

Second Draft Environmental Impact Statement

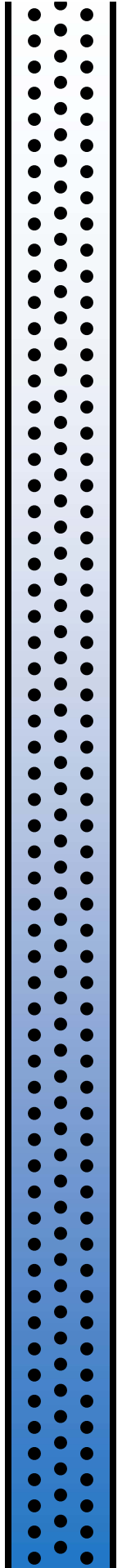
Kaloko Makai

Kaloko and Kohanaiki, North Kona, Island of Hawai'i
Volume 1 of 2

**Prepared For:
SCD-TSA Kaloko Makai, LLC**

**Prepared By:
Wilson Okamoto Corporation and
Ho'okuleana LLC**

August 2013



**Second
Draft Environmental Impact Statement**

Volume 1 of 2

Kaloko Makai

Kaloko and Kohanaiki, North Kona, Island of Hawai'i

**Prepared For:
SCD – TSA Kaloko Makai, LLC**

**Prepared By:
Wilson Okamoto Corporation
and
Ho'okuleana LLC**

August 2013

TABLE OF CONTENTS

	<u>Page</u>
GLOSSARY OF ACRONYMS AND TECHNICAL TERMS	G-1
CHAPTER 343 DRAFT EIS SUMMARY SHEET	S-1
PREFACE	P-1
1. INTRODUCTION AND SUMMARY	1-1
1.1 PROFILE	1-1
1.2 APPLICANT	1-7
1.3 ENVIRONMENTAL CONSULTANT	1-7
1.4 ACCEPTING AUTHORITY	1-8
1.5 COMPLIANCE WITH STATE OF HAWAI`I AND COUNTY OF HAWAI`I ENVIRONMENTAL LAWS	1-8
1.6 STUDIES CONTRIBUTING TO THIS EIS	1-9
1.7 EXECUTIVE SUMMARY	1-10
1.7.1 Kaloko Makai	1-10
1.7.2 Summary of Potential Impacts and Proposed Mitigation Measures	1-11
1.7.3 Relationship to Land Use Policies	1-16
1.7.4 Required Permits and Approvals	1-18
1.7.5 Alternatives	1-19
1.7.6 Cumulative and Secondary Impacts	1-19
1.7.7 Rationale for Proceeding with Kaloko Makai Notwithstanding Unavoidable Effects	1-19
1.7.8 Unresolved Issues	1-20
2. PROJECT DESCRIPTION	2-1
2.1 BACKGROUND INFORMATION	2-1
2.1.1 Location and Surrounding Uses	2-1
2.1.2 Land Ownership	2-7
2.1.3 Property Description	2-7
2.1.4 Overview of Region	2-8
2.1.5 History of the Property	2-15
2.2 PROJECT PURPOSE AND NEED	2-18
2.2.1 Purpose and Objectives	2-18
2.2.2 Project Need	2-19
2.2.2.1 Residential Market	2-19
2.2.2.2 Commercial Market	2-21
2.2.2.3 Light Industrial/Business Park Market	2-23
2.2.2.4 Lodge and Business Center Market	2-25
2.2.2.5 Kona Community Development Plan	2-26
2.3 KALOKO MAKAI DESCRIPTION	2-29
2.3.1 Key Components within Kaloko Makai	2-30

- 2.3.1.1 New West Hawai'i Regional Acute Care Hospital/Medical Center at Kaloko Makai..... 2-30
- 2.3.1.2 Lodge and Business Center 2-45
- 2.3.1.3 Commercial 2-46
- 2.3.1.4 Light Industrial 2-46
- 2.3.1.5 Schools 2-47
- 2.3.1.6 Parks and Open Space/Buffers 2-47
- 2.3.1.7 Kaloko Dryland Forest..... 2-47
- 2.3.1.8 Kohanaiki Trail..... 2-47
- 2.3.1.9 Core Infrastructure 2-48
 - 2.3.1.9.1 Circulation and Roadways..... 2-48
 - 2.3.1.9.2 Drinking Water 2-51
 - 2.3.1.9.3 Wastewater Treatment..... 2-51
- 2.3.2 Use of Public Funds; Use of Public Lands 2-53
- 2.3.3 Transit Oriented Development Village and Neighborhoods in Kaloko Makai ... 2-53
 - 2.3.3.1 Background 2-53
 - 2.3.3.2 Overall Kaloko Makai TOD 2-56
 - 2.3.3.2.1 Hospital Neighborhood 2-57
 - 2.3.3.2.2 Middle School Neighborhood 2-58
 - 2.3.3.2.3 Makai Elementary School Neighborhood 2-58
 - 2.3.3.3 Mauka Elementary School TND 2-59
 - 2.3.3.4 Special District Mixed-Use Industrial 2-59
 - 2.3.3.5 Secondary Areas 2-60
 - 2.3.3.6 Open Space 2-61
- 2.4 DEVELOPMENT TIMETABLE AND PRELIMINARY COSTS..... 2-61
- 2.5 ENVIRONMENTALLY RESPONSIBLE PLANNING AND DESIGN 2-62
 - 2.5.1 OEQC's Sustainable Building Design Guidelines 2-62
 - 2.5.2 Leadership in Energy and Environmental Design (LEED) 2-63
 - 2.5.3 Energy Star Program 2-63
 - 2.5.4 Sustainability Issues 2-64

- 3. DESCRIPTION OF THE NATURAL ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES 3-1**
 - 3.1. CLIMATE 3-1
 - 3.2. GEOLOGY AND TOPOGRAPHY..... 3-1
 - 3.3. SOILS 3-2
 - 3.3.1. USDA Soil Conservation Service Soil Survey..... 3-2
 - 3.3.2. LSB Detailed Land Classification..... 3-4
 - 3.3.3. Agricultural Land of Importance to the State of Hawai'i 3-6
 - 3.4. NATURAL HAZARDS..... 3-8
 - 3.4.1. Flooding..... 3-8
 - 3.4.2. Tsunami 3-10
 - 3.4.3. Hurricane..... 3-10
 - 3.4.4. Volcanic 3-11
 - 3.4.5. Earthquake 3-11
 - 3.4.6. Wildfires 3-11

TABLE OF CONTENTS (continued)

