9**"). Lot 9 is a State owned property that is subject to Revocable Permit No. S-4350 ("**Permit No. 4350**") in favor of the Hawai'i Conference Foundation ("**HCF**"), and on which is located the historic Hokuloa Church (the "**Church**").

Thank you for providing us with a copy of the Draft Environmental Assessment, Lease of State Land, Hokuloa United Church of Christ dated May 2011 (the "**DEA**") that you prepared in connection with the application by HCF for approval from the Hawai'i Department of Land and Natural Resources ("**DLNR**") for cancellation of Permit No. 4350 and the issuance to HCF of a

¹ The Whale's Tail Condominium is a 2 unit condominium property regime, both units of which are owned by Julian Whitaker and Connie Whitaker, as Co-Trustees of the Whitaker Trust Dated February 2, 1998. The Association of Apartment Owners of The Whale's Tail is the owner in fee simple of the land underlying The Whale's Tail.

Direct Lease for Church and Landscaping Purposes covering Lot 9 plus TMK Nos. (3) 6-9-02:007, 008 and 010.

The Association would like to commend you and HCF on the DEA. The Association believes that the DEA reflects a thoughtful look at the competing needs of the Church, its neighbors and the community and proposes a plan that, subject to only a few comments, the Association supports:

1. Proposed Construction of Rock Wall Encroaches on an Existing Easement in favor of Lot 12.

We note that the Preliminary Landscape Plan (the "**Landscape Plan**") included with the DEA shows a portion of an existing 6 foot high rock wall that angles for a distance of about 28 feet starting at a point that is about 23 feet east of the northwestern most corner of Lot 9 (such point being referred to as "**Point A**") along a line that ends about 28 feet south of the northwestern most corner of Lot 9. The Landscape Plan shows a small (approx 2 foot) section of the angled rock wall being removed and a new rock wall (the "**Corner Wall**") that starts at Point A and continuing instead along the makai boundary of Lot 9 to the northwestern most corner of Lot 9, then continuing in a southerly direction along the western boundary of Lot 9 for a distance of about 28 feet, before continuing into in a westerly direction into Lot 10. The Landscape Plan identifies the triangular area bounded by the new Corner Wall and the angled rock wall as a "Storage Area (Approx. 195 S.F. Total)" (the "**Storage Area**").

We respectfully note that the area in which the Corner Wall is being built and in which the Storage Area is located is within an existing "Grant of Non-Exclusive Easement" dated September 5, 2003 (the "**Access Easement**") in favor of TMK 012. A copy of the Access Easement is attached to this letter. We also mentioned this encroachment onto the Access Easement to you in an email dated May 27, 2011.

The Access Easement grants an appurtenant, perpetual, non-exclusive easement for the benefit of TMK 012 for access and utility purposes over the easement area described in the Access Easement, including the area now shown as the "Storage Area" shown on the Landscape Plan. Putting up the Corner Wall and designating this portion of the Easement Area as a "Storage Area" clearly prohibits any access to or use of this portion of the Easement Area by TMK 012. We believe that the final environmental assessment (the "**Final EA**") should be corrected to remove any encroachment on the Access Easement.

2. 6 Foot High Rock Wall.

HCF is proposing to construct a lava rock wall in Lot 10 in approximately the location shown in the Landscape Plan. The portion of the rock wall that generally parallels the Access Easement that serves Lot 12 will be 6 feet high (see notation on the Landscape

Plan: "6'- 0" High Rock Wall to Match Existing, Typical (Approx. 150 L.F. Total)", while the wall that borders Puako Beach Drive will be intermittent and 20 inches high.

The 6 foot high rock wall serves to delineate the Church property and its uses of Lot 10 from the access and utility uses of Lot 10 by the Whitakers. This is an important feature for the purpose of preserving the separation of the respective uses of HCF's portion of Lot 10 from the Association's use of their portion of Lot 10, and we appreciate HCF for having included it in the DEA. We request that it be continued in the final environmental assessment in approximately the same configuration and location as is shown in the DEA.

3. Affirmative Statement Regarding Construction of 6 Foot High Rock Wall.

We note that the Church stated on Page 8 of the DEA its intention to extend, to the north and south along Puako Beach Drive, the low stone wall that currently fronts the Church at Lot 9. We believe that the Final EA should include a similar statement to the effect that the Church intends to extend the existing 6 foot high rock wall that borders the *makai* boundary of Lot 9 into Lot 10 at the location approximately shown on the Landscape Plan. The Association believes that the 6 foot high rock wall is very important to help keep the compatible, but different, uses and users of Lot 10 separate and private.

