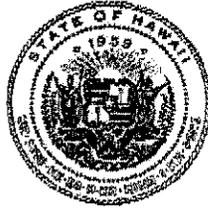
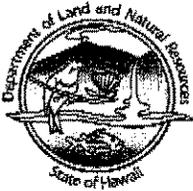


LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
DEPUTY DIRECTOR - LAND

DEAN NAKANO
ACTING DEPUTY DIRECTOR - WATER

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

MEMORANDUM

NOV 28 2005

TO: Genevieve Salmonson, Director
Office of Environmental Quality Control

FROM: Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

SUBJECT: Final Environmental Assessment (FEA)/Finding of No Significant Impact (FONSI)
for Conservation District Use Application (CDUA) OA-3253

The Department has reviewed the Koolau Golf Partners CDUA OA-3253, and Final Environmental Assessment (FEA) for the proposed consolidation and subdivision for Subject Parcels TMK's: (1) 4-5-042:001 and 006. The Draft Environmental Assessment (DEA) for CDUA OA-3253 was published in OEQC's October 8, 2005 Environmental Notice for the project.

The FEA is being submitted to OEQC. We have determined that this project will not have significant environmental effects, and have therefore issued a FONSI. Please publish this notice in OEQC's upcoming December 8, 2005 Environmental Notice.

We have enclosed four copies of the FEA and CDUA OA-3253 for the project. The OEQC Bulletin Publication Form is attached. Comments on the draft EA were sought from relevant agencies and the public, and were included in the FEA.

Please contact Dawn Hegger of our Office of Conservation and Coastal Lands staff at 587-0380 if you have any questions on this matter.

Enclosures

cc: Tom Schnell PBR

draft for Dawn will send original by messenger for USPS

2005-12-08-0A-FEA KOOLAU PROPERTY CONSOLIDATIONS AND
RE-SUBDIVISION

DEC - 8 2005
FILE COPY

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION

Final Environmental Assessment

Prepared for:
The Approving Agency,
The Department of Land & Natural Resources

And

Ko'olau Golf Partners

DEPARTMENT OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

2005 NOV 16 A 11:32

RECEIVED
OFFICE OF CONSERVATION
HONOLULU, HAWAII

Prepared by:



November 2005

**KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment**

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	SUMMARY	1
1.2	LOCATION	2
1.3	LAND OWNERSHIP.....	2
1.4	IDENTIFICATION OF THE APPLICANT	2
1.5	IDENTIFICATION OF THE APPROVING AGENCY.....	2
1.6	IDENTIFICATION OF THE PLANNING CONSULTANT	3
1.7	COMPLIANCE WITH STATE OF HAWAII ENVIRONMENTAL LAWS.....	3
1.8	IDENTIFICATION OF AGENCIES/INDIVIDUALS CONSULTED.....	3
2.0	KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION DESCRIPTION.....	5
2.1	BACKGROUND INFORMATION.....	5
2.1.1	Location and Surrounding Uses.....	5
2.1.2	Description of the Ko'olau Property.....	5
2.1.3	Consolidation and Re-subdivision	6
2.2	PROJECT TIMETABLE	6
3.0	LAND USE CONFORMANCE	7
3.1	STATE OF HAWAII.....	7
3.1.1	State Environmental Impact Statement Law, Chapter 343, Hawaii Revised Statutes.....	7
3.1.2	State Land Use Law, Chapter 205, Hawaii Revised Statutes.....	7
3.1.3	State Conservation District Law, Chapter 183C, Hawaii Revised Statutes	7
3.1.4	State Conservation District Administrative Rules	8
3.2	CITY AND COUNTY OF HONOLULU	10
3.2.1	General Plan	11
3.2.2	Ko'olau Sustainable Communities Plan	12
3.2.3	City and County of Honolulu Zoning	13
3.2.4	Special Management Area	13
3.3	APPROVALS AND PERMITS	13
4.0	DESCRIPTION OF THE NATURAL ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES.....	15
4.1	CLIMATIC CONDITIONS.....	15
4.2	TOPOGRAPHY AND GEOLOGY.....	15
4.3	SOILS AND DRAINAGE	16
4.4	NATURAL HAZARDS.....	18
4.5	FLORA.....	18
4.6	FAUNA	19
5.0	ASSESSMENT OF EXISTING HUMAN ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES.....	21
5.1	ARCHAEOLOGICAL AND HISTORIC RESOURCES	21
5.2	CULTURAL RESOURCES.....	21
5.3	TRAILS AND RECREATION	22
5.4	ROADWAYS AND TRAFFIC	22
5.5	NOISE.....	23
5.6	AIR QUALITY	23
5.7	VISUAL RESOURCES.....	23
5.8	SOCIAL AND DEMOGRAPHIC CHARACTERISTICS.....	24
5.9	ECONOMIC CHARACTERISTICS	24

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

5.10	AREA INFRASTRUCTURE	25
5.11	PUBLIC SERVICES.....	26
6.0	ALTERNATIVES TO THE PROPOSED ACTION.....	27
6.1	THE NO-ACTION ALTERNATIVE.....	27
6.2	THE CHANGE IN LAND USE DISTRICT ALTERNATIVE	27
6.3	THE PREFERRED ALTERNATIVE	27
7.0	DETERMINATION, FINDINGS, AND REASONS FOR SUPPORTING DETERMINATION	29
7.1	SIGNIFICANCE CRITERIA.....	29
7.2	DETERMINATION	31
8.0	REFERENCES.....	33
9.0	COMMENT ON THE DRAFT ENVIRONMENTAL ASSESSMENT.....	35

**KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment**

LIST OF FIGURES

Figure		Follows Page
1	Regional Location Map.....	4
2	TMK Map	4
3A	Ko'olau Property Existing Subdivision	6
3B	Ko'olau Property Proposed Subdivision.....	6
4	Site Photographs Ko'olau Property	6
5	State Land Use Districts.....	8
6	State Conservation District Subzones.....	8
7	Ko'olaupoko Sustainable Communities Plan	12
8	Zoning Map.....	12
9	Natural Resources Conservation Services (NRCS)	16
10	Detailed Land Classification Map	16
11	Agricultural Lands of Importance to the State of Hawai'i (ALISH)	16
12	Flood Insurance Rate Map (FIRM).....	16
13	Archaeological Resources.....	22

**KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment**

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**KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment**

1.0 INTRODUCTION

This environmental assessment (EA) is prepared in accordance with Chapter 343, *Hawaii Revised Statutes (HRS)*, for the consolidation and re-subdivision of the subject property located in the State Conservation District in Kāne'ōhe, Ko'olaupoko, O'ahu, Hawai'i. This chapter briefly reviews the background and nature of the proposed project, relevant statutory requirements, and the various sources consulted to develop the assessment.

1.1 SUMMARY

Project Name:	Ko'olau Property Consolidation and Re-subdivision
Location:	Kāne'ōhe, O'ahu, Hawai'i
Judicial District:	Ko'olaupoko
Landowner:	Ko'olau Golf Partners
Applicant:	Ko'olau Golf Partners
Tax Map Key:	4-5-042:001, 219.815 acres 4-5-042:006, 460.035 acres
Project Area:	668.1 approximately 673 acres ¹
Existing Uses:	Ko'olau Golf Course, Clubhouse, and accessory structures; and 427.7± acres of undeveloped land
Proposed Use:	No change
Land Use Designations:	State Land Use District: Conservation Conservation Subzones: General, Resource, and Protective County Zoning: P-1 Restricted Sustainable Communities Plan: Open Space/Preservation and Major Parks, Golf Courses, Cemeteries and Nature Preserves
Special Management Area (SMA):	Not in the SMA
Permits/Approvals Required:	Compliance with Chapter 343, <i>Hawaii Revised Statutes</i> Conservation District Departmental Permit Subdivision Approval
Approving Agency:	Department of Land and Natural Resources

¹ Project area has been updated to reflect more accurate survey data obtained recently.

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

1.2 LOCATION

The subject property lies beneath the steep windward slopes of the Ko'olau Mountains in Kāne'ohe, O'ahu, Hawai'i (Figure 1). The property is bound by the Ko'olau Mountain crest to the south, Interstate Highway H-3 and Ho'omaluhia Botanical Garden to the north, Kionaole Road to the east, and the Likelike Highway to the west.

1.3 LAND OWNERSHIP

Ko'olau Golf Partners owns the subject property, referenced by TMK 4-5-042:001 and TMK 4-5-042:006 (herein referred to as the "Ko'olau Property").

1.4 IDENTIFICATION OF THE APPLICANT

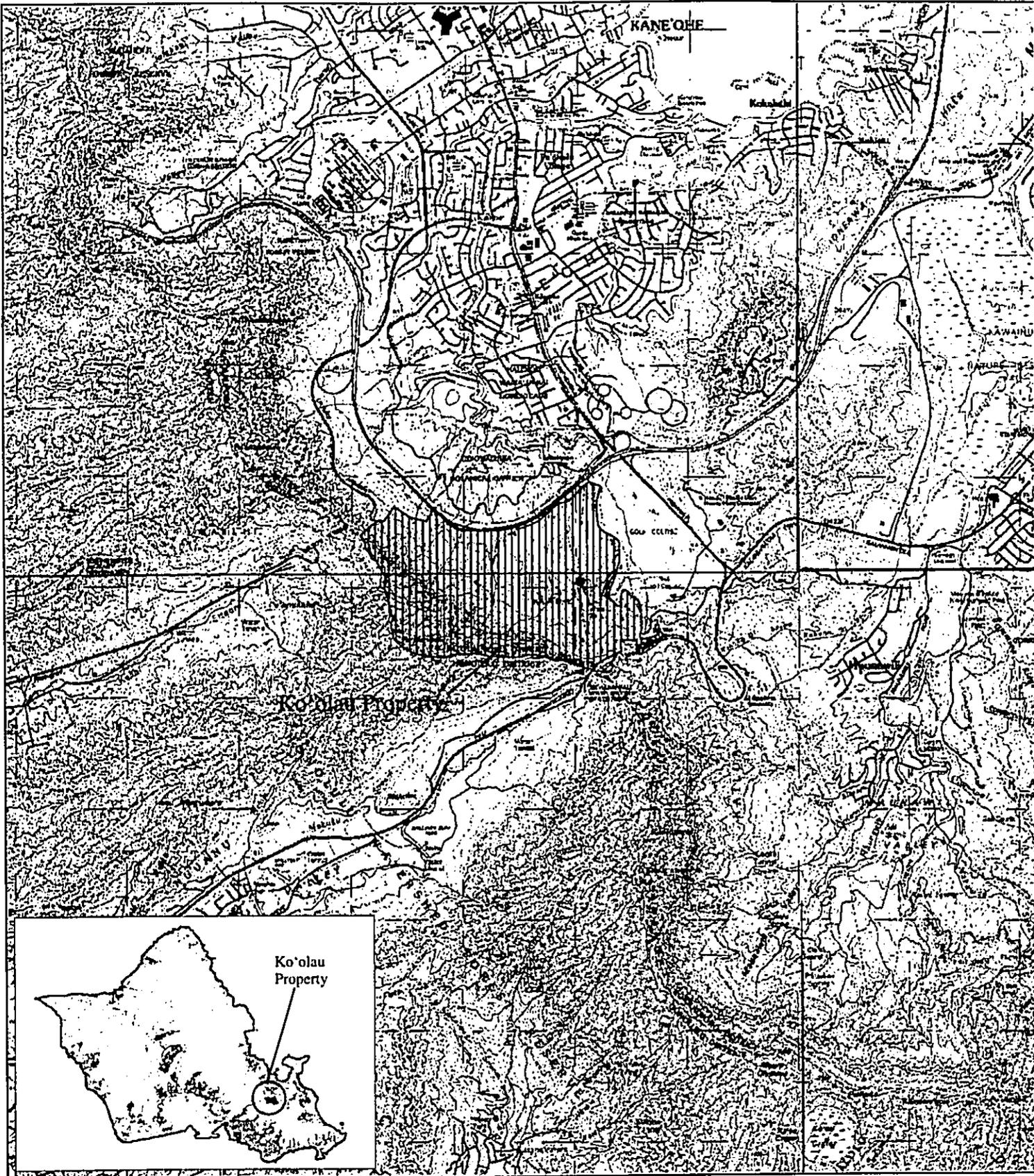
The applicant is Ko'olau Golf Partners.

Contact: Mr. Tim Chun
Ko'olau Golf Partners
18401 Von Karman Avenue, Suite 350
Irvine, California 92612
Telephone: (949) 253-7130
Fax: (949) 253-7131

1.5 IDENTIFICATION OF THE APPROVING AGENCY

In accordance with Chapter 343, HRS, environmental assessments must be accepted by the government agency empowered to issue permits for the project. In this instance, the Department of Land and Natural Resources Office of Conservation and Coastal Lands is the approving agency.

Contact: Mr. Sam Lemmo
State of Hawai'i
Department of Land and Natural Resources
Office of Conservation and Coastal Lands
P.O. Box 621
Honolulu, Hawai'i 96809
Telephone: (808) 587-0377
Fax: (808) 587-0322



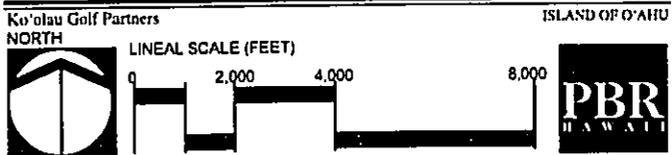
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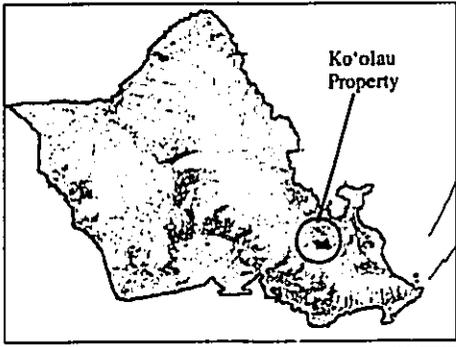
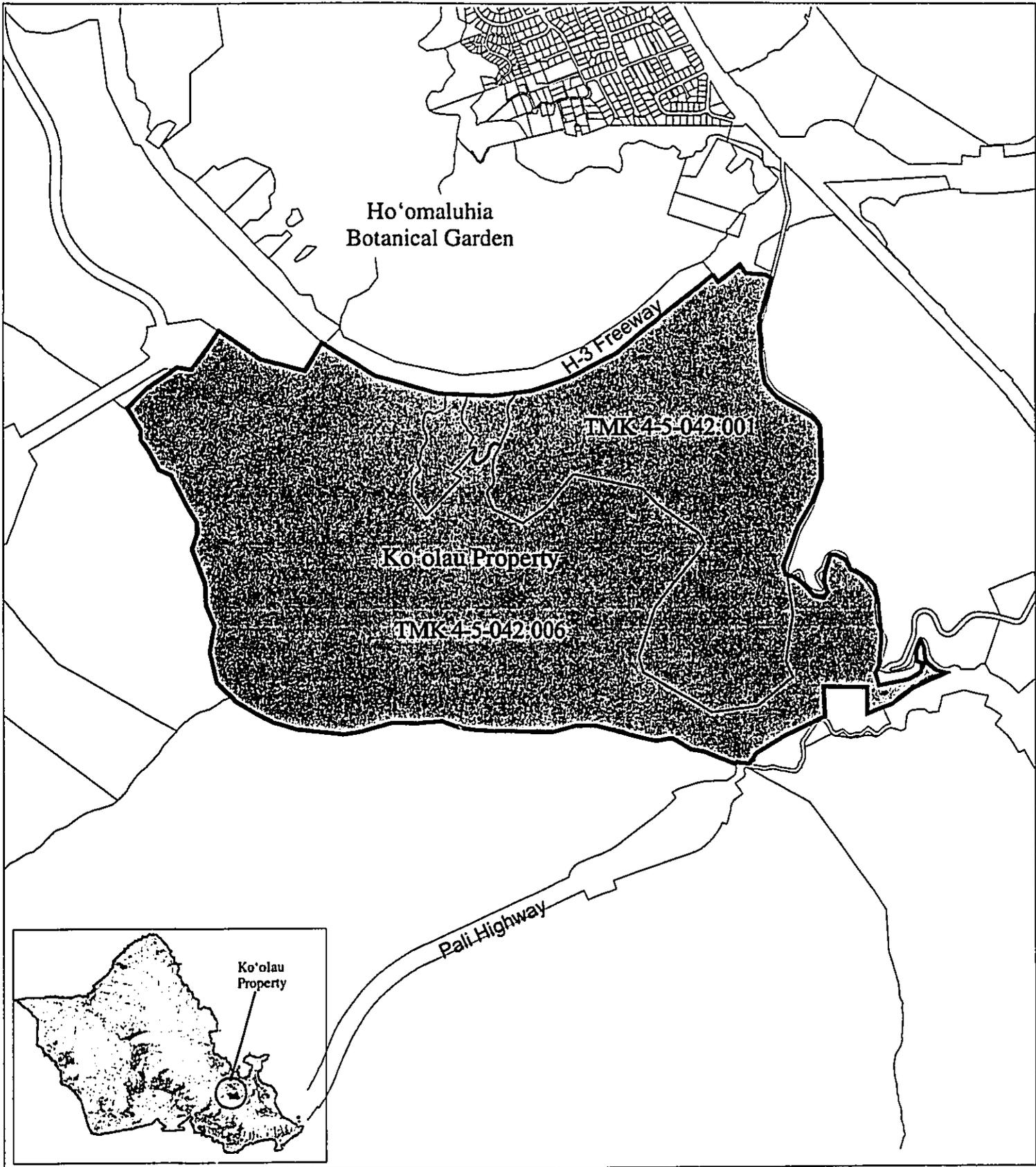
 Ko'olau Property

Source: USGS Map

Disclaimer:
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general planning purposes only.