	<u>Page</u>
3.5. GROUNDWATER RESOURCES AND NEARSHORE MARINE ENVIRONMENT	3-13
3.5.1. Groundwater Resources	3-13
3.5.2. Nearshore Marine Environment and Ponds	3-32
3.5.2.1. Water Chemistry	3-32
3.5.2.1.1. Physical Characteristics of ‘Aimakapā and Kaloko Ponds.....	3-33
3.5.2.1.2. Horizontal and Vertical Stratification.....	3-33
3.5.2.1.3. Conservative Mixing Analysis.....	3-35
3.5.2.1.4. Pond Metabolism.....	3-37
3.5.2.2. Pond Sediment.....	3-37
3.5.2.3. Biological Community	3-38
3.5.2.4. Endangered Marine Species	3-41
3.5.2.5. Water Quality Standards.....	3-41
3.6. FLORA.....	3-50
3.7. FAUNA.....	3-60
3.7.1 Avian Fauna.....	3-60
3.7.2 Terrestrial Fauna	3-62
3.7.3 Invertebrate Resources	3-62
4. DESCRIPTION OF THE HUMAN ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES	4-1
4.1. ARCHAEOLOGICAL AND HISTORIC RESOURCES	4-1
4.1.1. Archaeological Background.....	4-1
4.1.2. Results of Archaeological Inventory Survey.....	4-7
4.1.3. Conclusions	4-10
4.2. CULTURAL RESOURCES	4-33
4.2.1. Previous Cultural Impact Assessment (CIA)	4-34
4.2.2. Environmental Setting.....	4-34
4.2.2.1. Natural Environment	4-34
4.2.2.2. Built Environment	4-35
4.2.3. Traditional and Historic Background.....	4-36
4.2.3.1. Mythological and Traditional Accounts	4-36
4.2.3.1.1. Kekaha.....	4-36
4.2.3.1.2. Legend of Ka-Miki	4-38
4.2.4. Early Historic Period	4-40
4.2.4.1. Historic Cultivation.....	4-42
4.2.4.2. Historic Ranching	4-42
4.2.5. Mid- to Late -1800s	4-43
4.2.6. 1900s.....	4-45
4.2.6.1. Hu‘ehu‘e Ranch.....	4-45
4.2.6.2. Modern Land Use.....	4-46
4.2.7. Community Consultation Effort	4-47

TABLE OF CONTENTS (continued)

	<u>Page</u>
4.2.7.1. Community Responses.....	4-47
4.2.8. Traditional Practices and Properties.....	4-48
4.2.8.1. Hawaiian Habitation	4-48
4.2.8.2. Gathering of Plant Resources	4-48
4.2.8.3. Marine and Freshwater Resources	4-49
4.2.8.4. Burials	4-49
4.2.8.5. Trails.....	4-49
4.3. TRAIL ACCESS	4-53
4.3.1. Kohanaiki Trail.....	4-53
4.4. ROADWAYS AND TRAFFIC.....	4-56
4.4.1. Existing Conditions	4-58
4.4.1.1. Existing Roadways.....	4-58
4.4.2. Existing Transit Service.....	4-59
4.4.3. Kona CDP.....	4-59
4.4.4. Levels of Service Analysis of Existing Condition.....	4-60
4.4.5. Planned Roadway Improvements	4-61
4.5. NOISE	4-86
4.5.1. Traffic Noise	4-86
4.5.2. Aircraft Noise	4-86
4.6. AIR QUALITY	4-95
4.7. VISUAL RESOURCES.....	4-102
4.8. Public Services and Facilities.....	4-102
4.8.1. Police Protection	4-102
4.8.2. Fire Protection.....	4-103
4.8.3. Health Care Services.....	4-104
4.8.4. Schools	4-105
4.8.5. Recreational Facilities	4-106
4.9. Socio Economic Characteristics	4-107
4.9.1. Population	4-107
4.9.2. Economy and Employment	4-109
4.9.2.1. Employment.....	4-109
4.9.2.2. Fiscal Impacts.....	4-112
4.9.3. Market Assessment.....	4-112
4.9.3.1. Residential Market.....	4-113
4.9.3.2. Commercial	4-114
4.9.4. Social Impact Assessment	4-117
4.10. INFRASTRUCTURE AND UTILITIES	4-119
4.10.1. Water System.....	4-119
4.10.2. Wastewater System	4-120
4.10.3. Drainage System	4-129
4.10.4. Solid Waste.....	4-130
4.10.5. Electrical	4-131
4.10.6. Telephone and Cable Communications	4-133

TABLE OF CONTENTS (continued)

	<u>Page</u>
5. RELATIONSHIP OF THE PROPOSED ACTION TO LAND USE PLANS, POLICIES, AND CONTROLS FOR THE AFFECTED AREA	5-1
5.1 STATE OF HAWAI'I	5-1
5.1.1 Chapter 343, Hawai'i Revised Statutes	5-1
5.1.2 State Land Use Law, Chapter 205, Hawai'i Revised Statutes	5-2
5.1.2.1 State Land Use Commission Decision Making Criteria	5-3
5.1.2.2 Standards for Determining Urban District Boundaries	5-5
5.1.3 Coastal Zone Management Act, Chapter 205A, Hawai'i Revised Statutes	5-7
5.1.4 Hawai'i State Plan, Chapter 226, Hawai'i Revised Statutes	5-15
5.1.5 State Functional Plans	5-34
5.2 COUNTY OF HAWAI'I	5-38
5.2.1 County of Hawai'i General Plan	5-38
5.2.1.1 General Plan Land Use Pattern Allocation Guide Map	5-60
5.2.2 Keahole to Kailua Development Plan	5-61
5.2.3 Kona Community Development Plan	5-62
5.2.3.1 Kona CDP Guiding Principles	5-65
5.2.3.2 Goals, Objectives, Policies, and Actions	5-69
5.2.4 County of Hawai'i Zoning	5-79
5.2.5 County of Hawai'i Special Management Area	5-79
6. APPROVALS AND PERMITS	6-1
7. ALTERNATIVES TO THE PROPOSED ACTION	7-1
7.1 NO ACTION	7-1
7.2 NEIGHBORHOOD TOD (WITHOUT HOSPITAL AND 600,000 SQ. FT. COMMERCIAL USE)	7-3
7.3 NEIGHBORHOOD TOD WITH MAXIMUM DENSITY PERMITTED UNDER KONA CDP GUIDELINES	7-7
7.4 EXISTING ZONING (5-ACRE AGRICULTURAL LOTS, GOLF, CONSERVATION)	7-11
7.5 CONVENTIONAL SUBDIVISION DEVELOPMENT (5-UNITS/ACRE; SOME COMMERCIAL AND INDUSTRIAL)	7-15
7.6 ALTERNATE LOCATION	7-19
8. CONTEXTUAL ISSUES	8-1
8.1 RELATIONSHIP BETWEEN THE SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY	8-1
8.2 CUMULATIVE IMPACTS	8-2
8.3 SECONDARY IMPACTS	8-5
8.4 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES	8-7
8.5 PROBABLE ADVERSE ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED	8-8
8.5.1 Rationale for Proceeding with Kaloko Makai notwithstanding Unavoidable Effects	8-9
8.6 UNRESOLVED ISSUES	8-10
8.6.1 Transportation Improvements	8-10
8.6.2 Archaeological and Historic Resources	8-10

TABLE OF CONTENTS (continued)

	<u>Page</u>
8.6.3 Type of Transit Oriented Development Village.....	8-10
9. CONSULTATION	9-1
9.1 Pre-Consultation	9-1
9.2 Environmental Impact Statement Preparation Notice Consultation.....	9-1
9.2.1 Meetings with Elected Officials, Agencies and Stakeholders	9-4
9.3 Agencies and Parties To Be Consulted during the Draft EIS.	9-4
10. LIST OF PREPARERS.....	10-1
11. REFERENCES	11-1