4. Clarification of Finish of 6 Foot High Rock Wall.

We also request that the following language on the Landscape Plan included in the Final EA: "6'- 0" High Rock Wall to Match Existing, Typical (Approx. 150 L.F. Total)" be revised to instead read: "6'- 0" High Rock Wall to Match Existing, Typical (Approx. 150 L.F. Total), to be Finished on Both Sides."

5. Storage Area.

Reference is made in several places in the DEA to a "storage shed" or "storage area". Care should be taken in the Final EA to remove these references to the extent they continue to refer to the Storage Area that is shown in the DEA as encroaching into the Access Easement.

6. The 1998 Agreement.

We note that the DEA does not make any reference to the Agreement dated February 25, 1998 (the "**Agreement**") between the Church and the predecessor owners of Lot 12, a copy of which was attached to our letter to you dated January 5, 2011. Among other agreements between the parties, the Church agreed that its portion of Lot 10 would not be used for parking purposes. We appreciate that the Landscape Plan conforms to this agreement in its depiction of Lot 10, but request that a statement be added into the Final EA to the effect that the Church's side of Lot 10 will not be used for parking purposes.

Ron Terry, Principal
Geometrician Associates
June 23, 2011
Page 4

Finally, the Whitakers feel the need to respond to the several comments that implied that they were recent interlopers, intent only on personal profit and/or seeking to "close down Hokuloa permanently." Nothing could be further from the truth. Lot 12 is not a new piece of property. The Land Commission Award establishing Lot 12 was issued in the mid-1800's (probably 1851). The two unit Whale's Tail condominium project located on Lot 12 was created and recorded in 1982, and the Whitakers first purchased a unit in the Whale's Tail in 1998. The Whitakers have been members of the Church and have contributed to their coffers, and they have never suggested anything about closing down the Church. The Whitakers and their predecessors have a long history with this property, which they expect and hope to continue long into the future. Like all neighbors confronted with a plan such as that proposed by the Church, the Whitakers have raised a few issues for you to consider, especially as they relate to the Access Easement and, now, the 6 foot high rock wall, but except for these concerns, the Whitakers have not expressed any opposition to the Church's general plans.

In summary, the Association believes although the Church's use of Lot 10 and the Association's use of Lot 10 are compatible, they are best kept separate. The 6 foot high rock wall enhances the neighborly use of Lot 10 and will help to keep the Church's (and its parishioner's) and the Association's activities separate and private.

Thank you for giving us the opportunity to comment. If we can provide any information or assistance, please do not hesitate to contact us.

Very truly yours,

SCHNEIDER TANAKA RADOVICH
ANDREW & TANAKA, LLLC



Gary S. Kerwood

Cc: Hawaii Conference Foundation (Rev. John Hoover)
Hawai'i State Dept. of Land and Natural Resources,
Land Division (Kevin Moore)
Cc (via email): Jean Campell, Esq.
Dr. Julian ("Mac") and Ms. Connie Whitaker
Sidney Fuke

encl.

M
C



R-861 STATE OF HAWAII
BUREAU OF CONVEYANCES
RECORDED
OCT 13, 2003 10:30 AM
Doc No(s) 2003-222574



/s/ CARL T. WATANABE
REGISTRAR OF CONVEYANCES

20 1/1 Z1

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LAND DIVISION

Total Number of Pages: 4
LOD No. 28611 Tax Map Key Nos. (3)6-9-02:Por. 09 & 10

GRANT OF NON-EXCLUSIVE EASEMENT

THIS INDENTURE, made and entered into this 5th day of September, 2003, by and between the STATE OF HAWAII, by its Board of Land and Natural Resources, hereinafter referred to as the "Grantor," and THE ASSOCIATION OF APARTMENT OWNERS OF THE WHALE'S TAIL, an unincorporated condominium association, whose address is 2 Puako Beach Drive, Kamuela, Hawaii 96743, hereinafter referred to as the "Grantee."

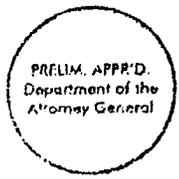
WITNESSETH THAT:

The Grantor, pursuant to Section 171-13, Hawaii Revised Statutes, for good and valuable consideration, the receipt of which is hereby acknowledged, and of the terms, conditions, and covenants herein contained, and on the part of the Grantee to be observed and performed, does hereby grant unto the Grantee, the following non-exclusive and perpetual easement rights:

Right, privilege, and authority to construct, use, maintain, and repair a right-of-way, over, under, and

25452_1.DOC

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



across State-owned land for access and utility purposes,

in, over, under and across that certain parcel of land ("easement area") situate at Lalamilo, Waimea, South Kohala, Island of Hawaii, Hawaii, being identified as "Perpetual Non-Exclusive Access and Utility Easement," containing an area of 5,779 square feet, 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, designated C.S.F. No. 22,868 and dated May 25, 1999, TOGETHER WITH the rights of ingress and egress to and from the easement area for all purposes in connection with the rights hereby granted.