Figure 1
Regional Location Map
**Ko'olau Property
Consolidation and Re-subdivision**





Legend

 Ko'olau Property

Source: Tax Map Key

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Figure 2
TMK Map

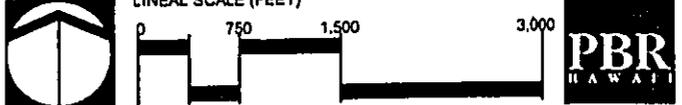
**Ko'olau Property
Consolidation and Re-subdivision**

Ko'olau Golf Partners

ISLAND OF O'AHU

NORTH

LINEAL SCALE (FEET)



KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

1.6 IDENTIFICATION OF THE PLANNING CONSULTANT

The planning consultant is PBR Hawaii.

Contact: Tom Schnell, AICP
PBR HAWAII
1001 Bishop Street
ASB Tower, Suite 650
Honolulu, Hawai'i 96813
Telephone: (808) 521-5631
Fax: (808) 523-1402

1.7 COMPLIANCE WITH STATE OF HAWAII ENVIRONMENTAL LAWS

Section 343-5, *Hawaii Revised Statutes* (HRS), establishes nine "triggers" that require the preparation of an environmental assessment or environmental impact statement. Actions within the State Conservation District are one of the "triggers" that require an environmental assessment. The Ko'olau Property is within the State Conservation District and, as such, this environmental assessment is prepared in compliance with Chapter 343, HRS, and in accordance with the provisions of *Hawaii Administrative Rules* (HAR), Title 11, Department of Health, Chapter 200, Environmental Impact Statement Rules.

This environmental assessment has also been prepared to satisfy the requirements of HAR Title 13, Department of Land and Natural Resources, Subtitle 1 Administration, Chapter 5, Conservation District Rules. These rules require an environmental assessment as part of a Conservation District Use Application (CDUA). The CDUA is required to obtain the Conservation District Departmental Permit required for consolidation and re-subdivision of land within the Conservation District.

1.8 IDENTIFICATION OF AGENCIES/INDIVIDUALS CONSULTED

Public agencies (or agency documents), private institutions, and individuals were consulted in the course in the preparation of this environmental assessment. These include:

State of Hawai'i Agencies

- Department of Agriculture
- Department of Land and Natural Resources (DLNR)
 - Historic Preservation Division
 - Office of Conservation and Coastal Lands
 - State Parks Division
- Land Use Commission

City and County of Honolulu Agencies and Individuals

- City Clerk
- Department of Planning and Permitting (DPP)

**KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment**

Private Organizations

- Hawaiian Electric Company
- Kaikane Corporation
- Ko'olau Golf Course

Federal Agencies

- Census Bureau
- Federal Emergency Management Agency
- U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS)
- U.S. Geological Survey

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

2.0 KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION DESCRIPTION

This chapter provides a brief description of the Ko'olau Property and the proposed consolidation and re-subdivision action.

2.1 BACKGROUND INFORMATION

Prior to 1974, Harold K. L. Castle owned the Ko'olau Property and several other properties in the area. Upon his death, his estate donated several parcels of land to Iolani School, including the Ko'olau Property (TMK 4-5-42:001 and 006).

In 1981, Iolani School proposed to develop residential housing on a substantial portion of their property in an effort to increase the School's endowment fund. Iolani School petitioned the State Land Use Commission to reclassify the property from the State Conservation District to the State Urban District. In 1984, Iolani School decided to withdraw the petition for reclassification from the Land Use Commission.

In 1986, Iolani School sold the Ko'olau Property to Nitto Kogyo Company, Ltd., who intended to develop the property as a world class golf course. The Ko'olau Golf Course development was approved and construction began in 1987. The golf course and related buildings were completed in 1992. The current owners, Ko'olau Golf Partners, gained ownership in 2003 (honolulupropertytax.com).

2.1.1 Location and Surrounding Uses

The Ko'olau Property is located at the foot of the steep windward slopes of the Ko'olau Mountains in Kāne'ohe, O'ahu, Hawai'i (Figure 1). It is bound to the south by the summit of the Ko'olau Range, to the north by Interstate Highway H-3 and Ho'omaluhia Botanical Garden, to the east by Kionaole Road, and to the west by Likelike Highway.

The unimproved southwest portion of the Property, located mauka of the Ko'olau Golf Club, is part of the Ko'olau State Forest Reserve. The Pali Golf Course is east of the Ko'olau Property, across Kionaole Road. Ho'omaluhia Botanical Garden is directly north of the golf course and property.

2.1.2 Description of the Ko'olau Property

The Ko'olau Property consists of two parcels referenced by TMK 4-5-42:001 and 006 (Figures 2 and 3A). TMK 4-5-42:001 contains the majority of the Ko'olau Golf Club (which includes an 18-hole golf course and a clubhouse) and TMK 4-5-042:006 contains a portion of the golf course, but is primarily unimproved.

The elevation of the Ko'olau Property ranges between 300 feet to 2,700 feet (mountain ridge) above mean sea level. Slopes range between zero percent to greater than 40 percent. Most of the Ko'olau Golf Course and Clubhouse area is between zero to 20 percent slopes, with some

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

intermittent ridges and valleys modifying these slopes. Figure 4 contains photographs of the Ko'olau Property.

2.1.3 Consolidation and Re-subdivision

The property owner, Ko'olau Golf Partners, is requesting approval to consolidate and re-subdivide the existing two parcels into two reconfigured parcels. Although the TMK map lists total acreage of the two existing parcels as 679.85 acres, a recent survey done of the Ko'olau Property estimated total acreage to be ~~668.4~~ 673 acres. Therefore, the following consolidation and re-subdivision figures are based on ~~668.4~~ 673 acres.

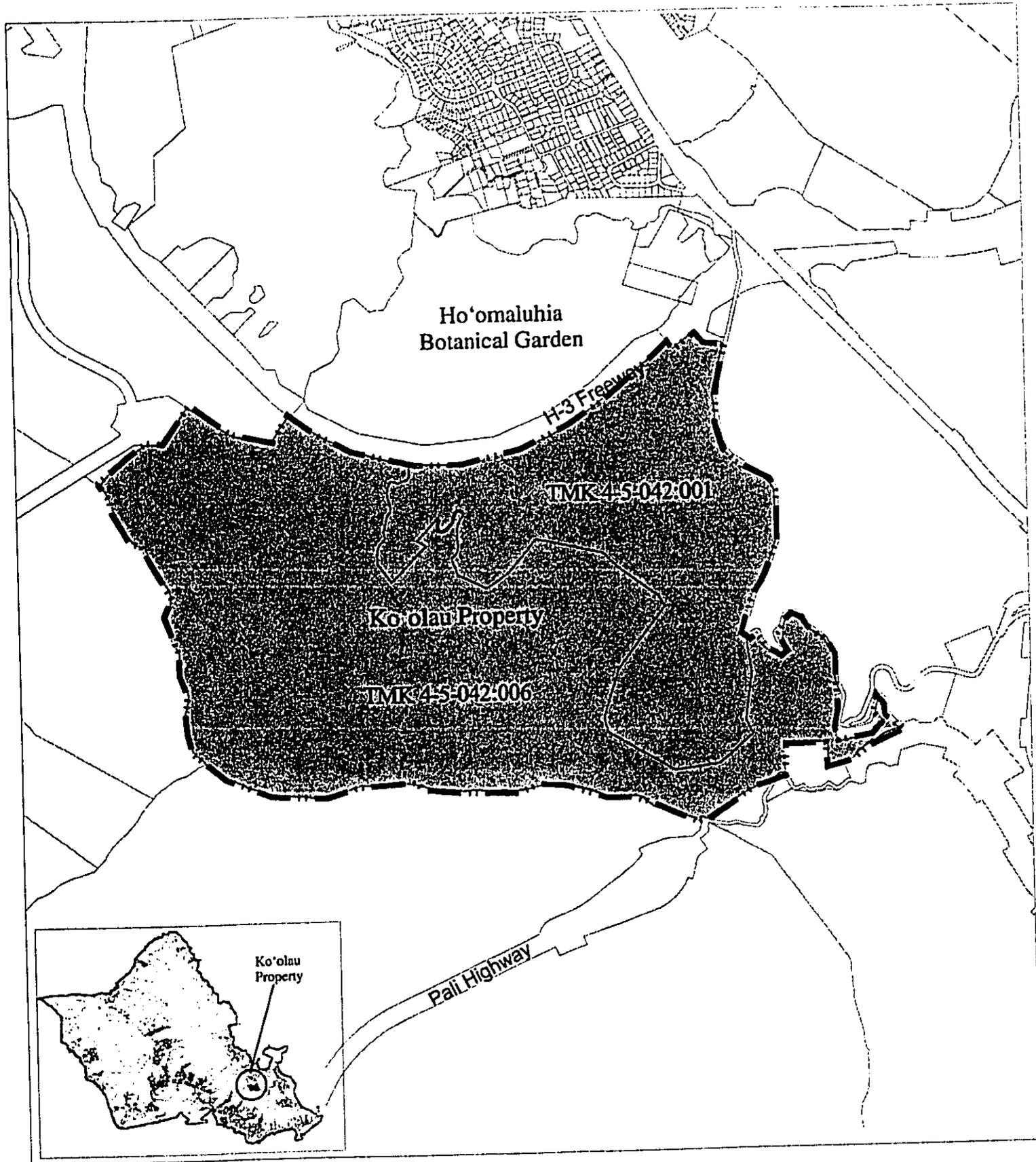
The first reconfigured parcel would include the entire golf course, clubhouse, parking area, and support facilities within a ~~240.4~~ 245.3-acre parcel (shown as Parcel 1 in Figure 3B). Currently, the golf course-related facilities are located in both existing parcels. Figure 3B shows the proposed subdivision configuration. No new lots will be created and there will be no change in land use as a result of the proposed action. In addition, no physical improvements are proposed.

Uses for the unimproved portion contained in the 427.7-acre parcel (shown as Parcel 2 in Figure 3B) are not known at this time; however, the intent is to keep the area primarily in its natural, undeveloped state. Ko'olau Golf Partners is currently in discussions with a third party regarding ecotourism opportunities on the property, which may include a botanical garden and private park, guided hiking tours, and possibly other recreational activities.

Any future changes in land uses on the properties may require a separate environmental assessment or environmental impact statement in which specific effects related to the proposed land use and mitigative measures would need to be addressed.

2.2 PROJECT TIMETABLE

This environmental assessment was completed as a requirement of the DLNR Departmental Permit application process. Once the application was considered complete by the DLNR, a letter of acceptance was issued on September 16, 2005. The Departmental Permit application must be processed within a statutory 180-day period, which expires on March 15, 2006.

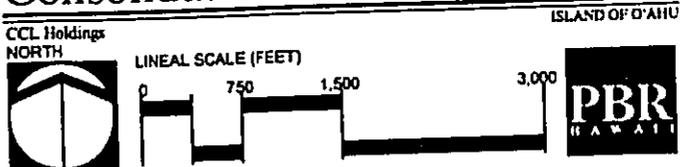


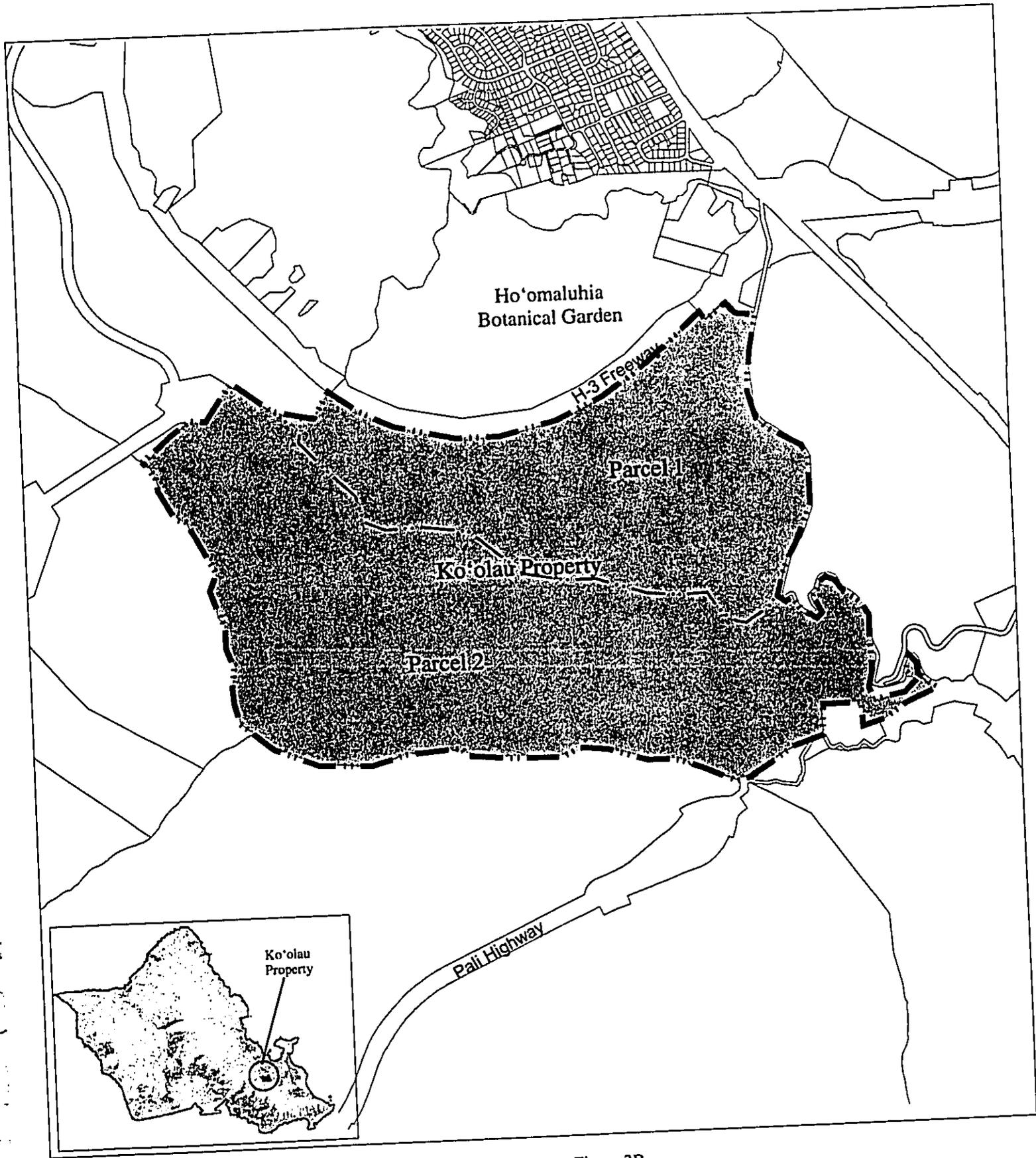
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 Ko'olau Property

Figure 3A
 Existing Subdivision
 Ko'olau Property
 Consolidation and Re-subdivision

Source: The City and County of Honolulu GIS Database
 Disclaimer: This graphic has been prepared for general planning purposes only.