LIST OF FIGURES

Figure 2-1	Regional Location Map.....	2-3
Figure 2-2	Tax Map Key: 7-3-009: 017, 025, 026, 028, and 063.....	2-4
Figure 2-3	Project Site Photos	2-5
Figure 2-4	Existing and Proposed Uses Within the Vicinity of the Project Site.....	2-6
Figure 2-5	State Land Use District Map	2-9
Figure 2-6	State Conservation District Subzones	2-10
Figure 2-7	County General Plan Land Use Pattern Allocation Guide	2-11
Figure 2-8	County of Hawai'i Zoning	2-12
Figure 2-9	Kona Community Development Plan Official Kona Land Use Map.....	2-13
Figure 2-10	Proposed State Land Use District Boundary Amendment Petition Area	2-14
Figure 2-11	Kaloko Makai Overall Land Use Plan	2-33
Figure 2-12	Kaloko Makai Land Use Plan Phase 1	2-35
Figure 2-13	Kaloko Makai Land Use Plan Phase 2	2-37
Figure 2-14	Kaloko Makai Land Use Plan Phase 3	2-39
Figure 2-15	Kaloko Makai Overall Land Use Plan Without Hospital.....	2-41
Figure 3-1	Soils Map	3-3
Figure 3-2	Land Study Bureau Map	3-5
Figure 3-3	Agricultural Lands of Importance in the State of Hawai'i	3-7
Figure 3-4	Flood Zone Map.....	3-9
Figure 3-5	Hualālai Aquifer; noting Kiholo and Keauhou Areas (From WUDP).....	3-14
Figure 3-6	Location of Wells Within or Near Kaloko Makai Project Site	3-15
Figure 3-7	Salinity and Temperature Profile Through the Water Column of Well 4160-02 (September 14, 2012)	3-16
Figure 3-8	Composite Profile Through the Water Column of the Kamakana Borehole (Profiles of 4/12/10, 6/5/10, and 8/18/10).....	3-18
Figure 3-9	Profile Through the Water Column of the Kamakana Borehole After Fresh Water was Encountered (May 12, 2010)	3-20

TABLE OF CONTENTS (continued)

Page

LIST OF FIGURES (continued)

Figure 3-10 Underground Injection Control Area, Island of Hawai‘i 3-26

Figure 3-11 Water Quality Standards Map, Island of Hawai‘i 3-42

Figure 3-12 Honokōhau Bay, Class A Waters 3-43

Figure 4-1 Previous Archaeological Studies in the Vicinity of the Project Area 4-5

Figure 4-2 Archaeological Sites..... 4-31

Figure 4-3 TIAR Study Area 4-57

Figure 4-4 Recommended 2025 Without Project Lane Geometry 4-68

Figure 4-5 Recommended 2025 Lane Geometry..... 4-70

Figure 4-6 Recommended 2035 Lane Geometry..... 4-75

Figure 4-7 Recommended 2045 Without Project Lane Geometry 4-77

Figure 4-8 Recommended 2045 Lane Geometry..... 4-81

Figure 4-9A Intersection Improvement Summary 1 of 2 4-82

Figure 4-9B Intersection Improvement Summary 2 of 2 4-83

Figure 4-10 Locations of Existing Average Aircraft Departure Flight Tracks in Project
Environ 4-87

Figure 4-11 Locations of Existing Average Aircraft Arrival Flight Tracks in Project Environ 4-88

Figure 4-12 Locations of Existing Average Aircraft Training Flight Tracks in Project Environ... 4-89

Figure 4-13 2008 14 CFR Part 150 Noise Contours For Kona International Airport at
Keahole..... 4-90

Figure 4-14 Kona CDP Official Public Facilities and Service Map – Wastewater
Management 4-122

Figure 4-15 Wastewater Treatment Schematic 4-127

Figure 4-16 Wastewater Management System..... 4-128

Figure 5-1 Special Management Area 5-80

LIST OF TABLES

Table 1-1 Proposed SLUB Amendment 1-11

Table 2-1 Projected Market Unit Average Pricing at Kaloko Makai (2010 dollars)..... 2-20

Table 2-2 Illustrative Summary of Maximum Potential Residential Sales Absorption at
Kaloko Makai, 2015 to 2045..... 2-21

Table 2-3 Projected Supportable Commercial Areas in the Primary Trade Area..... 2-22

Table 2-4 Projected Supportable Commercial Market Absorption and Kaloko Makai
Share of the Primary Trade Area 2-23

Table 2-5 Projected Demand for Additional Light Industrial and/or Business Park
Lands in the Primary Trade Area 2-25

Table 2-6 Estimated Allocation by Land Use Type and Phase..... 2-31

TABLE OF CONTENTS (continued)

Page

LIST OF TABLES (continued)

Table 3-1 Tidal Lags and Amplitudes..... 3-19

Table 3-2 Drinking Water and Non-Drinking Water Demand Average Daily Use 3-22

Table 3-3 Approximated Changes to the Basal Groundwater Flowing Beneath the
Kaloko Makai Project Site..... 3-29

Table 3-4 Native (and early Polynesian introduced) Plants 3-52

Table 4-1 Archaeological Site Density by Parcel and Acreage 4-7

Table 4-2 Summary Occurrences of Formal Feature Types 4-11

Table 4-3 Summary Occurrences of Formal Site Function 4-11

Table 4-4 Archaeological Site Summary for TMK Parcel 17 4-12

Table 4-5 Archaeological Site Summary for TMK Parcel 25 4-15

Table 4-6 Archaeological Site Summary for TMK Parcel 26 (Keahole Pt. Quad)..... 4-21

Table 4-7 Archaeological Site Summary for TMK Parcel 26 (Kailua Quad) 4-21

Table 4-8 Archaeological Site Summary for TMK Parcel 28 (Keahole Pt. Quad)..... 4-26

Table 4-9 Mitigation measures recommended for each parcel 4-29

Table 4-10 Existing Conditions Intersection Levels of Service Analysis Summary 4-61

Table 4-11 Intersection Mitigation Summary 4-63

Table 4-12 2025 With Project Phase 2 Intersection Level of Service Analysis Summary..... 4-67

Table 4-13 2025 With Project Phase 1 Intersection Level of Service Analysis Summary..... 4-69

Table 4-14 2035 Without Project Conditions Intersection Level of Service Analysis
Summary 4-73

Table 4-15 2035 With Project Phase 2 Intersection Level of Service Analysis Summary..... 4-74

Table 4-16 2045 Without Project Intersection Level of Service Analysis Summary 4-76

Table 4-17 2045 With Project Phase 3 Intersection Level of Service Analysis Summary..... 4-79

Table 4-18 Intersection Level of Service Analysis Summary, Without Recommended
Mitigations 4-84

Table 4-19 Intersection Level of Service Analysis Summary, with Recommended
Mitigations 4-85

Table 4-20 Calculations of Project and Non-Project Traffic Noise Contributions (2045)..... 4-92

Table 4-21 Year 2011 and 2045 Distances to 65 and 75 DNL Contours..... 4-92

Table 4-22 Summary of State of Hawai'i and National Ambient Air Quality Standards 4-96

Table 4-23 Estimated Worst-Case 1-Hour Carbon Monoxide Concentrations Along
Roadways Near Kaloko Makai Village Project: Present and Without Project 4-99

Table 4-24 Estimated Worst-Case 1-Hour Carbon Monoxide Concentrations Along Roadways
Near Kaloko Makai Village Project: With Project 4-99

Table 4-25 Estimated Worst-Case 8-Hour Carbon Monoxide Concentration Along Roadways
Near Kaloko Makai Village Project: Present and Without Project 4-100

Table 4-26 Estimated Worst-Case 8-Hour Carbon Monoxide Concentrations Along Roadways
Near Kaloko Makai Village Project: With Project 4-100

Table 4-27 Estimated Indirect Air Pollution Emissions From Kalok Makai Project
Electrical Demand..... 4-101

Table 4-28 BOE Policy on School Design Enrollment Guidelines 4-105

TABLE OF CONTENTS (continued)

Page

LIST OF TABLES (continued)

Table 4-29	Summary of Projected Economic and Fiscal Impacts.....	4-111
Table 4-30	Illustrative Summary of Maximum Potential Residential Sales Absorption at Kaloko Makai, 2015 to 2045	4-114
Table 4-31	Projected Supportable Commercial Market Absorption and Kaloko Makai Share of the Trade Area.....	4-116
Table 4-32	Potential R-1 Recycled Water Uses at Kaloko Makai	4-126
Table 8-1	Planned Residential and Commercial Developments in the Project Vicinity	8-4