TO HAVE AND TO HOLD the easement rights unto the Grantee, its successors and assigns, in perpetuity, SUBJECT, HOWEVER, to the following terms, conditions and covenants:

1. The Grantee shall at all times with respect to the easement area use due care for public safety and agrees to indemnify, defend, and hold the Grantor harmless from and against any claim or demand for loss, liability, or damage, including claims for bodily injury, wrongful death, or property damage, arising out of or resulting from: 1) any act or omission on the part of the Grantee relating to the Grantee's use, occupancy, maintenance, or enjoyment of the easement area; 2) any failure on the part of the Grantee to maintain the easement area and sidewalks, roadways and parking areas adjacent thereto in the Grantee's use and control, and including any accident, fire or nuisance, growing out of or caused by any failure on the part of the Grantee to maintain the easement area in a safe condition; and 3) from and against all actions, suits, damages, and claims by whomsoever brought or made by reason of the Grantee's non-observance or non-performance of any of the terms, covenants, and conditions of this grant of non-exclusive easement or the rules, regulations, ordinances, and laws of the federal, state, municipal or county governments.

2. The Grantor reserves unto itself, its successors and assigns, the full use and enjoyment of the easement area and to grant to others rights and privileges for any and all purposes affecting the easement area, provided, however, that the rights herein reserved shall not be exercised by the Grantor and similar grantee(s) in any manner which interferes unreasonably with the herein Grantee in the use of the easement area for the purposes for which this easement is granted.

3. All improvements placed in or upon the easement area by the Grantee shall be done without cost or expense to the Grantor and shall remain the property of the Grantee and may be removed or otherwise disposed of by the Grantee at any time; provided, that the removal shall be accomplished with minimum disturbance to the easement area which shall be restored to its original condition, or as close thereto as possible, within a reasonable time after removal.

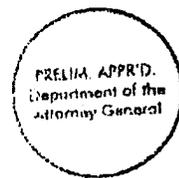
4. Upon completion of any work performed in or upon the easement area, the Grantee shall remove therefrom all equipment and unused or surplus materials, if any, and shall leave the easement area in a clean and sanitary condition satisfactory to the Grantor.

5. This easement shall run with the land and shall inure to the benefit of the real property described as tax map key no. (3)6-9-002:012, providing that the Grantee shall be required to carry liability insurance covering the easement area and comply with all other terms and conditions as provided herein, and that the Grantee, or authorized representative of the Grantee's estate, when this easement is sold, assigned, conveyed, or otherwise transferred, shall notify the Grantee's successors or assigns of the insurance requirement in writing, separate and apart from this easement document.

6. The Grantee shall keep the easement area and the improvements thereon in a safe, clean, sanitary, and orderly condition, and shall not make, permit or suffer, any waste, strip, spoil, nuisance or unlawful, improper, or offensive use of the easement area.

7. Should future development necessitate a relocation of the easement granted herein, or any portion thereof, the relocation shall be accomplished at the Grantee's own cost and expense; provided, however, that if other lands of the Grantor are available, the Grantor will grant to the Grantee without payment of any monetary consideration, a substitute easement of similar width within the reasonable vicinity of the original alignment, which substitute easement shall be subject to the same terms and conditions as that herein granted and as required by law.

8. The Grantee covenants, for itself, its successors and assigns, that the use and enjoyment of the land herein granted shall not be in support of any policy which discriminates against anyone based upon race, creed, sex, color, national origin, religion, marital status, familial status, ancestry,



physical handicap, disability, age or HIV (human immunodeficiency virus) infection.

9. The Grantee, in the exercise of the rights granted herein, shall comply with all of the requirements of the federal, state, and county authorities and shall observe all county ordinances and state and federal laws, rules and regulations, now in force or which may hereinafter be in force.

10. These easement rights shall cease and terminate, and the easement area shall automatically be forfeited to the Grantor, without any action on the part of the Grantor, in the event of non-use or abandonment by the Grantee of the easement area, or any portion thereof, for a consecutive period of one (1) year.