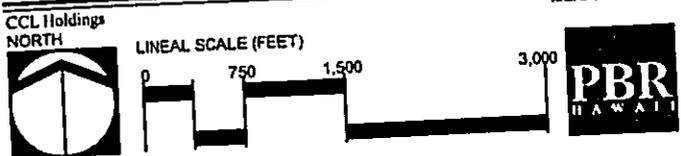


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 Ko'olau Property

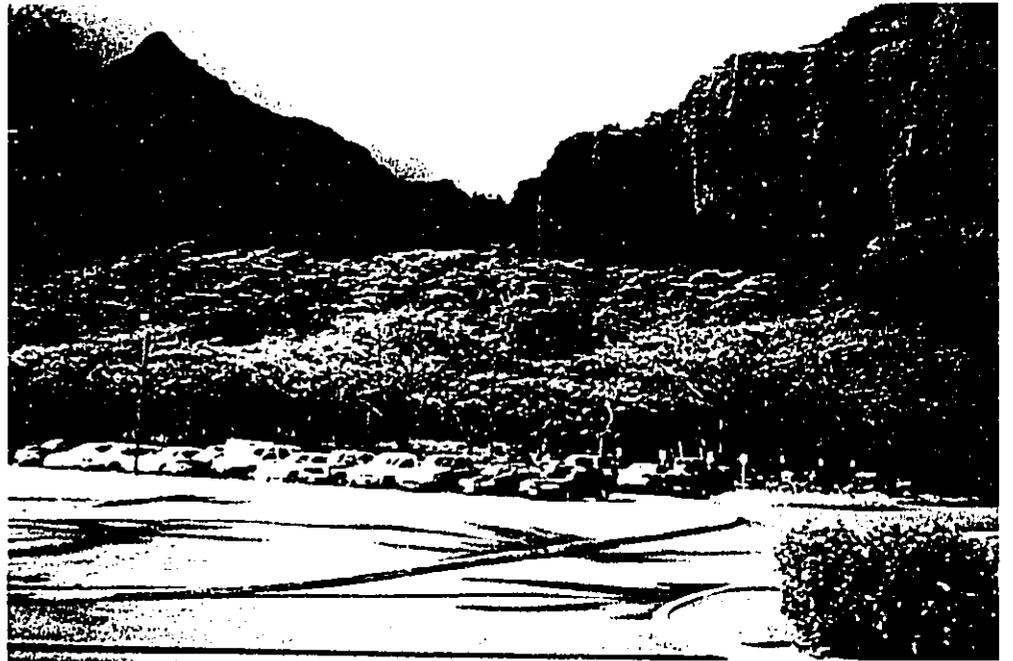
Source: The City and County of Honolulu GIS Database
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Figure 3B
 Proposed Subdivision
 Ko'olau Property
 Consolidation and Re-subdivision





1. View of the Ko'olau Mountains from the Ko'olau Golf Course.



2. View of the Ko'olau Golf Course parking lot. Pali Highway and Nu'uuanu Pali Lookout can be seen.



4. View of Kāne'ohe from Ko'olau Golf Course.



5. Ko'olau Golf Course Clubhouse.



Pali Highway and



3. View of Ko'olau Golf Course.



e.

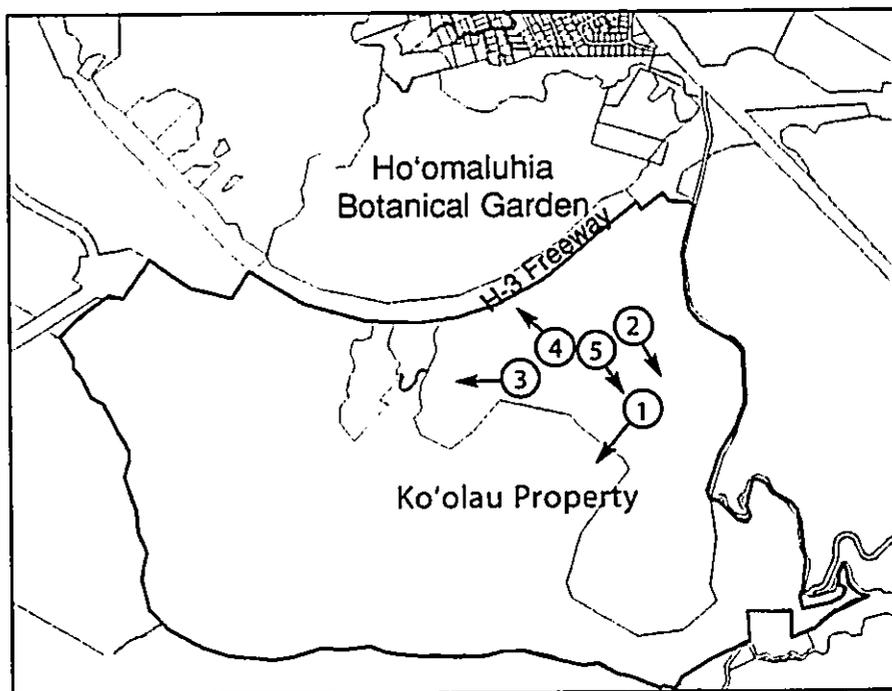


Figure 4

Site Photographs
Ko'olau Property

Ko'olau Property Consolidation and Re-subdivision

Ko'olau Golf Partners

Island of O'ahu



KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

3.0 LAND USE CONFORMANCE

This chapter describes State of Hawai'i and City and County of Honolulu land use plans, policies, and ordinances relevant to consolidating and re-subdividing the Ko'olau Property. Each section includes a discussion of how the consolidation and re-subdivision conforms to the plans and requirements.

3.1 STATE OF HAWAI'I

3.1.1 State Environmental Impact Statement Law, Chapter 343, Hawaii Revised Statutes

The State Environmental Impact Statement Law (Chapter 343, HRS) requires that an environmental assessment be prepared for "any use within any land classified as conservation district." The Ko'olau Property is within the State Conservation District.

Ko'olau Golf Partners is not proposing any change in use within the Ko'olau Property. However, a Conservation District Departmental Permit from the Department of Land and Natural Resources (DLNR) is required for the consolidation and re-subdivision of land in the Conservation District. This environmental assessment is prepared as one of the prerequisites of obtaining a Conservation District Departmental Permit and is in compliance with the State Environmental Impact Statement Law (Chapter 343, HRS).

3.1.2 State Land Use Law, Chapter 205, Hawaii Revised Statutes

The State Land Use Law (Chapter 205, HRS) establishes the State Land Use Commission (LUC). This body has the authority to designate all lands in the State into one of four districts: Urban, Rural, Agricultural, or Conservation. As stated above, the Ko'olau Property is within the State Conservation District (Figure 5). Chapter 205, HRS delegates authority to govern the Conservation District to the DLNR, pursuant to the Conservation District Law (Chapter 183C, HRS).

3.1.3 State Conservation District Law, Chapter 183C, Hawaii Revised Statutes

The State Conservation District Law (Chapter 183C, HRS) requires the DLNR to: 1) establish subzones within the Conservation District; 2) adopt Administrative Rules governing the use of land within the Conservation District and the subzones; and 3) regulate land use in the Conservation District by the issuance of permits.

The entire Ko'olau Property is located within the State Conservation District (Figure 5). The property is in the General, Resource, and Protective Subzones (Figure 6).

The State Conservation District Administrative Rules (discussed further in the following section) permit the consolidation and re-subdivision of land into an equal number of lots that does not result in increased density. As previously noted, the applicant is requesting a Departmental

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

Permit from the DLNR to consolidate the golf course and related facilities into one parcel, and the unimproved land into another parcel.

3.1.4 State Conservation District Administrative Rules

The State Conservation District Administrative Rules (HAR, Title 13, DLNR, Subtitle 1 Administration, Chapter 5, Conservation) provide for identified land uses within the subzones. As previously stated, consolidation and re-subdivision of land into an equal number of lots that does not result in increased density is an identified use within the Protective, Resource, and General subzones, provided a Departmental Permit is obtained from the DLNR. In evaluating the merits of a proposed land use, the DLNR applies the criteria listed under Section 13-5-30, HAR. This section lists the criteria relevant to the consolidation and re-subdivision of the Ko'olau Property and discusses how the proposed action complies with the criteria.

(1) The proposed land use is consistent with the purpose of the conservation district;

Discussion: According to HAR, Section 13-5-30, the purpose of the Conservation District is to "regulate land use in the conservation district for the purpose of conserving, protecting, and preserving the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety, and welfare."

The golf course was approved by the DLNR in 1987 as a permitted use. The Property has been developed as a golf course, clubhouse, and related golf facilities since 1992. No additional lots will be created and there will be no change in use as a result of the proposed action. No physical improvements are proposed.

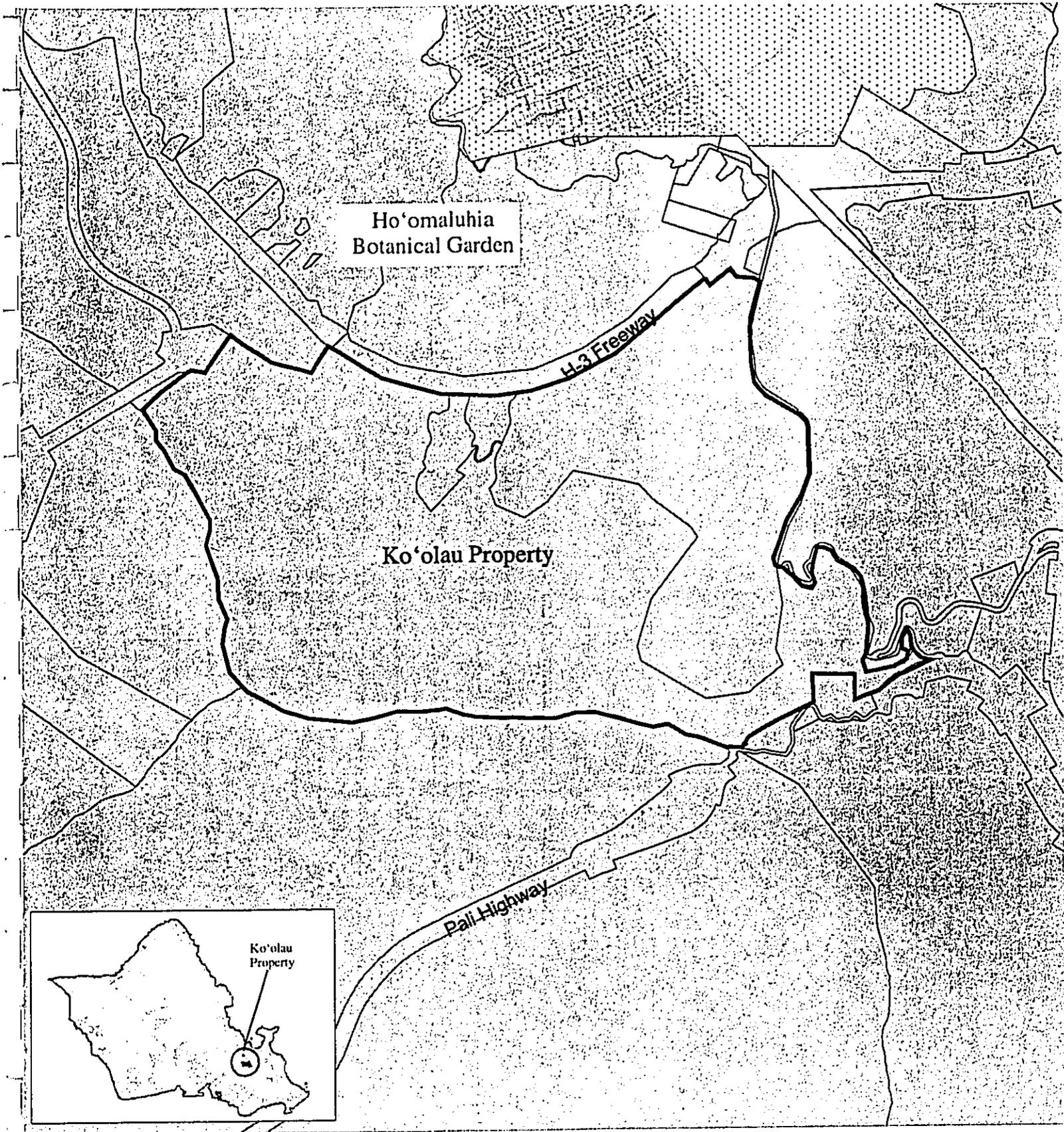
As a result of the proposed consolidation and re-subdivision, one parcel will contain all golf course-related facilities on 240.4 245.3 acres. A second parcel will be created to contain the unimproved land on 427.7 acres. Uses for the unimproved portion contained in this second parcel are not known at this time; however, the intent is to keep the area primarily in its natural, undeveloped state. Ko'olau Golf Partners is currently in discussions with a third party regarding ecotourism opportunities on the property, which may include a botanical garden and private park, guided hiking tours, and possibly other recreational activities.

Any future changes in land uses on the properties may require a separate environmental assessment or environmental impact statement in which specific effects related to the proposed land use and mitigative measures would need to be addressed.

(2) The proposed land use is consistent with the objectives of the subzone of the land on which the use will occur;

Discussion: The proposed consolidation and re-subdivision is consistent and compatible with the provisions of HAR, Section 13-5-22 and the objective of the Protective Subzone; the provisions of HAR, Section 13-5-24 and the objective of the Resource Subzone; and the provisions of HAR, Section 13-5-25 and the objective of the General Subzone.

The objective of the Protective subzone is to protect valuable resources in designated areas such as restricted watersheds; marine, plant, and wildlife sanctuaries; significant historic,



Legend

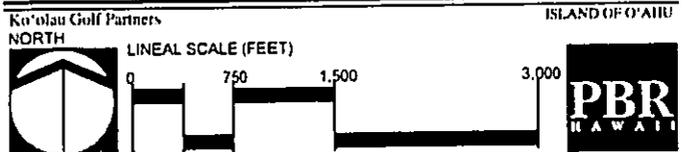
-  Ko'olau Property
-  Urban District
-  Conservation District

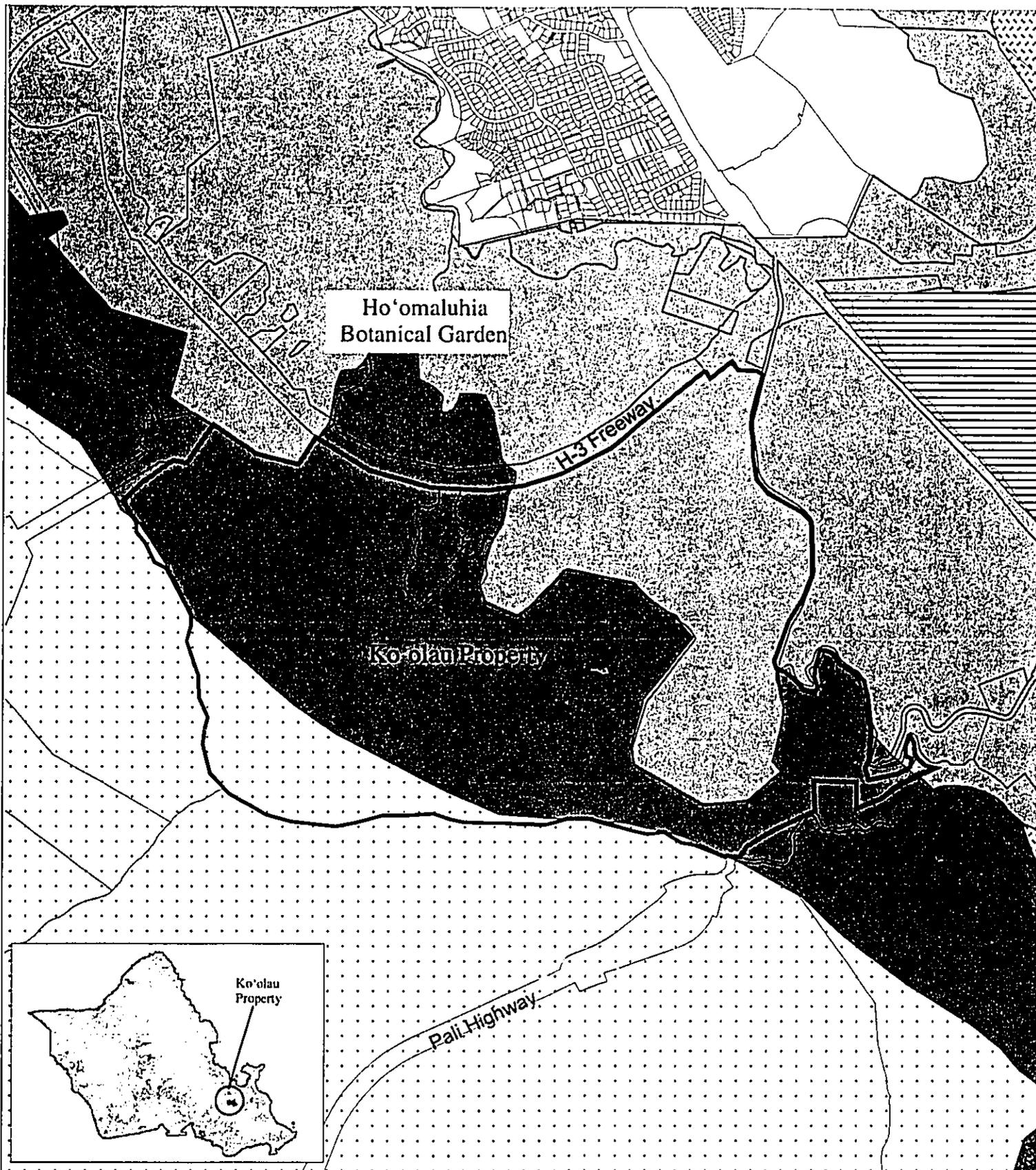
Source: State Land Use Commission

Disclaimer:
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general planning purposes only.