LIST OF APPENDICES

Volume 2 of 2

- Appendix A Market Assessment for Kaloko Makai, Mikiko Corporation, April 2012.
- Appendix B Service Area Health Care Facilities Forecast – Kaloko Makai, Cattaneo & Stroud, Inc., June 2011.
- Appendix C Assessment of the Potential Impact of the Proposed Kaloko Makai Project on Water Resources, Tom Nance Water Resource Engineering, Revised July 2013.
- Appendix D Assessment of Marine and Pond Environments in the Vicinity of the Kaloko Makai Project, Marine Research Consultants, December 2012.
- Appendix E Botanical Survey of Kaloko Properties, Isle Botanica, December 2006.
- Appendix F Survey of Avian and Terrestrial Mammalian Species, Rana Productions, Ltd., September 2006.
- Appendix G Update Flora and Fauna Surveys for the Kaloko Makai Development, Rana Biological Consulting Inc. and AECOS Consultants, May 17, 2012.
- Appendix H Survey of Terrestrial Invertebrate Resources at Kaloko Makai, Steven Lee Montgomery, Ph.D., November 2008
- Appendix I Summary Report of Archaeological Inventory Survey for Kaloko Makai, Cultural Surveys Hawaii, Inc., May 2008.
- The Archaeological Inventory Survey (March 2008 and May 2008) consists of seven volumes. The complete report has been filed with Department of Land and Natural Resources State Historic Preservation, the Office of Environmental Quality Control, State Land Use Commission, and Office of Hawaiian Affairs.*
- Appendix J Cultural Impact Assessment for Kaloko Makai, Cultural Surveys Hawaii, Inc., May 2008.
- Appendix K Traffic Impact Study for Kaloko Makai, KOA Corporation, September 12, 2012.
- Appendix L Acoustic Study for the Proposed Kaloko Makai Project, Y. Ebisu & Associates, August 2012.
- Appendix M Air Quality Study for the Proposed Kaloko Makai Project, B.D. Neal & Associates, October 31, 2012.
- Appendix N Economic and Fiscal Impact Assessment for Kaloko Makai, Mikiko Corporation, January 2013
- Appendix O Kaloko Makai Social Impact Assessment, John M. Knox & Associates, Inc., June 2011.
- Appendix P Preliminary Engineering Report for Kaloko Makai, Wilson Okamoto Corporation, July 2013.
- Appendix Q Sustainability Plan, Hookuleana, LLC, November 2012
- Appendix R EISPN Comment and Response Letters
- Appendix S Draft EIS Comment and Response Letters

GLOSSARY OF ACRONYMS AND TECHNICAL TERMS

AAQS – Ambient Air Quality Standards

ACS – American Community Survey

ADF – Average Daily Flow

ADT – Average Daily Traffic Counts

ALISH - Agricultural Lands of Importance in the State of Hawai'i

AMSL – Above Mean Sea Level

ANOVA – Analysis of Variance

BMP – Best Management Practices

BNR – Biological Nutrient Removal

BWS – Board of Water Supply

CDPH – California Department of Public Health

CEMP – Comprehensive Environmental Monitoring Program

CIA – Cultural Impact Assessment

COL – Conclusions of Law

COZ – Change of Zone

CWRM – Commission on Water Resource Management

CZM – Coastal Zone Management

dBA or dB – Decibels

DBED&T – Department of Business Economic Development & Tourism

DEM – County of Hawai'i, Department of Environmental Management's

DLNR – Department of Land and Natural Resources

GLOSSARY OF ACRONYMS AND TECHNICAL TERMS (CONTINUED)

DLNR -DOFAW - Department of Land and Natural Resources Department of Forestry and Wildlife

DNL – Day-Night Average Sound Level

DO – Dissolved Oxygen

DOBOR - Division of Boating and Ocean Recreation

D&O – Decision and Order

DOE – Department of Education

DOH – Department of Health

DOT – Department of Transportation

DPP – Department of Planning & Permitting

DPS – Department of Public Safety

DWS – County Department of Water Supply

DEIS – Draft Environmental Impact Statement

EIS – Environmental Impact Statement

EISPN – Environmental Impact Statement Preparation Notice

ENV – Department of Environmental Services

EPA – Environmental Protection Agency

ESA – Endangered Species Act

FAA – Federal Aviation Administration

FEMA – Federal Emergency Management Association

FHA – Federal Housing Administration

FIRM – Flood Insurance Rate Map

FMA – Fishery Management Area

FOF – Findings of Fact

GLOSSARY OF ACRONYMS AND TECHNICAL TERMS (CONTINUED)

FONSI – Finding of no Significant Impact

FTE – Full Time Equivalent

FWHA – Federal Highway Administration

FY – Fiscal Year

GPM – Gallons per Minute

HAR – Hawai'i Administrative Rules

HCP – Habitat Conservation Plan

HELCO – Hawai'i Electric and Light Company

HHSC – Hawai'i Health Systems Corporation

HIMB – Hawaii Institute of Marine Biology

HOST – Hawai'i Ocean and Science Technology

HRS – Hawaii Revised Statutes

HUD – Department of Housing and Urban Development

Hz – Hertz

ICBO – International Conference of Building Officials

ITE – Institute of Traffic Engineers

KAHO – Kaloko-Honokōhau National Park

KCH – Kona Community Hospital

KHNHP – Kaloko-Honokōhau National Historical Park

Km – Kilometers

KNI – Kealakekua Bay North Inside

KNO – Kealakekua Bay North Outside

K-to-K Plan – Keāhole to Kailua Development Plan

Kona CDP- Kona Community Development Plan

GLOSSARY OF ACRONYMS AND TECHNICAL TERMS (CONTINUED)

Leq – Equivalent sound level

Ldn – Day/Night sound level

LOS – Level of Service

LSB – University of Hawai'i Land Study Bureau

LUC – State Land Use Commission

LUPAG – County General Plan Land Use Pattern Allocation Guide

LUO – Land Use Ordinance

m – meter

m² – square meter

µg/m³ – micrograms per cubic meter

mg/m³ – milligrams per cubic meter

Mgd – Million Gallons Per Day

MLCD – Marine Life Conservation District

Mph – Miles Per Hour

MSL–Mean Sea Level

NELHA - Natural Energy Laboratory of Hawai'i

NKID - North Kona Improvement District Project Sewer Master Plan

NOAA – National Oceanic and Atmospheric Administration

NPDES – National Pollutant Discharge Elimination System

NPS – National Parks Service

NRCS – U.S. Department of Agriculture Natural Resources Conservation Service

NTU – Nephelometric Turbidity Units

OEQC – Office of Environmental and Quality Control

OHA– Office of Hawaiian Affairs

GLOSSARY OF ACRONYMS AND TECHNICAL TERMS (CONTINUED)

OP – Office of Planning

PATH – Peoples Advocacy for Trails Hawaii

PD – Project District

PER – Preliminary Engineering Report

pH – Potential Hydrogen

PIM – Public Infrastructure Map

PPP - Pollution Prevention Plan

PPT – Parts per thousand

PTA – Primary Trade Area

QAPP – Assurance Project Plan

RO – Reverse Osmosis

ROW – Right of Way

SCD – Stanford Carr Development

SHPD – State Historic Preservation Division

SIHP – State Inventory of Historic Places

SMA – Special Management Area

SY – Sustainable Yield

TDN – Total Dissolved Nitrogen

TIAR – Traffic Impact Analysis Report

TMK – Tax Map Key

TON – Total Organic Nitrogen

TOP – Total Organic Phosphorous

TN – Total Nitrogen

TP – Total Phosphorous

GLOSSARY OF ACRONYMS AND TECHNICAL TERMS (CONTINUED)