11. The Grantee shall, upon termination and/or revocation of this easement, peaceably deliver unto the Grantor possession of the premises, together with all improvements existing or constructed thereon or Grantee shall remove such improvements and shall restore the premises to its original state, or as close thereto as possible, within a reasonable time and at the expense of the Grantee, at the option of the Grantor. If the Grantee does not remove the improvements or restore the premises to the satisfaction of the Grantor, the Grantor may effect such action and the Grantee agrees to pay all costs and expenses for such action. Furthermore, upon the termination and/or revocation of this easement, should the Grantee fail to remove any and all of Grantee's personal property from the premises, after notice thereof, the Grantor may remove any and all of Grantee's personal property from the premises, and either deem the property abandoned and dispose of the property or place the property in storage at the cost and expense of Grantee and the Grantee does agree to pay all costs and expenses for disposal, removal, or storage of the personal property. This provision shall survive the termination of the easement.

12. In case the Grantor shall, without any fault on its part, be made a party to any litigation commenced by or against the Grantee as a result of this grant of non-exclusive easement (other than condemnation proceedings), the Grantee shall pay all costs, including reasonable attorney's fees and expenses incurred by or imposed on the Grantor; furthermore, the Grantee shall pay all costs, including reasonable attorney's fees and expenses, which may be incurred by or paid by the Grantor in enforcing the covenants and conditions of this grant of non-exclusive easement, or in the collection of delinquent

rental, fees, taxes, and any and all other applicable charges attributed to said easement area.

13. The Grantee shall not cause or permit the escape, disposal or release of any hazardous materials except as permitted by law. Grantee shall not allow the storage or use of such materials in any manner not sanctioned by law or by the highest standards prevailing in the industry for the storage and use of such materials, nor allow to be brought onto the easement area any such materials except to use in the ordinary course of Grantee's business, and then only after written notice is given to Grantor of the identity of such materials and upon Grantor's consent which consent may be withheld at Grantor's sole and absolute discretion. If any lender or governmental agency shall ever require testing to ascertain whether or not there has been any release of hazardous materials by Grantee, then the Grantee shall be responsible for the reasonable costs thereof. In addition, Grantee shall execute affidavits, representations and the like from time to time at Grantor's request concerning Grantee's best knowledge and belief regarding the presence of hazardous materials on the easement area placed or released by Grantee.

The Grantee agrees to indemnify, defend, and hold Grantor harmless, from any damages and claims resulting from the release of hazardous materials on the easement area occurring while Grantee is in possession, or elsewhere if caused by Grantee or persons acting under Grantee. These covenants shall survive the expiration or earlier termination of this easement.

For the purpose of this easement "hazardous material" shall mean any pollutant, toxic substance, hazardous waste, hazardous material, hazardous substance, or oil as defined in or pursuant to the Resource Conservation and Recovery Act, as amended, the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, the Federal Clean Water Act, or any other federal, state, or local environmental law, regulation, ordinance, rule, or bylaw, whether existing as of the date hereof, previously enforced, or subsequently enacted.

14. Time is of the essence in this agreement and if the Grantee shall abandon the premises, or if this easement and premises shall be attached or taken by operation of law, or if any assignment is made of the Grantee's property for the benefit of creditors, or if Grantee shall fail to observe and perform any of the covenants, terms, and conditions contained in this easement and on its part to be observed and performed, and this failure shall continue for a period of more than sixty (60)

calendar days after delivery by the Grantor of a written notice of breach or default, by personal service, registered mail or certified mail to the Grantee at its last known address and to each mortgagee or holder of record having a security interest in the premises, the Grantor may, subject to the provisions of Section 171-21, Hawaii Revised Statutes, at once re-enter the premises, or any part, and upon or without the entry, at its option, terminate this easement without prejudice to any other remedy or right of action for any preceding or other breach of contract; and in the event of termination, at the option of Grantor, all improvements shall remain and become the property of the Grantor or shall be removed by Grantee.

15. The Grantor reserves the right to withdraw the easement for public use or purposes, at any time during this grant of easement upon the giving of reasonable notice by the Grantor and without compensation.

16. The Grantee shall not mortgage or pledge the premises, any portion, or any interest in this easement without the prior written approval of the Chairperson of the Board of Land and Natural Resources and any mortgage or pledge without such approval shall be null and void.