Figure 5
State Land Use Districts

**Ko'olau Property
Consolidation and Re-subdivision**





Legend

-  Ko'olau Property
-  General Subzone
-  Resource Subzone
-  Protective Subzone
-  Special Subzone

Source: State Department of Land & Natural Resources

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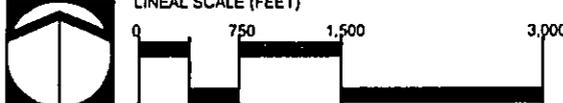
Figure 6
State Conservation District Subzones
Ko'olau Property
Consolidation and Re-subdivision

Ko'olau Golf Partners

ISLAND OF O'AHU

NORTH

LINEAL SCALE (FEET)



KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

archeological, geological, and volcanological features and sites; and other designated, unique areas.

The objective of the Resource subzone is to ensure the sustained use of natural resources within the subzone.

The objective of the General subzone is to designate open space where specific conservation uses may not be defined, but where urban uses would be premature.

The proposed consolidation and re-subdivision of land into an equal number of lots, without increasing density, is an identified use in the Protective, Resource, and General subzones. No additional lots will be created and there will be no change in use as a result of the proposed action. No physical improvements are proposed.

(3) The proposed land use complies with provisions and guidelines contained in chapter 205A, HRS, entitled "Coastal Zone Management," where applicable;

Discussion: The current land uses on the Ko'olau Property comply with the provisions and guidelines contained in Chapter 205A, HRS, entitled "Coastal Zone Management." Since the consolidation and re-subdivision of the property will not alter physical land uses, the re-subdivision will remain consistent with the provisions and guidelines of Chapter 205A.

(4) The proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community, or region;

Discussion: The proposed action will not result in a change in use on the property, and no physical improvements are proposed. Therefore, there will be no physical impacts to the existing natural resources within the surrounding area, community, and region.

(5) The proposed land use, including buildings, structures and facilities, shall be compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels.

Discussion: The physical conditions and capabilities of the specific parcels will not be impacted by the proposed action since no new buildings, structures, or facilities are proposed. With the proposed consolidation and re-subdivision of the subject property (which will not increase the existing number of lots), the golf course will remain and will continue to contribute to the open space characteristics of the locality and surrounding areas. Uses for the unimproved parcel are not known at this time; however, the intent is to keep the area primarily in its natural, undeveloped state. Ko'olau Golf Partners is currently in discussions with a third party regarding ecotourism opportunities on the property, which may include a botanical garden and private park, guided hiking tours, and possibly other recreational activities.

Any future changes in land uses on the properties may require a separate environmental assessment or environmental impact statement in which specific effects related to the proposed land use and mitigative measures would need to be addressed.

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

(6) The existing physical and environmental aspects of the land such as natural beauty and open space characteristics, will be preserved or improved upon, whichever is applicable;

Discussion: The Ko'olau Property will continue to preserve the existing physical and environmental aspects of the land. The existing golf course will remain and continue to contribute to the open space characteristics of the surrounding area. Uses for the unimproved parcel are not known at this time; however, the intent is to keep the area primarily in its natural, undeveloped state.

(7) Subdivision of land will not be utilized to increase the intensity of land uses in the conservation district; and

Discussion: No new lots will be created and there will be no change in use as a result of the proposed action. No physical improvements are proposed.

The proposed action will allow for the golf course and related structures to be located within a single parcel. This will also allow for the second parcel to contain the unimproved land that sweeps up to the top of the mountain range, near the Pali Lookout. As previously stated, uses for the unimproved parcel are not known at this time; however, the intent is to keep the area primarily in its natural, undeveloped state.

No increase in the number of lots is proposed. The two existing lots would be reconfigured to form two lots for the purpose of having the 18-hole Ko'olau Golf Course and Clubhouse and other golf course-related facilities located within one lot.

(8) The proposed land use will not be materially detrimental to the public health, safety and welfare.

Discussion: No additional lots will be created and there will be no change in use as a result of the proposed action. No physical improvements are proposed.

Consolidation and re-subdivision of land (without increasing intensity of land uses) is an identified use in the Protective, Resource, and General subzones of the Conservation District. The proposed action will be carried out in accordance with DLNR rules and regulations, and should not be detrimental to the public health, safety, and welfare.

3.2 CITY AND COUNTY OF HONOLULU

The City and County of Honolulu land use plans pertaining to the Ko'olau Property consolidation and re-subdivision are the *General Plan for the City and County of Honolulu* and the *Ko'olaupoko Sustainable Communities Plan*. The following subsections present relevant elements of these plans, accompanied with a discussion of how the re-subdivision conforms to the plans.

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

3.2.1 General Plan

As required by the City Charter, the *General Plan for the City and County of Honolulu* serves two purposes. The first is a statement of the long-range social, economic, environmental and design objectives for the general welfare and prosperity of the people of O'ahu. Second, the *General Plan* is a statement of broad policies that facilitate the attainment of the objectives of the plan. The Ko'olau Property consolidation and re-subdivision is in accordance with the following *General Plan* policies:

III. Natural Environment

Objective A: To protect and preserve the natural environment.

Policy 1: Protect O'ahu's natural environment, especially the shoreline, valley, and ridges, from incompatible development.

Policy 3: Retain the Islands' streams as scenic, aquatic, and recreation resources.

Policy 4: Require development projects to give due consideration to natural features such as slope, flood and erosion hazards, water-recharge areas, distinctive land forms, and existing vegetation.

Policy 8: Protect plants, birds, and other animals that are unique to the State of Hawai'i and the Island of O'ahu.

Objective B: To preserve and enhance the natural monuments and scenic views of O'ahu for the benefit of both residents and visitors.

Policy 1: Protect the Island's well-known resources: its mountain and craters; forests and watershed areas; marshes, rivers, and streams; shoreline, fishponds, and bays; and reefs and offshore islands.

Policy 2: Protect O'ahu's scenic views, especially those seen from highly developed and heavily traveled areas.

Discussion: The consolidation and re-subdivision of the Ko'olau Property will comply with the objective of protecting and preserving the natural environment, natural monuments, and scenic views. No land use changes are proposed; therefore, neither the natural environment nor scenic views of the mountains will be altered. Uses for the unimproved parcel are not known at this time; however, the intent is to keep the area primarily in its natural, undeveloped state.

VII. Physical Development and Urban Design

Objective E: To create and maintain attractive, meaningful, and stimulating environments throughout O'ahu.

Policy 7: Promote public and private programs to beautify the urban and rural environments.

Policy 8: Preserve and maintain beneficial open space in urbanized areas.

Discussion: The existing visual character of the Ko'olau Property will not change as a result of the consolidation and re-subdivision, as no land use changes or additional development are proposed. Uses for the unimproved parcel are not known at this time; however, the intent is to keep the area primarily in its natural, undeveloped state.

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

3.2.2 Ko'olaupoko Sustainable Communities Plan

The *Ko'olaupoko Sustainable Communities Plan* fulfills legal mandates of State law and the Charter of the City and County of Honolulu. More importantly, it provides guidance for land use regulations, the location and character of new development and facilities, and planning for County and State facilities and services. The Ko'olau Property is designated: Open Space/Preservation and Major Parks, Golf Courses, and Cemeteries & Nature Preserves on the *Ko'olaupoko Sustainable Communities Plan* map (Figure 7). The consolidation and re-subdivision of the Ko'olau Property is in conformance with relevant *Ko'olaupoko Sustainable Communities Plan* objectives and policies, as discussed below.

Chapter 2 The Vision for Ko'olaupoko's Future

Section 2.1 Vision Statement – The vision and plan for Ko'olaupoko focuses on the long-term protection of community resources and its residential character and the adoption of public improvement programs and development regulations that reflect a stable population. Key elements of the vision include the following (Section 2.2):

- *Adapt the concept of "ahupua'a" in land use and natural resource management*
- *Preserve and promote open space throughout the region*
- *Preserve and enhance scenic, recreational and cultural features that define Ko'olaupoko's sense of place*

Discussion: The existing land uses on the Ko'olau Property will not change and will continue to preserve open space throughout the region and enhance scenic and recreational features that define Ko'olaupoko's sense of place. Residential neighborhoods, the character of Ko'olaupoko, and agricultural activities will not be impacted by the consolidation and re-subdivision of the Ko'olau Property. Although, uses for the unimproved parcel are not known at this time, the intent is to keep the area primarily in its natural, undeveloped state. Ko'olau Golf Partners is currently in discussions with a third party regarding ecotourism opportunities on the property, which may include a botanical garden and private park, guided hiking tours, and possibly other recreational activities.

Any future changes in land uses on the properties may require a separate environmental assessment or environmental impact statement in which specific effects related to the proposed land use and mitigative measures would need to be addressed.

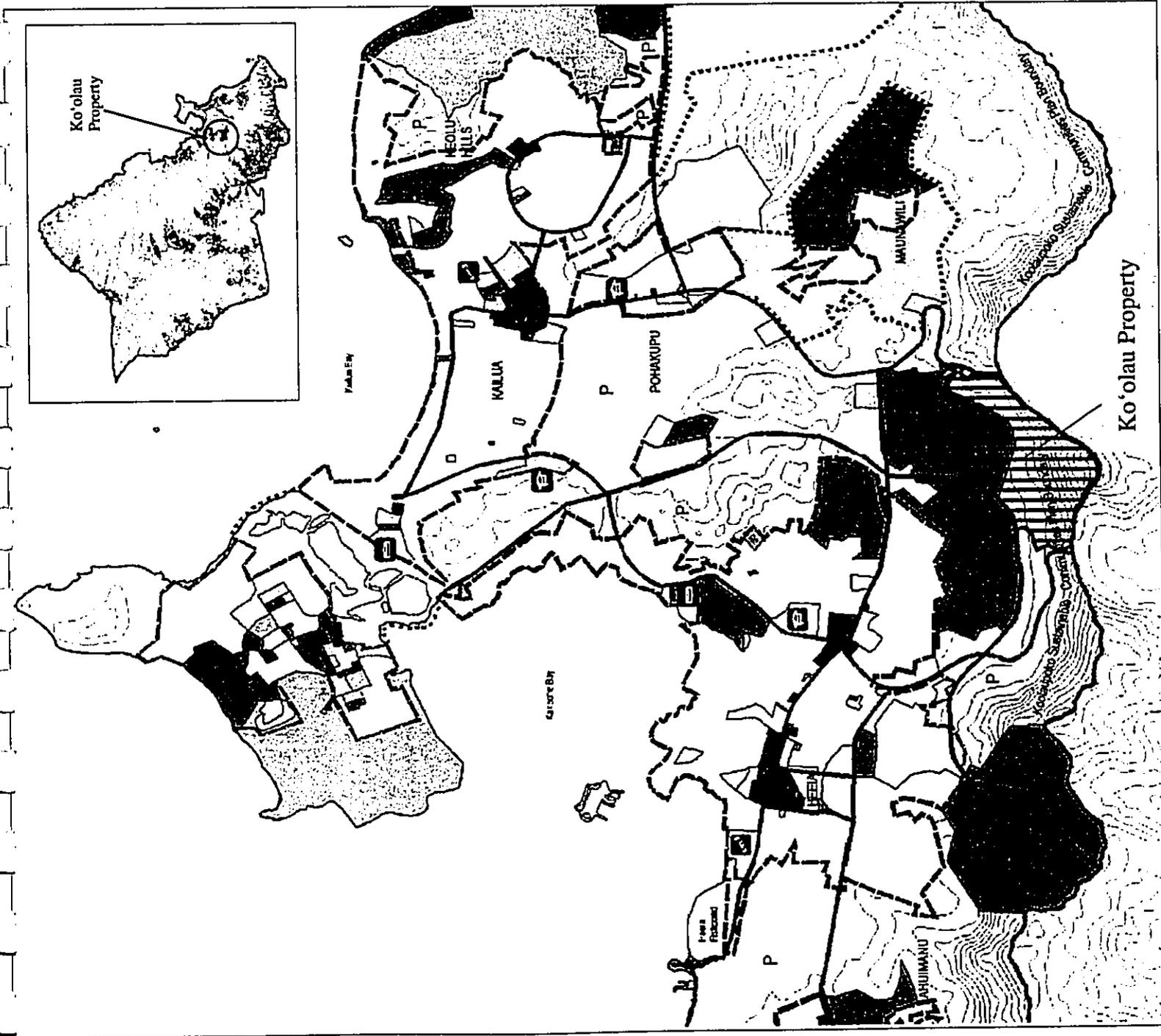
Chapter 3 Land Use Policies, Principles, and Guidelines

Section 3.1 -- Open space will be used to:

- *Protect scenic beauty and scenic views and provide recreation*
- *Create a system of linear greenways along roadways and drainage channels*

Section 3.1.3.7 – Golf courses are important elements of the open space system because they provide areas for active recreation and offer visual relief from adjacent urban uses. Golf courses have a manicured appearance, so they are not necessarily appropriate for areas where the retention of a natural, untamed landscape character is desired...the Pali, Luana Hills and Ko'olau golf courses have less value as contributors to the open space system because they are situated within or near forests with a dense canopy of trees and have altered the natural landscape character of those settings.