TN - Total Nitrogen

TND – Traditional Neighborhood Design

TOD – Transit Oriented Development

TON – Total Organic Nitrogen

TOP – Total Organic Phosphorous

TP – Total Phosphorous

UA – Urban Area

UBC – Uniform Building Code

UFC – Uniform Fire Code

UHM – University of Hawai‘i at Manoa

USFWS – United States Fish and Wildlife Service

USGS – United States Geological Survey

UV – Ultraviolet Light

WMA – Wildlife Management Area

WWPTF – Wastewater Pre-Treatment Facility

WWTP – Wastewater Treatment Plant

CHAPTER 343 SECOND DRAFT EIS SUMMARY SHEET

Project Name:	Kaloko Makai
Location:	Kaloko and Kohanaiki, North Kona, Island of Hawai'i
Applicant:	SCD – TSA Kaloko Makai, LLC
Accepting Authority:	State of Hawai'i Land Use Commission
Tax Map Key (TMK):	(3) 7-3-009: 017, 025, 026, 028 and 063
Land Area:	1,138.866 acres

Description of Project and Action:

The Project will consist of an approximately 1,139 acre master planned, mixed-use community village that integrates diverse housing offerings, mixed-use commercial and retail growth and employment opportunities, and a range of community services and facilities (inclusive of medical, lodging, and civic uses as well as recreational opportunities). Kaloko Makai is planned to have approximately 5,000-single and multi-family units, up to 600,000 square feet of gross leasable area for commercial (office and retail) uses, a 120-room Lodge and Business Center, 75-acres of light industrial uses, three public school sites and a Dryland Forest Preserve of at least 150 acres, with additional park and open space uses. Kaloko Makai will also provide 40-acres of land to be used for the development of a regional hospital.

Beneficial Impacts

Project implementation will result in impacts (discussed in Chapters 3 and 4), both beneficial and adverse, to the natural and human environments. Measures to mitigate potentially significant adverse impacts to non-significant levels will be included in the project development.

Anticipated beneficial impacts of the Proposed Action include the following:

- Provision of 5,000 homes
- Increased housing choices
- Increase housing inventory to meet future demands
- Support approximately 3,100 FTE project related jobs on-site by 2045
- Generate approximately \$8.8 million in additional county revenues
- Contribute approximately \$4.9 to \$6.2 million per year net additional state revenues during build-out, with net additional revenues of some \$2.8 million per year after 2045
- Preservation of native Dryland Forest
- Preservation of Kaloko-Kohanaiki historic trail
- Planned growth in an area designated for urban growth by the Kona Community Development Plan (CDP)
- Provision of a pedestrian and transit-friendly community

Potentially Significant Adverse Effects and Mitigation Measures

The project will transform the lands that are currently vacant and undeveloped into a master planned, mixed-use community village. For areas of concern, the range of identified impacts and appropriate mitigation measures that are either recommended or planned to ensure that potential adverse impacts are minimized or mitigated to non-significant levels are further discussed in Chapters 3 and 4.

Cumulative impacts are those that result from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions. Together with other existing and anticipated future development in the area, the project has the potential to generate cumulative impacts including traffic volumes on regional transportation facilities, increased demand for school facilities, potable water, public services, coastal resources, and impacts on open space. Cumulative impacts are further discussed in Chapter 8.

Potential secondary impacts are discussed in Chapter 8 and include: potential air quality impacts associated with the project's electrical power and solid waste disposal requirements.

Alternatives Considered:

The alternatives that have been considered are:

1. No Action
2. Neighborhood TOD (With Hospital and 600,000 Sq. Ft. Commercial Use) (Preferred Alternative)
3. Neighborhood TOD (Without Hospital but with 600,000 Sq. Ft. Commercial Use)
4. Neighborhood TOD with Maximum Density Permitted under Kona CDP Design Guidelines
5. Existing Zoning (5-acre Agricultural Lots, Golf, Conservation)
6. Conventional Subdivision Development (5-units/acre; Some Commercial and Industrial)
7. Alternate Location

See Chapter 7 for further discussion of the alternatives.

Unresolved Issues:

There are a few issues that remain unresolved at the time of the preparation of this Second Draft EIS. They relate to the level of regional transportation improvements required to service the project, final approval of the Archaeological Inventory Surveys that have been submitted to SHPD, and whether the project will include a regional hospital as proposed. Unresolved issues are summarized in Chapter 8 and are expected to be resolved prior to implementation of the proposed action.

Compatibility with Land Use Plans and Policies:

The project is generally compatible with and supportive of relevant State and County land use policies, plans and controls, as described in Chapter 5. The Kona CDP has identified Kaloko Makai as a site for a Neighborhood Transit Oriented Development (TOD) on the Official Kona Land Use Map.

Listing of Permits or Approvals:State of Hawai'i

Land Use Commission

- State Land Use District Boundary Amendment

Department of Health (DOH)

- Approval of Wastewater Treatment Facility
- National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Associated with Construction Activity
- NPDES Individual Permit for Storm Water Associated with Construction Activity
- NPDES for Hydrotesting
- NPDES for Dewatering
- Noise Permits
- Air Quality Permits
- Underground Injection Control Permits
- Certificate of Need (for medical facilities)
- Approval of private water system / desalination system

Department of Land and Natural Resources (DLNR)

- Trail Crossings

DLNR, Commission on Water Resource Management (CWRM)

- Well Construction and Pump Installation Permits

DLNR, State Historic Preservation Division (SHPD)

- Chapter 6E, HRS Historic Preservation

Department of Transportation (DOT)

- Permits to Perform Work Within State Right-of-Way

County of Hawai'i

Planning Department

- Project District Rezoning
- Subdivision
- Kona CDP Design Center
- Plan Approval

Department of Public Works

- Grading, Grubbing and Stockpiling Permits
- Building Permits
- Permit to Perform Work within County Right-of-Way

Other

Utility Companies

Utility Service Requirements
Permits Regarding Work on Utility Lines

PREFACE

This Environmental Impact Statement (EIS) is prepared pursuant to Chapter 343, Hawai'i Revised Statutes (HRS), and Title 11, Chapter 200, Hawai'i Administrative Rules, Department of Health, State of Hawai'i. Proposed is an Applicant action by SCD – TSA Kaloko Makai, LLC to develop Kaloko Makai, an approximately 1,139 acre master planned community in Kaloko and Kohanaiki, North Kona, Island of Hawai'i.

Kaloko Makai will be a compact, mixed-use village that integrates diverse housing offerings, mixed-use commercial and retail growth and employment opportunities, and a range of community services and facilities (inclusive of medical, lodging, and civic uses as well as recreational opportunities). Kaloko Makai will be a “Transit Oriented Development” (TOD) and “Traditional Neighborhood Design” (TND) community consistent with the Guiding Principles and Elements of the Kona Community Development Plan. The central TOD village is designed around a transit station and made up of three neighborhoods, centered on venues of community-wide importance (such as the potential regional hospital and/or schools/parks). Kaloko Makai also includes a TND neighborhood mauka of the central TOD village. The two areas will be linked through interconnecting roads and trails. A Special District light industrial area is located along Queen Ka'ahumanu Highway (makai of the central TOD village).