17. In the event the Grantor seeks to forfeit the privilege, interest, or estate created by this easement, each recorded holder of a security interest may, at its option, cure or remedy the default or breach within sixty (60) calendar days, from the date of receipt of the Grantor's notice, or within an additional period allowed by Grantor for good cause, and add the cost to the mortgage debt and the lien of the mortgage. Upon failure of the holder to exercise its option, the Grantor may: (a) pay to the holder from any moneys at its disposal, including the special land and development fund, the amount of the mortgage debt, together with interest and penalties, and secure an assignment of the debt and mortgage from the holder or if ownership of the privilege, interest, or estate shall have vested in the holder by way of foreclosure, or action in lieu thereof, the Grantor shall be entitled to the conveyance of the privilege, interest, or estate upon payment to the holder of the amount of the mortgage debt, including interest and penalties, and all reasonable expenses incurred by the holder in connection with the foreclosure and preservation of its security interest, less appropriate credits, including income received from the privilege, interest, or estate subsequent to the foreclosure; or (b) if the property cannot be reasonably reassigned without loss to the State, then terminate the outstanding privilege, interest, or estate without prejudice to any other right or remedy for any

preceding or other breach or default and use its best efforts to redispense of the affected land to a qualified and responsible person free and clear of the mortgage and the debt secured; provided that a reasonable delay by the Grantor in instituting or prosecuting its rights or remedies shall not operate as a waiver of these rights or to deprive it of a remedy when it may still otherwise hope to resolve the problems created by the breach or default. The proceeds of any redispense shall be applied, first, to reimburse the Grantor for costs and expenses in connection with the redispense; second, to discharge in full any unpaid purchase price or other indebtedness owing the Grantor in connection with the privilege, interest, or estate terminated; third, to the mortgagee to the extent of the value received by the State upon redispense which exceeds the fair market value of the land as previously determined by the State's appraiser; and fourth, to the owner of the privilege, interest, or estate.

18. The Grantee shall procure and maintain, at its own cost and expense, in full force and effect throughout the term of this easement, commercial general liability insurance, or its equivalent, in an amount of at least \$300,000.00 for each occurrence and \$500,000.00 aggregate, with an insurance company or companies licensed to do business in the State of Hawaii. The policy or policies of insurance shall name the State of Hawaii as an additional insured. The insurance shall cover the entire easement area, including all grounds and all roadways or sidewalks on or adjacent to the easement in the use or control of the Grantee.

The Grantee, prior to entry and use of the easement area or within fifteen (15) days after the effective date of this easement, whichever is sooner, shall furnish the Grantor with a certificate(s) showing the policy(s) to be initially in force, keep the certificate(s) on deposit during the entire easement term, and furnish a like certificate(s) upon each renewal of the policy(s). This insurance shall not be cancelled, limited in scope of coverage, or nonrenewed until after thirty (30) days written notice has been given to the Grantor.

The Grantor shall retain the right at any time to review the coverage, form, and amount of the insurance required by this easement. If, in the opinion of the Grantor, the insurance provisions in this easement do not provide adequate protection for the Grantor, the Grantor may require Grantee to obtain insurance sufficient in coverage, form, and amount to provide adequate protection. The Grantor's requirements shall be reasonable but shall be designed to assure protection for and against the kind and extent of the risks which exist at the time

a change in insurance is required. The Grantor shall notify Grantee in writing of changes in the insurance requirements and Grantee shall deposit copies of acceptable insurance policy(s) or certificate(s) thereof, with the Grantor incorporating the changes within thirty (30) days after receipt of the notice.

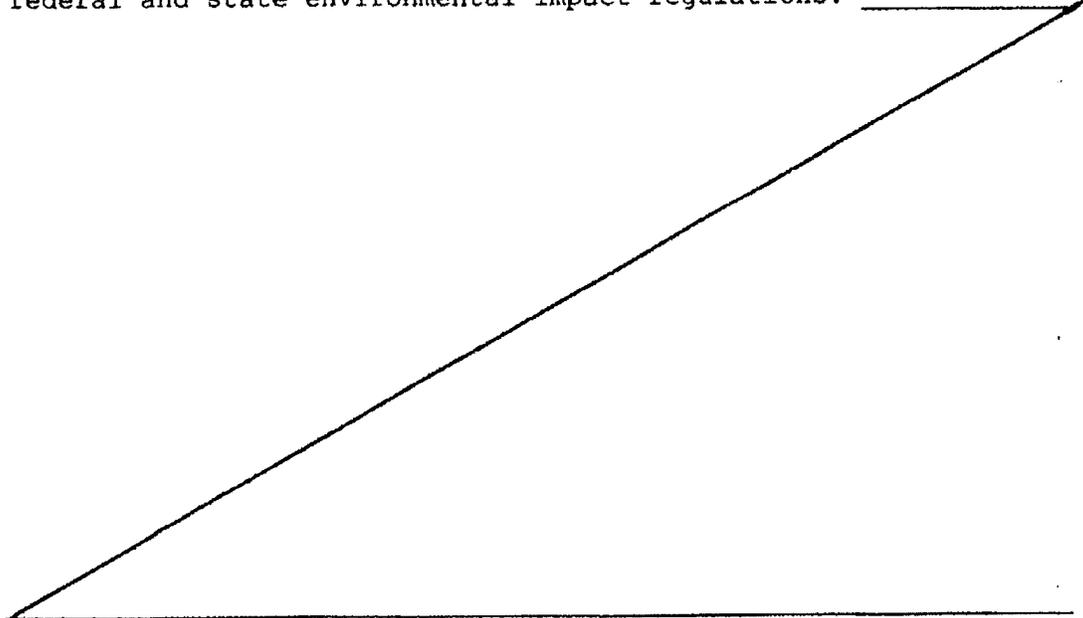
The procuring of the required policy(s) of insurance shall not be construed to limit Grantee's liability under this easement nor to release or relieve the Grantee of the indemnification provisions and requirements of this easement. Notwithstanding the policy(s) of insurance, Grantee shall be obligated for the full and total amount of any damage, injury, or loss caused by Grantee's negligence or neglect connected with this easement.