Section 3.2.1.2 - Golf courses are considered valuable open space and aesthetic resources and also serve a practical purpose by reducing flooding and nonpoint pollution by helping retain storm waters. However, they are highly land intensive, typically occupying 150 to 200 acres, and thus plans for future golf courses or redevelopment of existing golf courses should undergo



- Legend**
- Ko'olau Property
 - Open Space/Preservation Areas
 - Agricultural Areas
 - Major Parks, Golf Courses, Cemeteries & Nature Preserves
 - Medium Density Residential
 - Low Density Residential
 - Industrial
 - Institutional
 - Military
 - Community Commercial Centers
 - Neighborhood Commercial Centers
 - Regional Town Centers
 - Urban Community Boundary
 - Rural Community Boundary
 - Agriculture/Open Space/Preservation Boundary
 - Freeways, Highways & Major Roads
 - High School (State)
 - Intermediate School (State)
 - Wastewater Treatment Plant

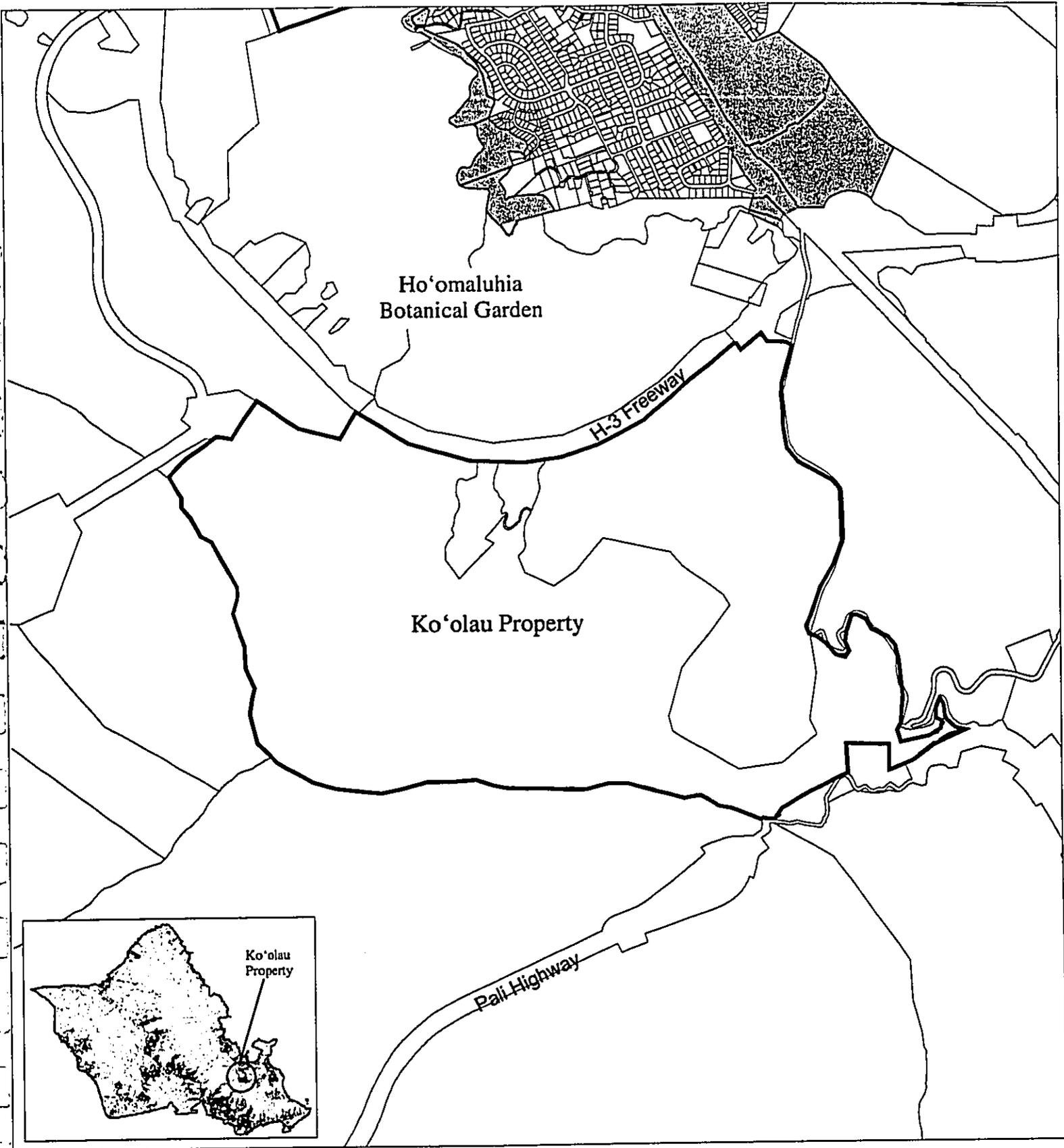
Figure 7
Sustainable Communities Plan
Ko'olau Property
Consolidation and Re-Subdivision

Ko'olau Golf Partners
ISLAND OF O'AHU
NORTH

LINEAL SCALE (FEET)
0 3,000 6,000

PBR
HAWAII

Source: KO'OLAUPOKO Sustainable Communities Plan



Legend

- | | |
|------------------------|-----------------|
| Ko'olau Property | I-2 Intensive |
| R-10 Residential | AG-1 Restricted |
| R-7.5 Residentail | AG-2 General |
| R-5 Residential | Country |
| A-2 Apartment | P-1 Restricted |
| B-2 Community Business | P-2 General |

Source: The City & County of Honolulu

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general planning purposes only.

Figure 8
Zoning Map

**Ko'olau Property
Consolidation and Re-subdivision**

Ko'olau Golf Partners ISLAND OF O'AHU

NORTH

LINEAL SCALE (FEET)

0 750 1,500 3,000

PBR
HAWAII

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

careful evaluation. Depending on the location, design, and pricing of greens fees and/or memberships, new course development could have significant environmental, economic, and social impacts. Furthermore, Ko'olaupoko is mostly built-out and land areas that could possibly accommodate a new golf course are either in preservation or long-term agricultural use. Consequently, this plan does not propose development of additional golf courses in the Ko'olaupoko region or the continuation of land use and other development entitlements for proposed golf courses that had not been built as of the end of 1998.

Discussion: After consolidation and re-subdivision, the Ko'olau Property will continue to preserve open space, protect scenic views, and provide recreation, as no land use changes or re-development are proposed. Although the plan states that the Ko'olau Golf Course and other golf courses have less value as contributors to the open space system than natural landscapes, nonetheless, the Ko'olau Golf Course protects scenic beauty and views, and provides recreation.

Uses for the unimproved parcel are not known at this time; however, the intent is to keep the area primarily in its natural, undeveloped state. Ko'olau Golf Partners is currently in discussions with a third party regarding ecotourism opportunities on the property, which may include a botanical garden and private park, guided hiking tours, and possibly other recreational activities.

Any future changes in land uses on the properties may require a separate environmental assessment or environmental impact statement in which specific effects related to the proposed land use and mitigative measures would need to be addressed.

3.2.3 City and County of Honolulu Zoning

The City and County of Honolulu's zoning designations for the entire Ko'olau Property are primarily P-1 Restricted Preservation (Figure 8), which is consistent with the State Land Use Conservation District designation. According to the City and County of Honolulu's Land Use Ordinance (LUO), all uses, structures, and development standards within the P-1 Restricted Preservation district shall be governed by the appropriate State agencies. Properties within the State Land Use Conservation District boundaries are governed by the DLNR Office of Conservation and Coastal Lands.

3.2.4 Special Management Area

The Ko'olau Property is not within the Special Management Area (SMA) of the City and County of Honolulu.

3.3 APPROVALS AND PERMITS

An approximate list of permits and approvals required for the consolidation and re-subdivision of the Ko'olau Property is presented below.

**KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment**

Table 1. Required Permits and Approvals

Permit/Approval	Responsible Agency
Chapter 343, HRS compliance	Department of Land and Natural Resources Office of Environmental Quality Control
Conservation District Use Departmental Permit	Department of Land and Natural Resources Office of Conservation and Coastal Lands
Subdivision Approval	Department of Land and Natural Resources

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

4.0 DESCRIPTION OF THE NATURAL ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES

This chapter describes the physical environment of the Ko'olau Property. Since the re-subdivision is technically a legal procedure to demarcate the boundaries of the property on a subdivision map, and because no physical land use changes are proposed, the subdivision will not generate new physical effects or impacts on the Ko'olau Property. Thus, there are no findings of significant impacts, and no mitigative strategies are warranted. Any future changes in land uses on the property may require a separate environmental assessment or environmental impact statement in which specific impacts related to the future proposed land use and mitigative measures would need to be addressed.

4.1 CLIMATIC CONDITIONS

The climate of the Kaneohe region is characterized by high annual rainfall and relatively strong northeasterly trade winds. Temperatures are typically between 68 to 80 degrees Fahrenheit, with a mean annual temperature of 74 degrees. On occasion, temperatures can reach as high as 90 degrees Fahrenheit or as low as 58 degrees Fahrenheit. Rainfall ranges from 75 to 100 inches annually (generally increasing from approximately 50 inches near the coast to 100 inches near the crest of the Ko'olau Range), with 50 percent of the annual rainfall occurring between the months of November and March.

Potential Impacts and Mitigative Measures

The consolidation and re-subdivision of the Ko'olau Property will have no effect on climatic conditions in the area or region. No mitigative strategies are warranted.

4.2 TOPOGRAPHY AND GEOLOGY

The elevation of the subject property ranges between 300 feet to 2,700 feet (mountain ridge) above mean sea level. Slopes range between zero percent to greater than 40 percent. Most of the Ko'olau Golf Course and Clubhouse area is between zero to 20 percent slopes, with some intermittent ridges and valleys modifying these slopes.

The Ko'olau Volcanic Series initially created the land of the Ko'olau Property, which is of basaltic origin. Since its creation, the terrain has been altered through sedimentation and erosion processes, resulting in an underlayer of alluvium.

Potential Impacts and Mitigative Measures

No impacts to the geology or topography will occur as a result of the Ko'olau Property consolidation and re-subdivision process. Therefore, no mitigative measures are planned. Any future changes in land use on the property may require a separate environmental assessment or environmental impact statement in which specific effects related to the proposed land use and mitigative measures would need to be addressed.

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

4.3 SOILS AND DRAINAGE

Three soil suitability studies are available for State lands. The main focus of all of these studies has been to describe the physical attributes of State lands and the relative productivity of different land types for agricultural production purposes.

Natural Resources Conservation Service. The U.S. Department of Agriculture Natural Resources Conservation Service (USDA NRCS), *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai*, classifies soils of the Ko'olau Property into three series, further classified into nine distinct soil types (Figure 9).

The *Lolekaa Series* consists of five different soil types on this property. These soils are located on terraces and alluvial fans, tend to be well-drained, and vary in slope (as indicated below). Lolekaa soils are formed in old colluvium and alluvium, and consist of a surface layer of dark reddish brown silty clay, with a lower layer of dark yellowish brown loam. The erosion potential ranges from low to very high for these soils (depending on the slope), which may be problematic if they are cultivated. Uses include home development, pastures, orchards and truck crops.

Lolekaa silty clay, 3-8% slopes (LoB): These soils are well-drained and have a slight potential erosion hazard rating. Permeability is moderately rapid and runoff is slow.

Lolekaa silty clay, 8-15% slopes (LoC): These soils are well-drained and have a moderate potential erosion hazard rating. Permeability is moderately rapid and runoff is moderate.

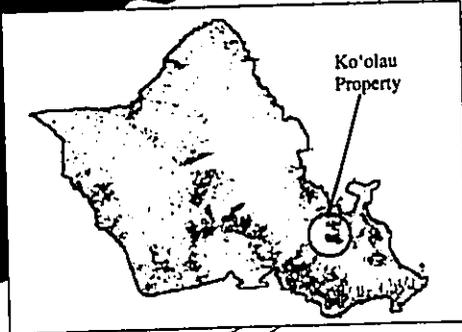
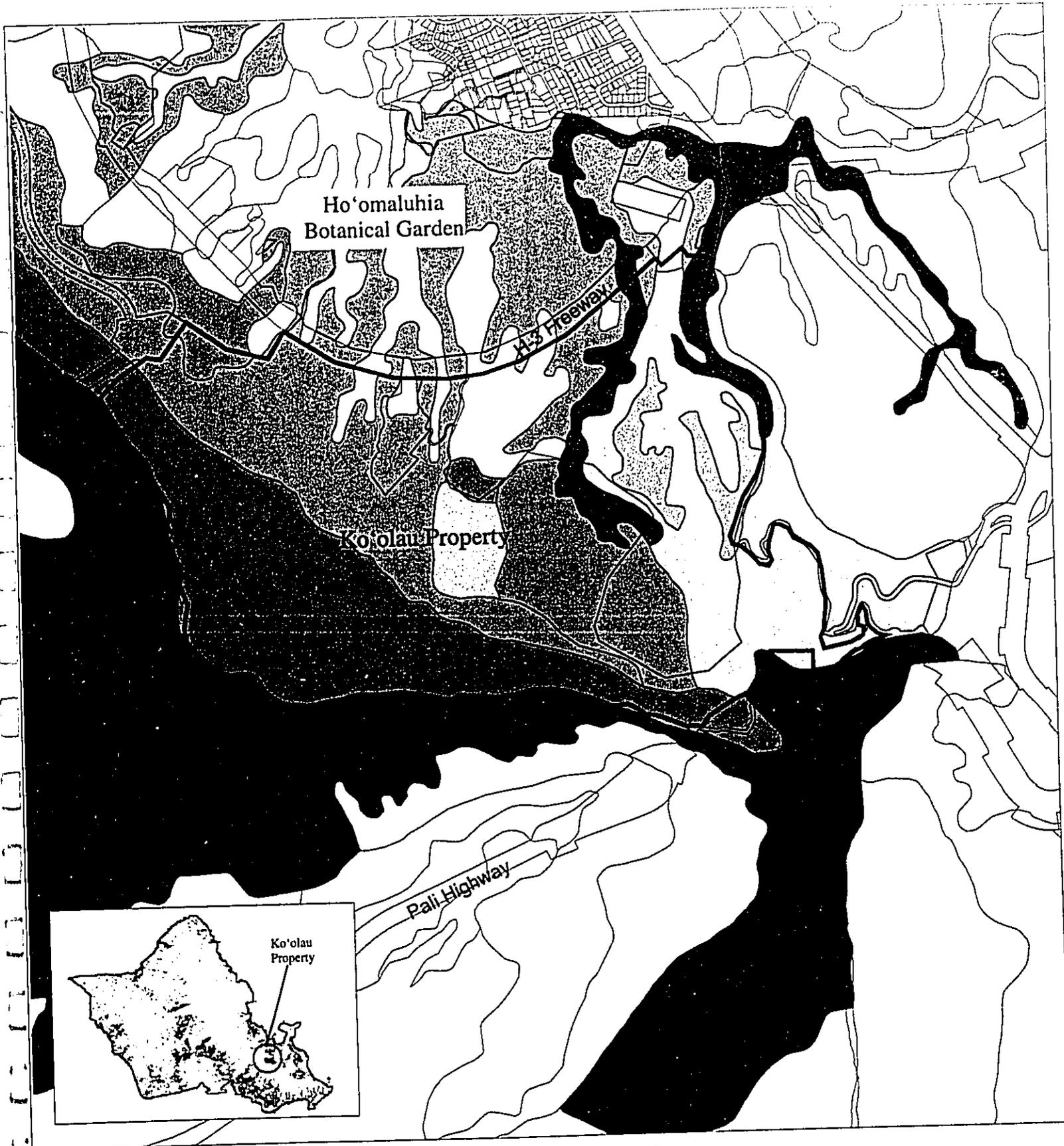
Lolekaa silty clay, 15-25% slopes (LoD): These soils are well-drained and have a moderate potential erosion hazard rating. Permeability is moderately rapid and runoff is medium.

Lolekaa silty clay, 25-40% slopes (LoE): These soils are well-drained and have a severe potential erosion hazard rating. Permeability is moderately rapid and runoff is medium to rapid.

Lolekaa silty clay, 40-70% slopes (LoF): These soils are well-drained and have a very severe potential erosion hazard rating. Permeability is moderately rapid and runoff is rapid.

The *Hanalei series* consists of two different soil types on this property. Hanalei soils are somewhat poorly drained, and are located on stream bottoms and flood plains. They develop in alluvium derived from basic igneous rock. The surface layer is usually dark gray silty clay that has dark brown and reddish mottles. The lower layer is mottled gray and brown silty clay loam. These soils are generally used for pasture and cultivation. They occur on nearly level to very gentle slopes and are described below.

Hanalei silty clay, 0-2% slopes (HnA): These soils are poorly drained and have a slight potential erosion hazard rating. Permeability is moderate, runoff is very slow, and the soils are subject to frequent flooding.