The proposed project is situated on lands within the State Land Use Conservation, Agricultural, and Urban Districts, necessitating a petition for State Land Use District Boundary Amendment to Urban for that portion of the project area that is not currently within the State Land Use Urban District. Reclassification from the Conservation and Agricultural Districts to the Urban District is being sought, to be followed by a County of Hawai'i Project District Rezoning. Approximately 190 acres of Urban District lands within TMK parcel (3) 7-3-009:025 were reclassified in the 1980's for golf use (this project was abandoned), and a Motion to Amend Conditions for this area will be processed with the State Land Use Commission to conform the proposed development of these existing Urban District lands with the proposed development of the Petition Area.

In accordance with HRS Chapter 343, HRS, privately initiated EIS documents must be accepted by the government agency empowered to issue a permit or approval for the proposed project. For Kaloko Makai, the State of Hawai'i Land Use Commission is anticipated to be the accepting authority since a State Land Use District Boundary Amendment is the first approval being sought for the Kaloko Makai project.

The preparation of this EIS is being undertaken to address the proposed reclassification of the Conservation District lands, possible use of State lands or funds, anticipated use of County lands and/or funds in connection with development of project elements, including, but not limited to, roadway, traffic, water, sewer, utility and drainage facilities affecting State and/or County roadways or other lands, and anticipated trail crossings, and the construction of a wastewater treatment plant. While the specific nature of each improvement is not known at this time, the EIS is intended to address all current and future instances involving the use of State and/or County lands or funds relating to the project.

A previous Draft EIS for this project was prepared and its notice of availability for public review and comment was published in the August 8, 2011 issue of the Office of Environmental Quality Control's (OEQC) *The Environmental Notice*. The public comment period for that Draft EIS ended on September 21, 2011.

Subsequent to the public comment period for the 2011 Draft EIS, certain aspects of the project description changed, and additional studies were undertaken. Therefore the Applicant prepared this Second Draft EIS to address those changes and to provide an additional opportunity for agency and public review and comment. Specifically, the following changes are reflected in this Second Draft EIS:

First, the Applicant reduced the size of commercial/retail space from 1.1 million square feet to approximately 600,000 square feet. Although the market study included with the 2011 Draft EIS demonstrated a demand for the originally proposed 1.1 million square feet, the Applicant has chosen to reduce that component of the project to 600,000 square feet.

Second, the approximately 18-acre off-site potable well field mauka of Kaloko Makai is no longer being considered as a potential alternative water source for the project and has been eliminated.

Third, the originally proposed "Petition Area" for Land Use Commission reclassification has been reduced from 948.866 acres to 798.866 acres. Excluded is the 150 acres of dryland forest, which will remain in the Agricultural District .

Fourth, the Applicant has modified the project design to avoid any "take" of listed endangered and threatened plant species. This eliminates the need to prepare a Habitat Conservation Plan (HCP) and obtain an Incidental Take License (ITL).

Finally, in accordance with information provided by the County of Hawai'i, the Traffic Impact Assessment Report assumes that Ane Keohokālole Highway from Hina Lani Street to Kaiminani Drive (Phase III) would be completed by 2028.

Toward incorporating these changes in this Second Draft EIS, supporting studies were updated, as needed, and will be appended to the document. Responses to comments received on the 2011 Draft EIS have been prepared in the context of preparing this Second Draft EIS and have been distributed, with copies appended herein, in Appendix S.

1. INTRODUCTION AND SUMMARY

This Second Draft EIS is prepared pursuant to Chapter 343, HRS, and Title 11, Chapter 200, Hawai'i Administrative Rules (HAR), Department of Health, State of Hawai'i. Proposed is an Applicant action by SCD – TSA Kaloko Makai, LLC to develop Kaloko Makai, an approximately 1,139 acre master planned community in Kaloko and Kohanaiki, North Kona, Island of Hawai'i.

1.1 PROFILE

Project Name:	Kaloko Makai
Location:	Kaloko and Kohanaiki, North Kona, Island of Hawai'i
Petitioner/Applicant:	SCD – TSA Kaloko Makai, LLC
Tax Map Key (TMK):	(3) 7-3-009: 017, 025, 026, 028 and 063
Land Area:	1,138.866 acres
Petition Area:	798.866 acres
Existing Use:	Vacant, undeveloped open land with lava and scrub vegetation
Proposed Action:	Kaloko Makai will be a compact, mixed-use village that integrates diverse housing offerings, mixed-use commercial and retail growth and employment opportunities, and a range of community services and facilities (inclusive of medical, lodging, and civic uses as well as recreational opportunities). Kaloko Makai will be a TOD and TND community consistent with the Guiding Principles and Elements of the Kona Community Development Plan. The central TOD village is designed around a transit station and made up of three neighborhoods, centered on venues of community-wide importance (such as the potential regional hospital and/or schools/parks). An additional TND neighborhood mauka of the central TOD village will be linked to the central TOD through interconnecting roads and trails. A Special District light industrial area located along Queen Ka'ahumanu Highway (makai of the central TOD village).
Existing Land Use Designation:	(3) 7-3-009:017 – 224.430 acres State Land Use: Conservation Subzone: General General Plan LUPAG: Urban expansion Kona Community Development Plan: Kona Urban Area Zoning: Open

- NPDES General Permit for Storm Water Associated with Construction Activity
- NPDES Individual Permit for Storm Water Associated with Construction Activity
- NPDES for Hydrotesting
- NPDES for Dewatering
- Noise Permits
- Air Quality Permits
- Underground Injection Control Permits
- Certificate of Need (for medical facilities)
- Approval of private water system / desalination system

Department of Land and Natural Resources (DLNR)

- Trail Crossings

DLNR, Commission on Water Resource Management (CWRM)

- Well Construction and Pump Installation Permits

DLNR, State Historic Preservation Division (SHPD)

- Chapter 6E, HRS Historic Preservation

Department of Transportation (DOT)

- Permits to Perform Work Within State Right-of-Way

County of Hawai'i

Planning Department

- Project District Rezoning
- Subdivision
- Kona Design Center
- Plan Approval

Department of Public Works

- Grading, Grubbing and Stockpiling Permits
- Building Permits
- Permit to Perform Work within County Right-of-Way

Other

Utility Companies

Utility Service Requirements

Permits Regarding Work on Utility Lines

Accepting Authority:

State of Hawai'i Land Use Commission

Parties Consulted**During EISPN Process:**Federal

U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service
U.S. Geological Survey
U.S. Department of Agriculture Natural Resources Conservation Service
U.S. National Park Service, Kaloko-Honokohau National Historical Park
U.S. National Park Service, Ala Kahakai National Historic Trail
Federal Highway Administration

State of Hawai'i

Department of Agriculture
Department of Business Economic Development & Tourism (DBED&T) Land Use Commission
DBED&T Office of Planning
DBED&T Housing and Community Development Corporation of Hawai'i
DBED&T Energy, Resources and Technology Division
Department of Land and Natural Resources (DLNR)
DLNR, State Historic Preservation Division
Department of Health (DOH)
Office of Environmental Quality Control (OEQC)
Department of Education (DOE)
Department of Transportation (DOT)
Office of Hawaiian Affairs (OHA)
Department of Agriculture (DOA)
Department of Hawaiian Home Lands (DHHL)
University of Hawai'i at Manoa (UHM) Environmental Center

County of Hawai'i

Office of the Mayor
Planning Department
Planning Department, Kona CDP Action Committee
Planning Department, Kona CDP Design Center
Department of Water Supply
Department of Public Works
Department of Parks and Recreation
Department of Environmental Management
Department of Public Works
Civil Defense Agency
Police Department
Fire Department