It is agreed that any insurance maintained by the Grantor will apply in excess of, and not contribute with, insurance provided by Grantee's policy.

19. The easement area shall not be used at any time by the Grantee, its guests or invitees for parking purposes.

20. Grantee shall not construct, place or maintain any building or structure over and upon the easement area.

21. The Grantee shall comply with all applicable federal and state environmental impact regulations.



IN WITNESS WHEREOF, the STATE OF HAWAII, by its Board of Land and Natural Resources, has caused the seal of the Department of Land and Natural Resources to be hereunto affixed and the parties hereto have caused this Indenture to be executed as of the day, month, and year first above written.

STATE OF HAWAII

Approved by the Board of Land and Natural Resources at its meeting held on November 15, 2002.

By [Signature]
Chairperson and Member
Board of Land and Natural Resources

GRANTOR

THE ASSOCIATION OF APARTMENT OWNERS OF WHALE'S TAIL, an unincorporated condominium association

By x [Signature]
[Signature]
Its William O. Adams
Janice L. Adams
MEMBERS

And By [Signature]
[Signature]
Its Robert R. Peabody
Elizabeth A. Peabody
MEMBERS

GRANTEE

APPROVED AS TO FORM:

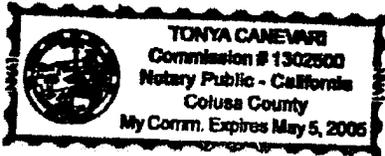
VK [Signature]
Deputy Attorney General

Dated: 8/28/03



STATE OF California
~~HAWAII~~)
COUNTY OF Colusa) SS.

On this 22nd day of May, 2003,
before me personally appeared William O Adams
and Janice L Adams, to me personally known,
who, being by me duly sworn or affirmed, did say that such
person(s) executed the foregoing instrument as the free act and
deed of such person(s), and if applicable in the capacity shown,
having been duly authorized to execute such instrument in such
capacity.



Tonya Canevari
Notary Public, State of ~~Hawaii~~ California
Tonya Canevari
My commission expires: 5/5/05



CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California }
County of SACRAMENTO } ss.

On MAY 26 2003 before me, LESLIE S. LANG NOTARY PUBLIC
Date Name and Title of Officer (e.g., "Jane Doe, Notary Public")
personally appeared LESLIE R. PEABODY + ELIZABETH A. PEABODY
Name(s) of Signer(s)

personally known to me
 proved to me on the basis of satisfactory evidence



to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Leslie S. Lang
Signature of Notary Public
LESLIE S. LANG

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: GRANT OF NON-EXCLUSIVE EASEMENT
Document Date: MAY 26, 2003 Number of Pages: 10
Signer(s) Other Than Named Above: WILLIAM O. ADAMS + JAMES L. ADAMS

Capacity(ies) Claimed by Signer

Signer's Name: _____
 Individual
 Corporate Officer — Title(s): _____
 Partner — Limited General
 Attorney-in-Fact
 Trustee
 Guardian or Conservator
 Other: _____
Signer Is Representing: _____





STATE OF HAWAII

SURVEY DIVISION

DEPT. OF ACCOUNTING AND GENERAL SERVICES

HONOLULU

C.S.F. No. 22,868

May 25, 1999

PERPETUAL NON-EXCLUSIVE
ACCESS AND UTILITY EASEMENT

Lalamilo, Waimea, South Kohala, Island of Hawaii, Hawaii

Being a portion of the Government (Crown) Ili of Lalamilo in
Waimea.