Legend

- Ko'olau Property
- Hanalei Silty Clay, 0 to 2 Percent Slopes
- Hanalei Silty Clay, 2 to 6 Percent Slopes
- Kāne'ohe Silty Clay, 3 to 8 Percent Slopes
- Kāne'ohe Silty Clay, 30 to 65 Percent Slopes
- Lolekaa Silty Clay, 15 to 25 Percent Slopes
- Lolekaa Silty Clay, 25 to 40 Percent Slopes
- Lolekaa Silty Clay, 3 to 8 Percent Slopes
- Lolekaa Silty Clay, 40 to 70 Percent Slopes
- Lolekaa Silty Clay, 8 to 15 Percent Slopes
- Rock Land
- Rock Outcrop

Source: U.S. Department of Agriculture Natural Resources Conservation Service

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Figure 9
Natural Resources Conservation Service

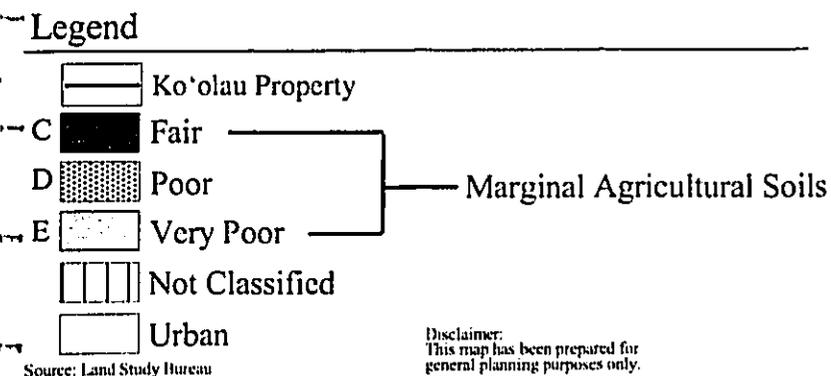
**Ko'olau Property
Consolidation and Re-subdivision**

Ko'olau Golf Partners
ISLAND OF O'AHU

NORTH

LINEAL SCALE (FEET)

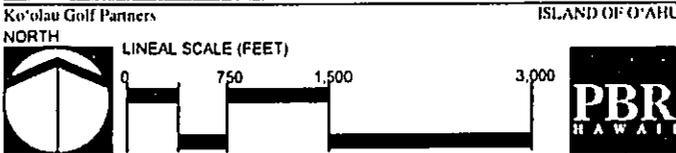
0 750 1,500 3,000

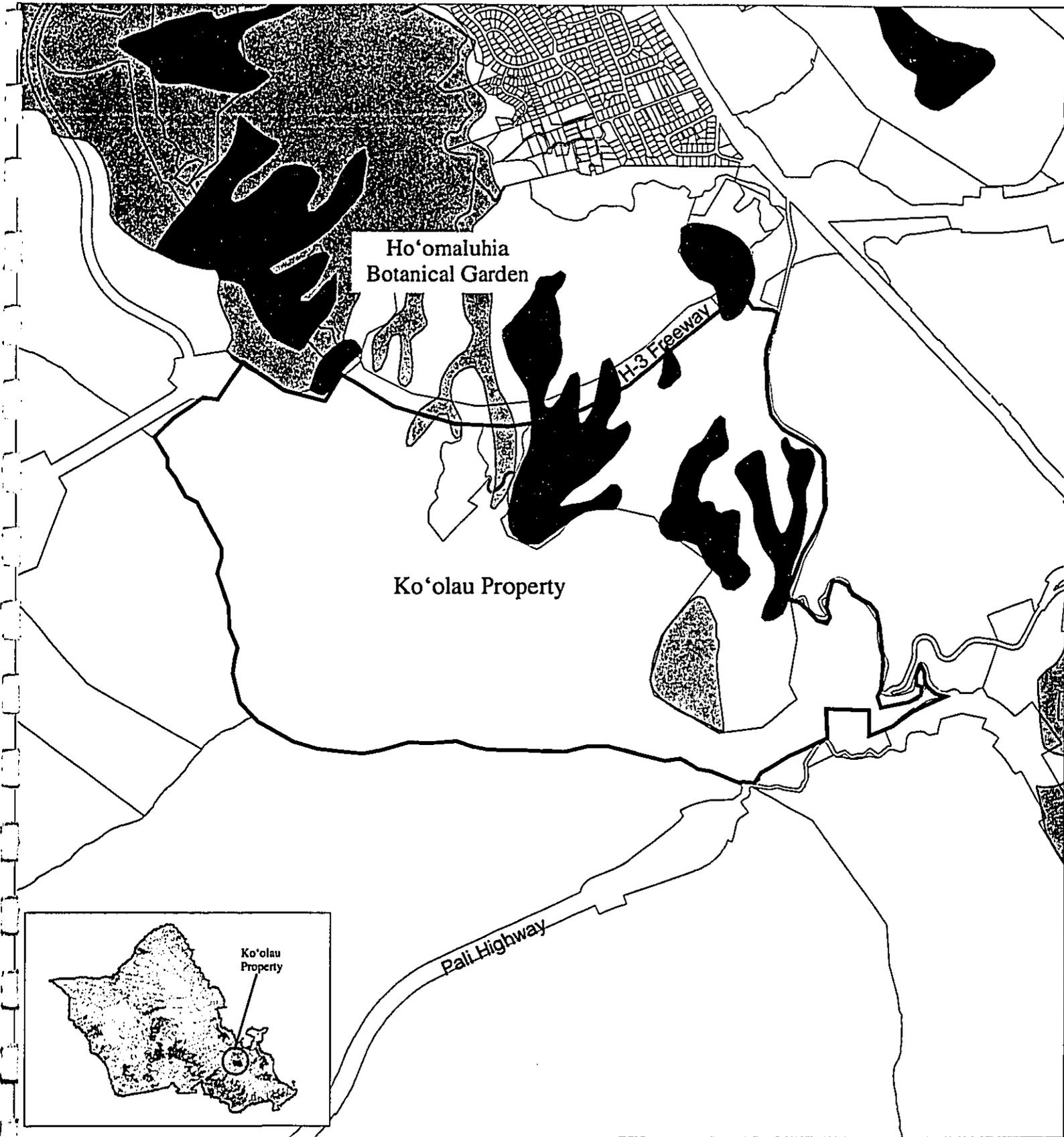


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Figure 10
Detailed Land Classification

**Ko'olau Property
Consolidation and Re-subdivision**





Legend

-  Ko'olau Property
-  Prime Agricultural Land
-  Other Important Agricultural Land
-  Not Classified

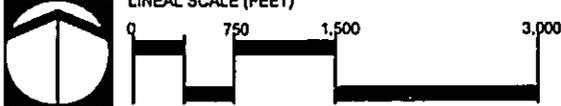
Source: State of Hawaii Department of Agriculture
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 general planning purposes only.

Figure 11
 Agricultural Lands of Importance to
 the State of Hawaii (ALISH)

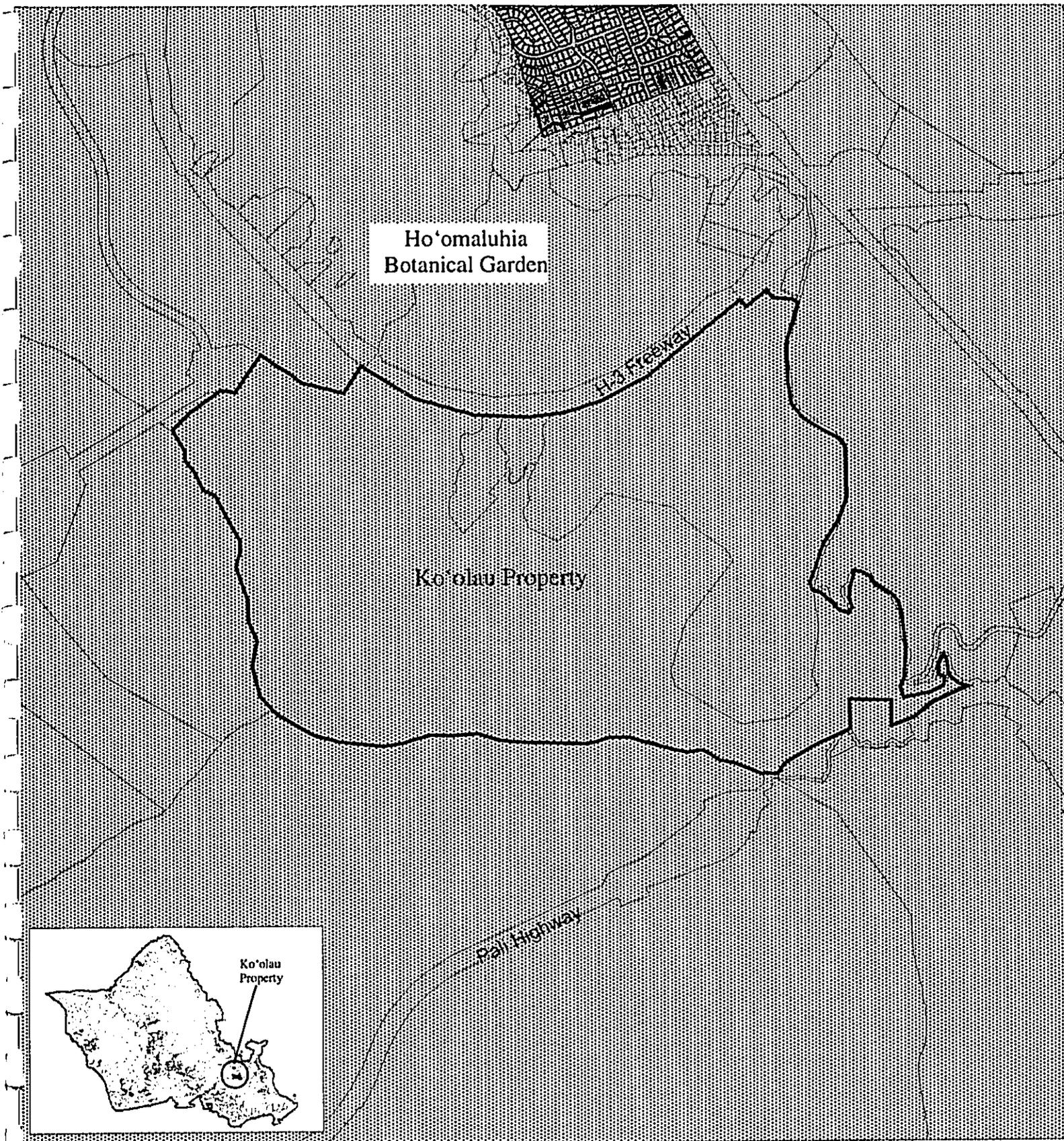
**Ko'olau Property
 Consolidation and Re-subdivision**

Ko'olau Golf Partners ISLAND OF O'AHU
 NORTH

LINEAL SCALE (FEET)







Legend

-  Ko'olau Property
-  ZONE X:
Areas Determined To Be Outside 500-Year Floodplain
-  ZONE D:
Areas in Which Flood Hazards Are Undetermined

Source: Federal Emergency Management Agency
 Disclaimer: This map has been prepared for general planning purposes only.

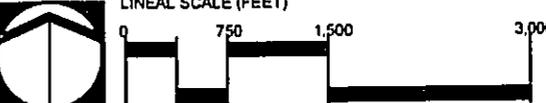
Figure 12
 Flood Insurance Rate Map (FIRM)

**Ko'olau Property
 Consolidation and Re-subdivision**

Ko'olau Golf Partners ISLAND OF O'AHU

NORTH

LINEAL SCALE (FEET)



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KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

Hanalei silty clay, 2-6% slopes (HnB): These soils are also poorly drained and have a slight potential erosion hazard rating. Permeability is moderate, runoff is very slow, and the soils are subject to frequent flooding.

The *Kāne'ohē series* consists of two different soil types in this property. They are well-drained soils on terraces and alluvial fans. The soils developed on alluvium and colluvium derived from basic igneous rock. The surface layer of soil consists of dark reddish brown silty clay while the underlayer consists of dusky red and dark red silty clay. These soils are generally used for urban and domestic development and pastures.

Kāne'ohē silty clay, 3-8% slopes (KgB): These soils are well-drained and have a slight potential erosion hazard rating. Permeability is moderately rapid and runoff is slow to medium.

Kāne'ohē silty clay, 30-65% slopes (KHOF): These soils are well-drained and have a severe potential erosion hazard rating. Permeability is moderately rapid and runoff is medium to rapid.

Detailed Land Classification. The University of Hawai'i Land Study Bureau *Detailed Land Classification* uses a scale to rate lands in terms of their productivity. A five-class productivity rating is applied using the letters A, B, C, D, and E, with A representing the class of highest productivity and E the lowest. According to this system, the lands of the Ko'olau Property are primarily rated E (very poor), with some occasional sections of land rated C (fair), reflecting the low productivity of the land (Figure 10).

Agricultural Lands of Importance to the State of Hawai'i. According to the State of Hawai'i Department of Agriculture's *Agricultural Lands of Importance to the State of Hawaii* (ALISH) system, the lands of the Ko'olau Property are primarily Not Classified, although small sections of Prime Agricultural Land and Other Agricultural Land are present on the property (Figure 11).

Prime Agricultural Land is land best suited for the production of food, feed, forage, and fiber crops. The land has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed, including water management, according to modern farming methods.

Other Agricultural Land is land other than Prime or Unique Agricultural Land that is also of statewide or local importance for the production of food, feed, fiber, and forage crops. The lands in this classification are important to agriculture in Hawai'i, yet they exhibit properties such as seasonal wetness, erosion, limited rooting zone, slope, flooding, or drought, which exclude them from the Prime or Unique Agricultural Land classifications. These lands can be farmed satisfactorily (i.e., by applying greater inputs of fertilizer and other soil amendments, constructing drainage improvements, and implementing erosion control practices and flood protection measures) and produce fair to good crop yields when managed properly.

Drainage. Natural drainage features of the Ko'olau Property are defined primarily by the stream systems intersecting the land. The stream-fed headwaters of Kamo'oali'i Stream originate at approximately the 2,500-foot elevation, providing natural drainage to the Ko'olau Property. Five tributaries converge upland of the Property into Kamo'oali'i Stream, and steep terrain on this

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

land means that stream flow can quickly become torrential in response to high precipitation events, after the ground has become saturated.

Potential Impacts and Mitigative Measures

The consolidation and re-subdivision will have no impact on soil conditions or drainage patterns in the area. Therefore, no mitigative measures are proposed.

4.4 NATURAL HAZARDS

Natural hazards affecting the Hawaiian Islands include hurricanes, volcanic eruptions, earthquakes, and flooding. The Kāne'ohe region has a long history of intense rainstorms and heavy floods. According to the Flood Insurance Rate Map (FIRM) for the region (prepared by the Federal Emergency Management Agency, or FEMA), land in the Ko'olau Property is classified as Zone D, areas in which flood hazards are undetermined (Figure 12).

Currently, recognized volcanic threats pertain primarily to the Big Island, and to a lesser extent, Maui. The volcanic threat is considered to be low for the area of the Ko'olau Property, based on the assumption that a lack of recent volcanic activity can be used as a reasonable indication of the level of danger.

Most earthquake activity in the State of Hawai'i is associated with volcanic, rather than tectonic, activity. Thousands of small earthquakes occur throughout the Hawaiian Islands each year, and in the past, more severe earthquakes have impacted the island chain.

Two major hurricanes have impacted the Hawaiian Islands within the last 25 years. Hurricane 'Iwa struck in 1982 while Hurricane 'Iniki struck in 1992; both events were centered on the island of Kaua'i. The future impact of hurricane events on the Ko'olau Property is difficult to predict; however, it seems likely that future events will occur. The likelihood of torrential rains and destructive winds from hurricanes on the Ko'olau Property is unknown, but their occurrence is possible.

Potential Impacts and Mitigative Measures

Because no change in land use is proposed, the re-subdivision will not present or exacerbate any hazard condition. No mitigative measures are planned or warranted at this time.

4.5 FLORA

No rare or endangered plants were found when studies were conducted for the 1987 Conservation District Use Application (CDUA) permit process for the golf course development. The construction of the Ko'olau Golf Course has modified much of the lower elevation area. The dominant vegetation is now the *Seashore paspalum* turf used for the golf greens. Previous surveys of the flora and vegetation types of the Ko'olau Property were summarized as part of the *Golf Course on Iolani School Property Final Environmental Impact Statement* (DHM 1987), and were submitted by Winona P. Char based on a combination of literature searches and field

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

surveys. The vegetation of the property prior to the construction of the Ko'olau Golf Course was summarized as consisting largely of introduced species with scattered native species. The flora surveys reported an abundance of vegetation types, with five introduced species forming most of the vegetation. The following vegetation types were described:

Mixed Forests: Common species include Java plum, rose apple, African tulip, Octopus tree, *kukui*, mango, basketgrass, wood ferns, *hau* and *hala*.

Grassland: California grass, broomsedge, molassesgrass, Glenwoodgrass, Hilo grass, swordfern, Java plum, Asiatic pennywort and *kyllinga*.

Open Scrub: *Uluhe* fern, broomsedge, rice grass, strawberry guava, guava, Java plum, Christmas berry, *hala*, *ohia*, *akia* and *neneleau*.

Farmland: Foliage and flower crops – *ti* leaf, red ginger, also some weedy species.

Potential Impacts and Mitigative Measures

The proposed action will not impact the existing flora. No physical improvements are proposed, and no mitigative measures are warranted.

4.6 FAUNA

Previous fauna surveys of the Ko'olau Property were summarized as part of the 1987 CDUA permit and Environmental Impact Statement (EIS) for the existing golf course (DHM 1987). No endangered birds or mammals were found on the Ko'olau Property or in adjacent areas.