Elected Officials

Councilmember Brenda Ford, District 7
 Former Councilmember Angel Pilago, District 8
 Senator Josh Green, M.D., District 3
 Representative Denny Coffman District 6
 Representative Robert Herkes, District 5

Public Utility Agencies

Hawai'i Electric Light Company
 Hawaiian TelCom
 Oceanic/Time-Warner Cable

Organizations

Hawai'i Leeward Planning Conference
 Kona Hawaiian Civic Club
 Kona Outdoor Circle
 Kona Traffic Safety Committee
 Kona-Kohala Chamber of Commerce
 Na Kokua Kaloko-Honokohau
 Peoples Advocacy for Trails Hawai'i (PATH)

Parties Consulted**During Draft EIS Process:**Federal

U.S. Army Corps of Engineers
 U.S. Fish and Wildlife Service
 U.S. Geological Survey
 U.S. Department of Agriculture Natural Resources Conservation
 Service
 U.S. National Park Service, Kaloko-Honokohau National Historical
 Park
 U.S. National Park Service, Ala Kahakai National Historic Trail
 U.S. Federal Highway Administration

State of Hawai'i

Department of Agriculture (DOA)
 Department of Business Economic Development & Tourism
 (DBED&T)
 DBED&T, Land Use Commission
 DBED&T, Office of Planning
 DBED&T, Strategic Industries Division
 DBED&T, Housing and Community Development Corporation of
 Hawai'i
 DBED&T, Hawai'i Public Housing Authority
 Department of Defense
 Department of Education
 Department of Human Services

Department of Labor and Industrial Relations
Department of Land and Natural Resources (DLNR)
DLNR, State Historic Preservation Division
Department of Health (DOH)
DOH, Office of Environmental Quality Control (OEQC)
DOH Environmental Planning Office
Department of Transportation
Office of Hawaiian Affairs (OHA)
Department of Hawaiian Home Lands (DHHL)
University of Hawai'i at Manoa (UHM) Environmental Center

County of Hawai'i

Office of the Mayor
Planning Department
Planning Department, Kona CDP Action Committee
Planning Department, Kona CDP Design Center
Department of Water Supply
Department of Public Works
Department of Parks and Recreation
Department of Environmental Management
Department of Public Works
Civil Defense Agency
Police Department
Fire Department
Office of Housing and Community Development

Elected Officials

Councilmember Brenda Ford, District 7
Former Councilmember Angel Pilago, District 8
Senator Josh Green, M.D., District 3
Representative Denny Coffman District 6
Representative Robert Herkes, District 5

Public Utility Agencies

Hawai'i Electric Light Company
Hawaiian TelCom
Oceanic/Time-Warner Cable

Organizations

Hawai'i Leeward Planning Conference
Kona Hawaiian Civic Club
Kona Outdoor Circle
Kona Traffic Safety Committee
Kona-Kohala Chamber of Commerce
Na Kokua Kaloko-Honokohau
Peoples Advocacy for Trails Hawai'i (PATH)

Other

Honolulu Star Advertiser
Hawai'i Tribute Herald
West Hawai'i Today

Library Distribution

Hawai'i State Library
Kailua – Kona Library
Hilo Library
Kaimuki Library
Kāne'ohe Library
Pearl City Library
University of Hawai'i at Mānoa Hamilton Library
University of Hawai'i at Hilo
Legislative Reference Bureau

1.2 APPLICANT

The Applicant is SCD – TSA Kaloko Makai, LLC a Hawai'i limited liability company

Contact: Stanford Carr
Stanford Carr Development, LLC
1100 Alakea Street, 27th Floor
Telephone: (808) 537-5220
Facsimile: (808) 537-1801

1.3 ENVIRONMENTAL CONSULTANT

SCD – TSA Kaloko Makai LLC's environmental planning consultants for Kaloko Makai are Wilson Okamoto Corporation and Ho'okuleana LLC.

Contact: Earl Matsukawa
Tracy Fukuda
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawai'i 96826
Telephone: (808) 946-2277
Facsimile: (808) 946-2253

Peter T. Young
Jennifer Barra
Ho'okuleana LLC
1539 Kanapu'u Drive
Kailua, Hawai'i 96734
Telephone: (808) 226-3567

1.4 ACCEPTING AUTHORITY

In accordance with HRS Chapter 343, HRS, privately initiated Environmental Impact Statement (EIS) documents must be accepted by the government agency administering a permit or approval for the proposed project. For Kaloko Makai, the State of Hawai'i Land Use Commission is anticipated to be the accepting authority since a State Land Use District Boundary Amendment is the first approval being sought for the Kaloko Makai project.

The preparation of this EIS is being undertaken to address the proposed reclassification of the Conservation District lands, possible use of State lands or funds, anticipated use of County lands and/or funds in connection with development of project elements, including, but not limited to, roadway, traffic, water, sewer, utility and drainage facilities affecting State and/or County roadways or other lands, and anticipated trail crossings, and the construction of a wastewater treatment plant. While the specific nature of each improvement is not known at this time, the EIS is intended to address all current and future instances involving the use of State and/or County lands or funds relating to the project.

Contact: Daniel E. Orodenker, Executive Officer
State Land Use Commission
Department of Business, Economic Development & Tourism
P.O. Box 2359
Honolulu, Hawai'i 96804
Telephone: (808) 587-3822
Fax: (808) 587-3827

1.5 COMPLIANCE WITH STATE OF HAWAI'I AND COUNTY OF HAWAI'I ENVIRONMENTAL LAWS

This Second Draft EIS is prepared pursuant to Chapter 343, HRS, and Title 11, Chapter 200, HAR, Department of Health, State of Hawai'i. Proposed is an Applicant action by SCD – TSA Kaloko Makai, LLC to develop Kaloko Makai, an approximately 1,139 acre master planned community in Kaloko and Kohanaiki, North Kona, Island of Hawai'i.

The proposed project is situated on lands within the State Land Use Conservation, Agricultural and Urban Districts, necessitating a petition for State Land Use District Boundary Amendment. Reclassification of the Conservation and Agricultural Districts to the Urban District is being sought, to be followed by a County of Hawai'i Zone Project District Rezoning. Approximately 190 acres of Urban District lands within TMK parcel (3) 7-3-009:025 were reclassified in 1980s for golf use (this project was abandoned), and a Motion to Amend Conditions for this area will be processed with the State Land Use Commission to conform the proposed development of these existing Urban District lands with the proposed development of the Petition Area.

The Environmental Impact statement Preparation Notice (EISPSN) was submitted to the Office of Environmental Quality Control (OEQC) on September 10, 2010. Notice of availability of the EISPN was published in the September 23, 2010 issue of the OEQC's *The Environmental Notice*. Copies of the EISPN were distributed to the appropriate agencies and other organizations (see Chapter 9).

The 30-day public comment period ended on October 23, 2010. Comments and responses on the EISPN were incorporated in the Draft EIS and the letters are included in Appendix R.

A previous Draft EIS for this project was prepared and its notice of availability for public review and comment was published in the August 8, 2011 issue of the Office of Environmental Quality Control's (OEQC) *The Environmental Notice*. The public comment period for that Draft EIS ended on September 21, 2011.

Subsequent to the public comment period for the 2011 Draft EIS, certain aspects of the project description changed, and additional studies were undertaken. Therefore the Applicant prepared this Second Draft EIS to address those changes and to provide an additional opportunity for agency and public review and comment. Specifically, the following changes are reflected in this Second Draft EIS:

First, the Applicant reduced the size of commercial/retail space from 1.1 million square feet to approximately 600,000 square feet. Although the market study included with the 2011 Draft EIS demonstrated a demand for the originally proposed 1.1 million square feet, the Applicant has chosen to reduce that component of the project to 600,000 square feet.