Beginning at the southwest corner of this easement and on the north
side of Kawaihae-Puako Road, the coordinates of said point of beginning referred to
Government Survey Triangulation Station "PUAKO" being 1513.06 feet South and
2354.02 feet West, thence running by azimuths measured clockwise from True
South:-

- | | | |
|----|---|--|
| 1. | 185° 30' | 18.79 feet along L.P. S-8547, L.C.Aw. 8559-B,
Ap. 6 to William C. Lunalilo; |
| 2. | 221° 00' | 85.40 feet along L.P. S-8547, L.C.Aw. 8559-B,
Ap. 6 to William C. Lunalilo; |
| 3. | 261° 43' 15" | 80.25 feet along L.C.Aw. 3758 to Akahi; |
| 4. | 4° 39' 30" | 26.88 feet along R.P. 7137, L.C.Aw. 4102 to
Kamahai; |
| 5. | 33° 07' 15" | 38.72 feet along the remainder of the Government
(Crown) Ili of Lalamilo; |
| 6. | 95° 11' | 10.45 feet along the remainder of the Government
(Crown) Ili of Lalamilo; |
| 7. | Thence along the remainder of the Government (Crown) Ili of Lalamilo on a
curve to the right with a radius of 15.00
feet, the chord azimuth and distance being:
114° 34' 9.96 feet; | |

EXHIBIT "A"