According to a previous fauna survey (1987), approximately 50 species of introduced birds have established breeding populations in the Hawaiian Islands. Introduced birds reported to be present in the study area and in the adjacent Ho'omaluhia Botanical Garden are: cattle egret, spotted dove, zebra dove, barn owl, melodious laughing thrush, red-vented bulbul, Shama thrush, Japanese bush warbler, Japanese white-eye, common Indian Myna, Spotted Munia, House Sparrow, Cardinal, and House Finch. Two indigenous birds were reported from the study area and its surrounding lands: the Pacific Golden Plover and the Black-Crowned Night Heron.

Land mammals sighted in the Ko'olau Property included: the Black Rat, the Hawaiian Rat, feral cats, feral dogs, feral pigs, the House Mouse, and the small Indian Mongoose. Surveys of aquatic fauna in Kamo'oali'i Stream indicated that approximately three years after the construction of the Ho'omaluhia flood control dam, Kamo'oali'i Stream contained abundant populations of tilapia, guppies, mollies, Tahitian prawns, and crayfish, as well as mosquitofish and swordtails, while the only native species remaining in the stream was *Awaous guamensis* (City and County of Honolulu, Department of Water Supply 1984).

Prior to the construction of the dam in 1979, other fauna were noted in the Kamo'oali'i Stream, including atyid shrimp, *Stenogobius Hawai'iensis*, and *Macrobrachium grandimanus*. The DLNR Division of Aquatic Resources has no recent survey data for the Kamo'oali'i Stream and

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

flood control reservoir. Toads (*Bufo marinus*) and frogs (*Rana castebiana*) were also noted in the area, as well as one pond snail (*Melanoides* sp.).

Potential Impacts and Mitigative Measures

The proposed action will not impact the existing fauna. No physical improvements are proposed. No mitigative measures are proposed.

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

5.0 ASSESSMENT OF EXISTING HUMAN ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES

5.1 ARCHAEOLOGICAL AND HISTORIC RESOURCES

An archeological field survey of the property was previously conducted for the EIS prior to development of the existing Ko'olau Golf Course (DHM 1987). The historical study provided no evidence suggestive of the parcel's importance for habitation, agriculture, or other activities by traditional Hawaiian communities. The earliest significant use of the parcel occurred in the early 1900s, when commercial activities developed. Between 1912 and 1914, a pineapple plantation was started. Another portion of the area was used for grazing dairy cattle. Truck farming was also documented in the 1920s.

The archaeological field survey was concentrated in the areas least disturbed by previous agricultural practices, which were primarily confined to the gullies, riverine areas, and portions along the upper elevation margins. Four possible archaeological sites were identified: a small terrace complex, two charcoal kilns or seepage wells, a habitation complex, and a rock wall (Figure 13). The previous EIS (DHM 1987) concluded that the sites appeared to have very little value for public education or display purposes, or cultural or religious significance. However, the golf course was designed around all the sites and there was coordination with the State Historic Preservation Office during the design process.

Potential Impacts and Mitigative Measures

The proposed consolidation and re-subdivision will not impact archaeological and historic resources. No mitigative measures are warranted or proposed since no changes are proposed to existing land use. However, Ko'olau Golf Partners will comply with all State and County laws and rules regarding the preservation of cultural and historic sites.

5.2 CULTURAL RESOURCES

Kāne'ohe is a complicated terrace area, comprehended by its stream system. Between hills, the flatlands of Kāne'ohe are broken up into chains of pockets connecting along stream channels. The Ko'olaupoko's landscape includes many vestiges of its cultural past, such as ancient fishponds fronting Kāne'ohe Bay, terraces for the cultivation of taro, several heiau and other sacred sites, and various remains of pre-historic habitation.

Review of historical data (DHM 1987) concludes that the Ko'olau Property was never heavily populated. Apparently, a hala grove once existed on the Property in the pre-contact period. Early historic documents mention this grove and also indicate that at least one house site may have been located in the vicinity.

During the Mahele of 1848, Queen Kalama, wife of Kamehameha III, was awarded title to the ahupua'a of Kāne'ohe and Kailua, including a major portion of the Ko'olau Property. In 1867, the Queen and C. C. Harris established the Kaneohe Plantation to raise sugarcane; however, due to the irregular topography, it is unlikely that the Ko'olau Property was used for sugar

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

production. After the Queen's death in 1870, C. C. Harris purchased the land from the heir, Charles Kanaina. Upon Harris' death in 1881, his daughter, Nannie R. Rice, inherited his lands and continued to purchase land within the area.

In 1917, Harold K. L. Castle purchased a large number of land parcels from Mrs. Rice including the Ko'olau Property. From this time, the land served various purposes: pineapple cultivation, dairy cattle grazing, and military camp. In 1974, following the death of H.K.L. Castle, the Ko'olau Property area and other parcels were donated to Iolani School. In 1987, Iolani School sold the Ko'olau Property to Nitto Kogyo Company Ltd., who developed the golf course. Ko'olau Golf Partners acquired the property in 2003.

Potential Impacts and Mitigative Measures

The proposed action will not impact cultural resources. No physical improvements are proposed. No mitigative measures are proposed. Ko'olau Golf Partners will comply with all State and County laws and rules regarding the preservation of cultural resources should any be discovered in the future.

5.3 TRAILS AND RECREATION

No State-recognized/supported hiking trails are located within the Ko'olau Property. However, the unofficial and unsigned "Likeke Trail" traverses the property at the bottom of the Ko'olau Mountain Range, spanning between the Pali and Likelike Highways (Ball 2000). There are also other unofficial and unsigned hiking trails scattered throughout the unimproved portion of the Property leading up to a waterfall mauka of the golf course.

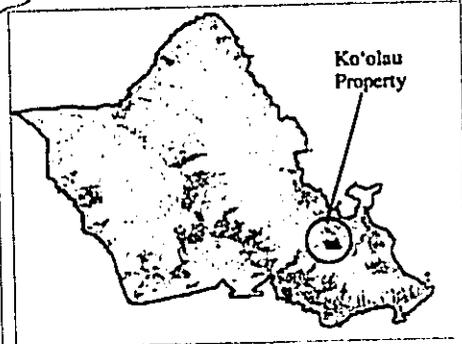
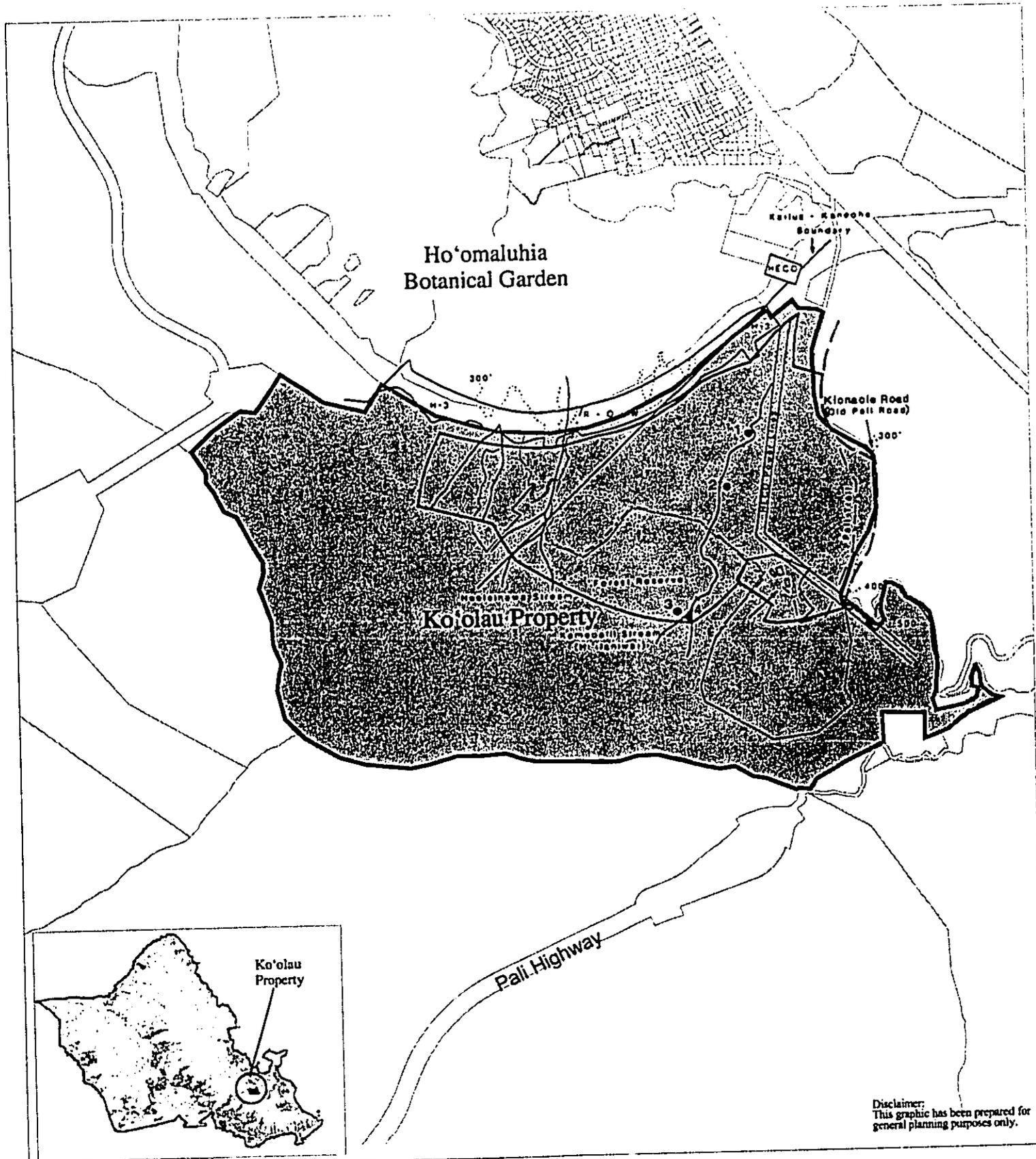
The Ko'olau Golf Course, built in 1992, operates as a golf course and membership recreational facility. Current trails located on the property are affiliated with and maintained by the golf course. The clubhouse includes a swimming pool, tennis courts, a day-spa, and a ballroom with the capability to host weddings, receptions, corporate outings, business meetings, and banquets.

Potential Impacts and Mitigative Measures

The proposed consolidation and re-subdivision will not impact the Ko'olau Golf Course and Clubhouse or any trails or recreation areas. Access to the Ko'olau Property will not change due to the re-subdivision, and no mitigative measures are warranted.

5.4 ROADWAYS AND TRAFFIC

Entrance to the Ko'olau Golf Course is off Kionaole Road, accessed from Kamehameha Highway. The property is bordered to the north by Interstate Highway H-3, to the west by Likelike Highway. Another major roadway near the Ko'olau Property is Pali Highway to the south. Traffic can be heavy on all the highways during peak rush hour times, however, unrelated to the golf course.



Disclaimer:
This graphic has been prepared for
general planning purposes only.

- Legend**
- Ko'olau Property
 - Kanohe Forest Reserve
 - Elevation Contour
 - Archaeological Sites
 - 1 ● 50-80-10-2938 : Terrace Complex
 - 2 ● 50-80-10-2939 : Two Charcoal Kilns or Seepage Wells
 - 3 ● 50-80-10-2940 : Habitation Complex
 - 4 ● 50-80-10-2941 : Rock Wall

Figure 13
Archaeological Site Locations
Ko'olau Property
Consolidation and Re-subdivision

Ko'olau Golf Partners
ISLAND OF O'AHU

NORTH

LINEAL SCALE (FEET)

0 750 1,500 3,000

Source: DHM, Inc. (1987) Final environmental Impact Statement for Golfcourse on Iolani School Property

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

Potential Impacts and Mitigative Measures

The proposed consolidation and re-subdivision of the Ko'olau Property will not change existing roadways or traffic patterns. Access to the Ko'olau Property will not change due to the re-subdivision, and no mitigative measures are warranted.

5.5 NOISE

Ambient noise levels in the Ko'olau Property are low, with primary sources being traffic along Kionaole Road and users of the Ko'olau Golf Club facilities. Occasional aircraft from the Kaneohe Marine Corps Station may also contribute to noise levels.

Potential Impacts and Mitigative Measures

The proposed action will not affect ambient noise levels in the area. No mitigative measures are planned or warranted.

5.6 AIR QUALITY

Air quality in the State of Hawai'i is generally excellent due to the predominant northeast trade winds. No "non-attainment" areas are present in the State according to the Environmental Protection Agency (EPA). Non-attainment areas are defined as localities where air pollution levels persistently exceed National Ambient Air Quality Standards. Since there are no non-attainment sites in Hawai'i, the entire State is considered by the EPA to be in attainment for all criteria pollutants. Aside from this, however, localized air quality can be affected by regional and local climate differences and human sources.

Potential Impacts and Mitigative Measures

The consolidation and re-subdivision process will not affect air quality in the area. No mitigative measures are planned or warranted at this time.

5.7 VISUAL RESOURCES

The Ko'olau Property is visible from the Pali Lookout in Nu'uuanu State Park, and can occasionally be viewed from vehicles on the Pali and Likelike Highways through vegetation at highway speeds. For the most part, the Ko'olau Property is not visible from Kamehameha Highway, from the Pali Golf Course or from Ho'omaluhia Botanical Garden. Scenic views from the Ko'olau Property include the Ko'olau Mountain ridge-line and Kāne'ohe Bay.

Potential Impacts and Mitigative Measures

The proposed action will not affect visual or scenic resources because no physical improvements are proposed. As such, no mitigative strategies are planned or warranted. The consolidation and re-subdivision will not cause any visual impacts on any individual or the community.

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

The proposed action will preserve visual resources since the intent is to keep the condition of the unimproved parcel primarily in its natural, undeveloped state.

5.8 SOCIAL AND DEMOGRAPHIC CHARACTERISTICS

The Kāne'ohe region is a significant center of residence and recreation for the island of O'ahu. Recreational amenities in the area include several campgrounds, golf courses, and State parks. The Ko'olau Golf Club and golf course is used as a recreational facility by members of the Club and their guests. In addition to an 18-hole golf course, the Club operates a fully-equipped Clubhouse with dining facilities, swimming pool, and tennis courts.

The City and County of Honolulu's population, according to the 2000 census, was 876,156 people, with the Ko'olaupoko district accounting for approximately 13 percent of these residents. Population change in Ko'olaupoko since 1990 was very slight, resulting in a net increase of only 300 residents over the 10-year period (0.3 percent growth). The age distribution for Kāne'ohe is very close to that for the City and County of Honolulu, and is dominated by the 25 to 44-year-old age group (29 percent) followed by the 45 to 64-year-old age group (23.4 percent), the under 15 age group (19.8 percent), 65 and older age group (14.7 percent), and finally the 16 to 24-year-old group (13 percent). Ethnically, the Ko'olaupoko is very diverse, but differs slightly from the City and County of Honolulu's ethnic distribution in that Asians (38.5 percent) and whites (20.5 percent) account for slightly less of the overall total of the population, while mixed race individuals (27.9 percent) account for a larger proportion. Native Hawaiians and Pacific Islanders comprise 11.4 percent of the population and Hispanic or Latino individuals account for 7.2 percent. Most Kāne'ohe residents (73.8 percent) were born in the State of Hawai'i, which contrasts to 56.9 percent for all residents of Hawai'i.

Potential Impacts and Mitigative Measures

The consolidation and re-subdivision of the Ko'olau Property will not affect the social or demographic characteristics of the area. No mitigative strategies are planned or warranted.

5.9 ECONOMIC CHARACTERISTICS

The Ko'olau Property, which contains the Ko'olau Golf Course and Clubhouse, generates direct revenue for the landowner, Ko'olau Golf Partners and general excise tax revenues for the State of Hawai'i.

The median household income in Kāne'ohe in 1999 (\$66,006) was substantially higher than that of Honolulu (\$45,112) and the State of Hawai'i (\$49,820). The median value of owner-occupied housing units in Kāne'ohe (\$286,400) was higher than for the overall State of Hawai'i (\$249,300), although somewhat lower than for the City and County of Honolulu (\$317,300).

Job opportunities and principal employment in the Ko'olaupoko region vary and include employment associated with the Kāne'ohe Marine Corps Air Station, Windward Community College, Windward Mall Shopping Center, other commercial activities in Kāne'ohe and Kailua,

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

and agriculture. The *Ko'olaupoko Sustainable Communities Plan* states that, General Plan policy discourages major new employment growth in the area (with the intent that this growth should be directed toward the primary and secondary urban centers of O'ahu). Nonetheless, a few commercial districts and a number of institutions exist in the region, which provide employment opportunities for residents of the area.

Potential Impacts and Mitigative Measures

The consolidation and re-subdivision of the Ko'olau Property will not affect the economic characteristics of the area. No mitigative measures are planned or warranted.

5.10 AREA INFRASTRUCTURE

Potable Water Systems. There are various sources of potable water near the property serving the Honolulu BWS system in Kāne'ohe: the Lulukū Tunnel and Wells, Kuou I and II Wells, and Kamo'oali'i I and II Wells. There are no BWS water system facilities within the Ko'olau Property. There is a two-inch waterline located within Kionaole Road and a 12-inch water main, part of the BWS "500" High Service System, running along Kamehameha Highway.

Wastewater Facilities. No municipal sewer facilities are located on the Ko'olau Property. A nearby wastewater pump station exists on Kamehameha Highway near the Ko'olau Property. The Kāne'ohe Sewage Treatment Plant is located in the Puohala neighborhood. The Ko'olau Golf Course uses a wastewater pumping station located near the Kionaole Road-Kamehameha Highway intersection. According to the City and County of Honolulu Department of Public Works, Wastewater Management Division, this system is able to accommodate the wastewater flows from the golf course (DHM 1987).

Drainage Facilities. For the most part, the Ko'olau Property uses pre-development drainage patterns of overland flow to pre-existing gulches and streams. Several human-made drainage features are also present on the Ko'olau Property: a drainage ditch exists along the south perimeter of the Ko'olau Golf Course, and paved parking lots and pathways have been constructed as part of the golf club, which may have altered the natural course of overland flow and drainage in the area. Drain easements are present on the property, principally where tributaries of Kamo'oali'i Stream cross the H-3 Interstate Highway.

Solid Waste Disposal Facilities. Solid waste from the property is collected by Aloha Waste Disposal, a private refuse collection service.

Electrical Service. Electrical systems are located along Kamehameha Highway, Kionaole Road, and within surrounding residential subdivisions. In addition, there are several Hawaiian Electric Company overhead power lines, extending from the Ko'olau Mountain ridge to Kāne'ohe town, and traversing the Ko'olau Property in easement corridors from the Ko'olau Substation.

Roadways. Access to the Ko'olau Property is off of Kionaole Road, accessed from Kamehameha Highway. Several constructed roadways are present on the Ko'olau Property, including a parking lot, a paved road encircling the Clubhouse, and golf cart paths throughout the

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

property. Additionally, a maintenance road and maintenance building have been constructed on the subject property.

Potential Impacts and Mitigative Measures

The proposed consolidation and re-subdivision will not impact area infrastructure. No mitigative measures are planned or warranted at this time.

5.11 PUBLIC SERVICES

Public schools in the Kāne'ohe area include the following:

- 'Āhuimanu Elementary School (grades K-6)
- Castle High School (grades 9-12)
- Hakipu'u Learning Center (grades 7-8)
- He'eia Elementary School (grades PK-6)
- Kahalu'u Elementary School (grades PK-6)
- Kāne'ohe Elementary School (grades PK-6)
- Kapunahala Elementary School (grades PK-6)
- King Intermediate School (grades 7-8)
- Parker Elementary School (grades PK-6)
- Pū'ōhala Elementary School (grades PK-6)
- Waiāhole Elementary School (grades PK-6)

Additionally, the Windward Hawai'i Loa campus of Hawai'i Pacific University and the University of Hawai'i Windward Community College are located in the Kāne'ohe area. The main public library for the region is the Kāne'ohe Public Library.

Emergency services are provided by the Kāne'ohe Fire Station, which is located at 45-910 Kamehameha Highway, and the Kāne'ohe City Police Station, which is located at 45-270 Waikalua Road.

Health care services are provided by the Hawai'i State Hospital and the Kāne'ohe Family Resource Center, as well as several smaller clinics. The closest emergency medical services are available at Castle Medical Center in Kailua.

Land-based recreational areas in the region include He'eia State Park, the Ho'omaluhia Botanical Garden, and assorted hiking trails (such as the Olomana, Likeke, and Maunawili trails).

The City and County of Honolulu's public transportation system, The Bus, services this area of O'ahu.

Potential Impacts and Mitigative Measures

The proposed action will not impact the existing physical infrastructure. No mitigative measures are planned or warranted.

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

6.0 ALTERNATIVES TO THE PROPOSED ACTION

According to Title 11, Department of Health, Chapter 200, Environmental Impact Statement Rules, Section 11-200-10(6), an environmental assessment must discuss potential alternatives to the proposed action.

Three alternatives were considered: 1) no action, 2) change the property's State Land Use designation, and 3) the preferred alternative.

6.1 THE NO-ACTION ALTERNATIVE

Under the "no action" alternative, the consolidation and re-subdivision of the Ko'olau Property would not occur. The owner would not be able to reconfigure the existing two lots and create one parcel for the golf course-related facilities and the other for the undeveloped land. This alternative has been rejected.

6.2 THE CHANGE IN LAND USE DISTRICT ALTERNATIVE

The Ko'olau Property is located within the State Conservation District. The landowner could petition the State Land Use Commission to amend the State Land Use District boundaries of the property to accommodate other land uses, such as housing development.

This alternative would increase traffic in the area, change the visual appearance and character of the property, and increase demand on public infrastructure and services. This alternative has also been rejected.

6.3 THE PREFERRED ALTERNATIVE

The preferred alternative is to consolidate the existing two parcels TMK 4-5-042:001 (215.82 acres) and TMK 4-5-042:006 (459.20 acres), and re-subdivide the 668.1-acre property into two parcels. One parcel would be ~~240.4~~ 245.3 acres in size and would contain the golf course and all golf-course related development. The second parcel would be 427.7 acres in size and would contain the unimproved lands of the Ko'olau Property.

The re-subdivision does not create any significant impacts as described in Chapters 4.0 and 5.0 of this environmental assessment. Consolidation and re-subdivision of land into an equal number of lots that does not result in increased density is an identified use in the General, Resource and Protective subzones.

As previously stated, uses for the unimproved parcel are not known at this time; however, the intent is to keep the area primarily in its natural, undeveloped state. Ko'olau Golf Partners is currently in discussions with a third party regarding ecotourism opportunities on the property, which may include a botanical garden and private park, guided hiking tours, and possibly other recreational activities.

**KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment**

Any future changes in land uses on the properties may require a separate environmental assessment or environmental impact statement in which specific effects related to the proposed land use and mitigative measures would need to be addressed.

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

7.0 DETERMINATION, FINDINGS, AND REASONS FOR SUPPORTING DETERMINATION

To determine whether the Ko'olau Property consolidation and re-subdivision will have a significant impact on the physical and human environment, all phases and expected consequences of the consolidation and re-subdivision have been evaluated. Based on this evaluation, a Finding of No Significant Impact (FONSI) has been issued by the Approving Agency, the State of Hawai'i Department of Land and Natural Resources. The supporting rationale for this anticipated finding is summarized in this chapter.

7.1 SIGNIFICANCE CRITERIA

According to the Department of Health (DOH) Rules (11-200-12), an applicant or agency must determine whether an action may have a significant impact on the environment. This determination must consider all phases of the project, expected consequences (both primary and secondary), cumulative impacts examined in conjunction with other projects, and short- and long-term impacts. In making the determination, the DOH Rules establish a Significance Criteria to be used as a basis for identifying whether significant physical and/or human environmental impacts will occur. According to the DOH Rules, an action shall be determined to have a significant impact on the environment if it meets any of specific criteria. The determination of impacts potentially resulting from the Ko'olau Property consolidation and re-subdivision process, and the associated rationale supporting that determination are organized based on these criteria, as follows.

- (1) *[The proposed action] Involves an irrevocable commitment to loss or destruction of any natural or cultural resources;*

Discussion: The proposed consolidation and re-subdivision does not create any significant impacts as described in Chapters 4.0 and 5.0 of this environmental assessment. Because no land use changes are proposed, the identified archeological sites noted in Section 5.1 will not be affected by the consolidation and re-subdivision. Ko'olau Golf Partners will comply with all State and County laws and rules regarding the preservation of historic sites and cultural resources. Since the re-subdivision is technically a legal procedure to demarcate the boundaries of the property on a subdivision map, and because no physical land use changes are proposed, the subdivision will not generate new physical effects or impacts on the Ko'olau Property. Thus, there are no findings of significant impacts, and no mitigative measures are warranted.

- (2) *Curtails the range of beneficial uses of the environment;*

The proposed action does not curtail the beneficial use of the environment. No physical improvements or changes in use are proposed. Uses for the unimproved parcel are not known at this time; however, the intent is to keep the area primarily in its natural, undeveloped state. Ko'olau Golf Partners is currently in discussions with a third party regarding ecotourism opportunities on the property, which may include a botanical garden and private park, guided hiking tours, and possibly other recreational activities.

**KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment**

Any future changes in land uses on the properties may require a separate environmental assessment or environmental impact statement in which specific effects related to the proposed land use and mitigative measures would need to be addressed.

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

The proposed consolidation and re-subdivision does not conflict with State of Hawai'i's long-term environmental policies or goals and guidelines. No change in land use is proposed.

- (4) *Substantially affects the economic welfare, social welfare, and cultural practices of the community or State;*

No impacts to the social and economic welfare of the community and State will occur as a result of the Ko'olau Property consolidation and re-subdivision. No change in land use and no improvements are proposed.

- (5) *Substantially affects public health;*

Public health will not be adversely affected by the proposed action. No change in existing land use is proposed.

- (6) *Involves substantial secondary impacts, such as population changes or effects on public facilities;*

The proposed action does not involve secondary impacts. No change in land use is proposed and no improvements are proposed.

- (7) *Involves a substantial degradation of environmental quality;*

The consolidation and re-subdivision will not substantially degrade environmental quality because no change in use is proposed and no physical improvements are proposed.

- (8) *Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for larger actions;*

Consolidation and re-subdivision of land into an equal number of lots that does not result in increased density is an identified use in the General, Resource and Protective subzones. The proposed action is being undertaken so that one parcel would contain the Ko'olau Golf Course and all golf-course related development, and the second parcel would contain the unimproved portion of the Property.

- (9) *Substantially affects a rare, threatened, or endangered species or its habitat;*

No rare, threatened, or endangered species currently exist on the property. The proposed action will not create any physical changes or physical improvements to the Property.

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

(10) Detrimentially affects air or water quality or ambient noise levels;

The Ko'olau Property consolidation and re-subdivision will not impact air or water quality or ambient noise levels in the area. No changes for structures or physical improvements are proposed.

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

The proposed consolidation and re-subdivision will have no effect on these environments, nor will it incur threats from ecological hazards. No structures or physical improvements are proposed.

(12) Substantially affects scenic vistas and view planes identified in county or state plans or studies;

The proposed consolidation and re-subdivision will have no effect on scenic vistas or view planes. No structures or physical improvements are proposed. The proposed action will preserve existing scenic vistas and view planes. As previously stated, uses for the unimproved parcel are not known at this time; however, the intent is to keep the area primarily in its natural, undeveloped state.

(13) Requires substantial energy consumption.

The Ko'olau Property consolidation and re-subdivision will not create the need for additional energy consumption.

7.2 DETERMINATION

On the basis of potential impacts examined in this document and analyzed under the above criteria, it is anticipated that consolidating and re-subdividing the Ko'olau Property will not have a significant effect on the local, County, or Statewide physical or human environments. Pursuant to Chapter 343, HRS, the Approving Agency, which in this case is the State of Hawai'i Department of Land and Natural Resources, has issued a Finding of No Significant Impact (FONSI).

**KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment**

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KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

8.0 REFERENCES

- Baker, H.L. et al. (1965) *Detailed Land Classification, Island of O'ahu*. L.S. Land Study Bureau, University of Hawai'i.
- Ball, S.M. Jr. (2000) *The Hiker's Guide to O'ahu, revised edition*. University of Hawai'i Press, Honolulu.
- Department of General Planning. (1992) *General Plan: Objectives and Policies*. City and County of Honolulu.
- Department of Planning and Permitting. (2000) *Ko'olaupoko Sustainable Communities Plan*. City and County of Honolulu.
- DHM, Inc. for the Nitto Kogyo Company, Ltd. (1983) *Final Environmental Impact Statement for Golf Course on Iolani School Property, Kāne'ōhe, O'ahu*.
- DHM, Inc. for the Nitto Kogyo Company, Ltd. (1983) *Final Environmental Impact Statement Addendum for Golf Course on Iolani School Property, Kāne'ōhe, O'ahu*.
- DHM, Inc. for the Nitto Kogyo Company, Ltd. (1987) *Environmental Impact Statement for Golf Course on Iolani School Property, Kāne'ōhe, O'ahu*.
- Hawai'i State Department of Agriculture. (1977) *Agricultural Lands of Importance to the State of Hawai'i*. Honolulu, Hawai'i.
- Juvik, Sonia P. & James O. Juvik, eds. (1998) *Atlas of Hawai'i*. 2nd edition. Honolulu: University of Hawai'i Press, Honolulu.
- Macdonald, Gordon A., Again T. Talbot, Frank L. Peterson. (1983) *Volcanoes Under the Sea: The Geology of Hawai'i*. University of Hawai'i Press, Honolulu.
- Meeker, V. (1995) *From Firepits to Charcoal Kilns: Resource Procurement and Land Use in the Upland Kāne'ōhe Catchment*, International Archaeological Research Institute, Inc.
- Neller, E. (1985) *The Luluku Settlement: Site 50-OA-2915, an archaeological reconnaissance of a Hawaiian agricultural settlement in Kāne'ōhe, O'ahu, TMK: 4-5-41: 1,4*.
- Pukui, Mary Kawena, and Samuel H. Elbert. (1971 Edition) *Hawaiian Dictionary*. University of Hawai'i Press: Honolulu.
- United States Census Bureau (2000) United States Census 2000 found at <http://www.census.gov/>
- United States Department of Agriculture Soil Conservation Service. (1972) *Islands of Kaua'i, O'ahu, Maui, Moloka'i and Lāna'i, State of Hawai'i*.
- VTN Pacific. (1984) Revised Environmental Impact Statement for Kamo'oali'i Watershed Wells, Kāne'ōhe, O'ahu, Hawai'i.

KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment

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**KO'OLAU PROPERTY CONSOLIDATION AND RE-SUBDIVISION
Final Environmental Assessment**

**9.0 COMMENT ON THE DRAFT ENVIRONMENTAL
ASSESSMENT**

The Draft Environmental Assessment (EA) and Conservation District Use Application (CDUA) were accepted by the Department of Land and Natural Resources (DLNR) on September 16, 2005. The public comment period for the applications was from September 28, 2005 to November 7, 2005.

The only comment letter received was from the Department of Health, Office of Environmental Quality Control.

LINDA LINGLE
GOVERNOR OF HAWAII



GENEVIEVE SALMONSON
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E-mail: ceqc@health.state.hi.us

October 10, 2005

Peter Young
Board of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Attention: Chris Pramoulmetar

Dear Mr. Young:

Subject: Draft Environmental Assessment (EA)
Ko'olau Property Consolidation & Resubdivision

Consultations: In the final EA include any correspondence received during the pre-consultation period. Section 1.8 lists the Census Bureau as a pre-consulted agency. Why was this agency contacted? Be sure to include any written comments from this agency in the final EA.

If you have any questions, call Nancy Heinrich at 586-4185.

Sincerely,

Genevieve Salmonson
GENEVIEVE SALMONSON
Director

c: Tom Schnell



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November 11, 2005

Ms. Genevieve Salmonson, Director
State of Hawai'i
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawai'i 96813

**SUBJECT: KO'OLAU PROPERTY CONSOLIDATION & RE-SUBDIVISION
DRAFT ENVIRONMENTAL ASSESSMENT**

Dear Ms. Salmonson:

Thank you for your letter dated October 10, 2005 regarding the draft environmental assessment for the Ko'olau Property consolidation and re-subdivision. As the consultant for the applicant, Ko'olau Golf Partners, we are responding to your comments.

Consultations: Pre-consultation letters were not received. Agency documents were consulted and reviewed.

Census Bureau documents were obtained to gather information regarding the statistics referenced in Section 5.8 (Social and Demographic Characteristics).

Thank you for reviewing the Draft EA. Your letter will be included in the Final EA.

Sincerely,

PBR HAWAII

Tom Schnell, AICP
Associate

cc: Mr. Sam Lemmo, DLNR
Mr. Tim Chun, Ko'olau Golf Partners