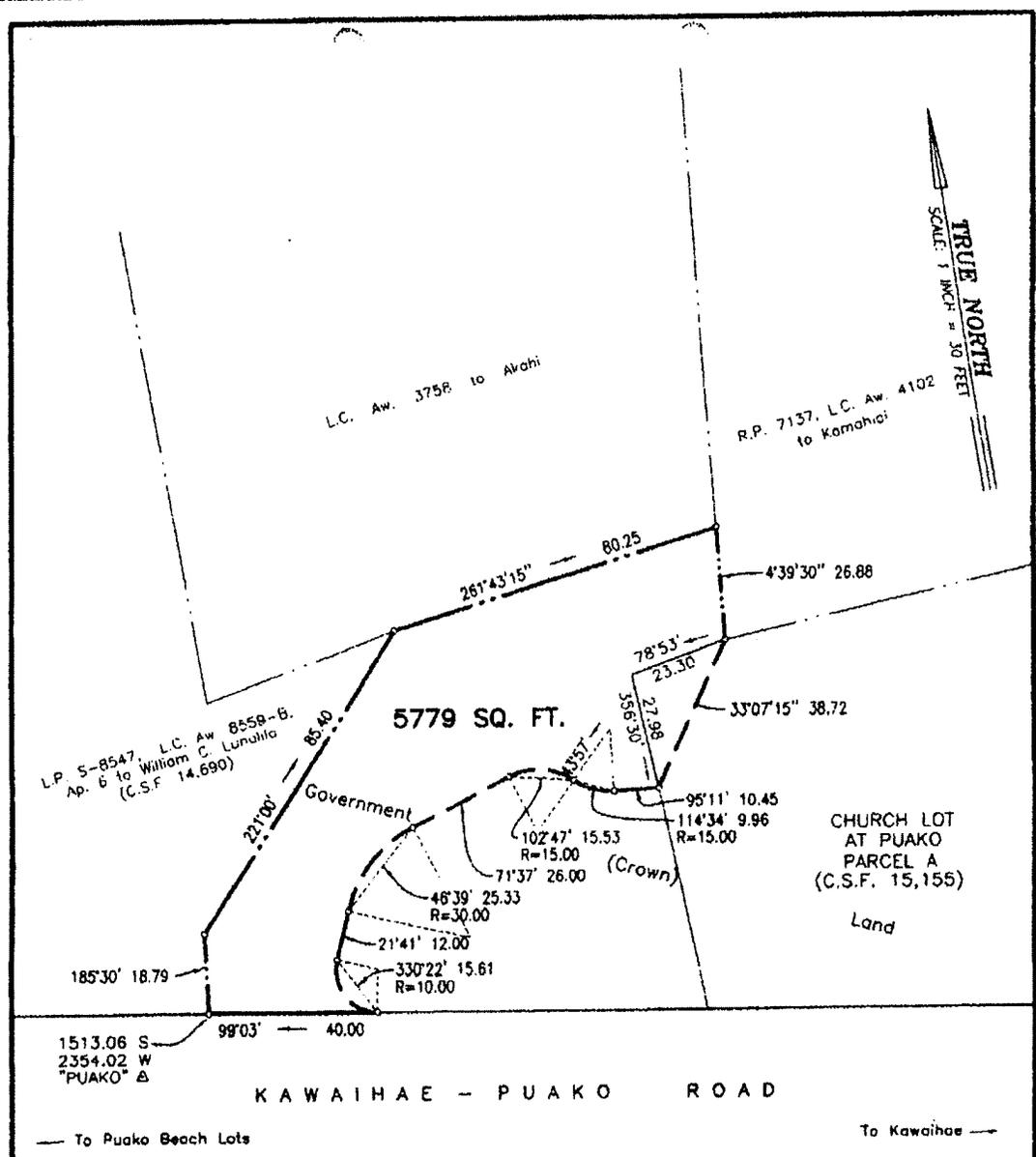
May 25, 1999

8. Thence along the remainder of the Government (Crown) Ili of Lalamilo on a curve to the left with a radius of 15.00 feet, the chord azimuth and distance being:
102° 47' 15.53 feet;
9. 71° 37' 26.00 feet along the remainder of the Government (Crown) Ili of Lalamilo;
10. Thence along the remainder of the Government (Crown) Ili of Lalamilo on a curve to the left with a radius of 30.00 feet, the chord azimuth and distance being:
46° 39' 25.33 feet;
11. 21° 41' 12.00 feet along the remainder of the Government (Crown) Ili of Lalamilo;
12. Thence along the remainder of the Government (Crown) Ili of Lalamilo on a curve to the left with a radius of 10.00 feet, the chord azimuth and distance being:
330° 22' 15.61 feet;
13. 99° 03' 40.00 feet along the north side of Kawaihae-Puako Road to the point of beginning and containing an AREA OF 5779 SQUARE FEET.

SURVEY DIVISION
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
STATE OF HAWAII

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

Compiled from data furn. by
Wes Thomas Associates,
CSFs 14690, 15155, 18292
and Govt. Survey Records.
TMK: 6-9-02:por. 9 & 10



**PERPETUAL NON-EXCLUSIVE
ACCESS AND UTILITY EASEMENT**

Lalamilo, Waimea, South Kohala, Island of Hawaii, Hawaii

Scale: 1 Inch = 30 feet

JOB H-100(98)
C. BK.

REDUCED NOT TO SCALE

TAX MAP 6-9-02:Por. 9&10

SURVEY DIVISION
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
STATE OF HAWAII

C.S.F. NO. 22,868

A.N. May 25, 1999

EXHIBIT "B"

geometrician

ASSOCIATES, LLC
integrating geographic science and planning

phone: (808) 969-7090 PO Box 396 Hilo Hawaii 96721 rterry@hawaii.rr.com

August 5, 2011

Gary S. Kerwood
Schneider Tanaka et al
1100 Alakea Street, Suite 2100
Honolulu HI 96813

Dear Mr. Kerwood:

Subject: Comment to Draft Environmental Assessment for Lease of State Land, Hokuloa United Church of Christ, TMK (3rd) 6-9-002: 007, 008, 009 & 010, Puakō, Island of Hawai'i

Thank you for your comment letter dated June 23, 2011, on the Draft EA. In answer to your specific comments:

- 1: Encroachment of rock wall. *The Church inadvertently overlooked the Grant of Non-Exclusive Easement in favor of the Association of Apartment Owners of the Whale's Tail dated September 5, 2003 recorded in the Bureau of Conveyances of the State of Hawai'i as Document No. 2003-222574 as it affects Parcel 10. The landscape plan has been revised to relocate the extension of the rock wall at the southwest corner of Parcel 9, which encroached onto the easement area.*
- 2: New Rock Wall. *The Church intends to work with the contractor building the 6-foot rock wall within Parcel 10 to ensure that it does not encroach on the easement area.*
- 3: 1998 agreement and parking on Lot 10. *As we understand it, no party currently has the right to park on Parcel 10. The Church is not seeking to use Parcel 10 for parking.*
- 4: The Whitakers are not interlopers seeking only personal profit and the permanent closure of Hokuloa Church. *We acknowledge this comment.*

We very much appreciate your review of the document. If you have any questions about the EA, please contact me at (808) 969-7090.

Sincerely,

A handwritten signature in black ink that reads "Ron Terry". The signature is written in a cursive style with a large, stylized "R" and a long, sweeping underline that extends to the right.

Ron Terry, Principal
Geometrician Associates

Cc: Kevin Moore, Hawai'i DLNR; Pastor John Hoover, Hokuloa Church