Second, the approximately 18-acre off-site potable well field mauka of Kaloko Makai is no longer being considered as a potential alternative water source for the project and has been eliminated.

Third, the originally proposed "Petition Area" for Land Use Commission reclassification has been reduced from 948.866 acres to 798.866 acres. Excluded is the 150 acres of dryland forest, which will remain in the Agricultural District .

Fourth, the Applicant has modified the project design to avoid any "take" of listed endangered and threatened plant species. This eliminates the need to prepare a Habitat Conservation Plan (HCP) and obtain an Incidental Take License (ITL).

Finally, in accordance with information provided by the County of Hawai'i, the Traffic Impact Assessment Report assumes that Ane Keohokālole Highway from Hina Lani Street to Kaiminani Drive (Phase III) would be completed by 2028.

Toward incorporating these changes in this Second Draft EIS, supporting studies were updated, as needed, and will be appended to the document. Responses to comments received on the 2011 Draft EIS have been prepared in the context of preparing this Second Draft EIS and have been distributed, with copies appended herein, in Appendix S.

1.6 STUDIES CONTRIBUTING TO THIS EIS

A number of specific technical studies were prepared for Kaloko Makai, and the reports are included as appendices to this EIS. These studies include:

- Market Assessment
- Sustainability Plan

- Service Health Care Facilities Forecast
- Groundwater Resource Assessment
- Nearshore Marine Environment Assessment
- Botanical Survey
- Avian and Terrestrial Mammalian Species Survey
- Terrestrial Invertebrate Survey
- Archaeological Inventory Survey: A summary of the Archaeological Inventory Survey (AIS) is included in Appendix I. The AIS consists of seven volumes. The complete report has been filed with the State Historic Preservation Division, State Land Use Commission, Office of Environmental Quality Control, and Office of Hawaiian Affairs.
- Cultural Impact Assessment
- Traffic Impact Assessment Report
- Acoustic Study
- Air Quality Study
- Preliminary Engineering Report
- Economic and Fiscal Impact Assessment
- Social Impact Assessment

1.7 EXECUTIVE SUMMARY

1.7.1 Kaloko Makai

Kaloko Makai is a compact, mixed-use, master-planned community offering a wide range of housing types and affordability, and a variety of businesses and employment opportunities, focused around an initial urgent care medical facility with land available for a new Kona regional hospital.

SCD - TSA Kaloko Makai, LLC proposes to develop Kaloko Makai on approximately 1,139 acres of undeveloped land in Kaloko and Kohanaiki, North Kona, Hawai'i. Kaloko Makai will include the proposed development of up to 5,000 new single- and multi-family residential lots and units at a variety of densities, centralized commercial and neighborhood centers, recreational facilities (e.g. parks, trails, open spaces), urgent care medical facility, hospital, lodge and business center, three school sites, a Dryland Forest Preserve, and associated infrastructure (e.g., new roadways, utilities, drainage, wastewater and potable water distribution systems). Affordable housing will be provided in accordance with County of Hawai'i requirements.

Kaloko Makai has been designated as a Neighborhood Transit Oriented Development (TOD) in the Official Kona Land Use Map of the *Kona Community Development Plan* (County Ordinance No. 08-131, September 2008). As mentioned previously, the Applicant is setting aside land in anticipation of a regional hospital being sited within Kaloko Makai TOD². Whether or not the identified land is developed with a regional hospital, this Second Draft EIS assesses the proposed project as a Neighborhood TOD and not as a Regional TOD, which would allow for greater density (see Chapter 7 for more details).

² Pursuant to Policy ECON-1.1 of the *Kona Community Development Plan*, if a hospital is located within a Neighborhood TOD, that TOD shall automatically be designated a Regional Center TOD.

Kaloko Makai is situated on lands within the State Land Use Conservation, Agricultural and Urban Districts, necessitating a State Land Use District Boundary Amendment to reclassify approximately 949 acres from Conservation and Agricultural Districts to the Urban District, and a subsequent County of Hawai'i Project District Rezoning (see Table 1-1).

Tax Map Key	Total Acres	Existing State Land Use District	Proposed Land Use Reclassification	Acres
(3) 7-3-009:017	224.430	Conservation	Urban	224.430
(3) 7-3-009:025	360.131	Agricultural	Urban	170.131
		Urban (190-acres)	---	---
(3) 7-3-009:026	194.324	Agricultural	Urban	194.324
(3) 7-3-009:028	313.112*	Agricultural	Urban	163.112
(3) 7-3-009:063	46.869	Agricultural	Urban	46.869
Total Petition Area				798.866

* At least 150 acres of Dryland Forest will remain in Agricultural District.

1.7.2 Summary of Potential Impacts and Proposed Mitigation Measures

The Kaloko Makai project was conceived, planned and designed to be consistent with the Hawai'i County *General Plan*, the *K-to-K Plan* and the *Kona Community Development Plan* (Kona CDP). Over the 30-year projected development schedule, 5,000 homes will be integrated into transit- and pedestrian-oriented urban and traditional neighborhood centers. Interconnecting the communities is the historic Kohanaiki Trail, which runs mauka-makai through the entire length of the project, providing pedestrian access throughout the project.

Appropriate mitigation measures have been incorporated into the overall community planning. For areas of particular concern, the following summarizes mitigation measures recommended or planned to minimize or mitigate potential adverse impacts.

Groundwater Resources and Nearshore Marine Environment – Kaloko Makai is not anticipated to impact groundwater, marine waters or ocean biology, as noted in the conclusions of groundwater and marine water analysis reports that prepared on behalf of the project. This conclusion is based on analysis of potential impacts of Kaloko Makai's proposed water, wastewater, irrigation (including fertilizer application) and drainage systems. Sections 3.5 and 4.10 contain further discussion, as well as the documents in the Appendices C and D.

Flora – The Kaloko Makai property has been the subject of numerous botanical surveys over the years. Based on these surveys, four listed endangered plant species are found within the project site.

- 'aiea (*Nothocestrum breviflorum*)
- hala pepe (*Pleomele hawaiiensis*)
- uhiuhi (*Caesalpinia kawaiiensis*)
- ma'aloa (*Neraudia ovata*)

In addition, the plant ko'oko'olau (*Bidens micrantha ssp. Ctenophylla*), which is proposed for listing as an endangered species, is located within portions of the Kaloko Makai property.

Kaloko Makai anticipates that no listed endangered plants will be "taken" in the development and construction of the Kaloko Makai project.

As part of the project proposal, at least 150-acres will be set aside as the Kaloko Makai Dryland Forest Preserve, in Phase 1 of the project. Through the establishment of this Preserve, a variety of species will have continued permanent protection and their habitat set aside, in perpetuity.

Three individual endangered plants (two hala pepe and one 'aiea) found outside the Dryland Forest Preserve will be buffered by setbacks and enclosures (fence/wall).

Section 3.6 contains further discussion. Botanical surveys are included as Appendix E and G.

Fauna/Invertebrates – No avian species currently listed as endangered, threatened, or proposed for listing under either the federal or the State of Hawai'i's endangered species programs were observed during the course of the survey.

No invertebrate currently listed as endangered or threatened under either federal or state statutes was located within the survey area.

Section 3.7 contains further discussion. Avian and terrestrial mammalian species surveys, as well as a terrestrial invertebrate survey are included as Appendixes F, G and H.

Archaeological Resources – A total of 341 archaeological sites were identified in the course of the archaeological inventory survey work that was conducted between March 2007 and April 2008 (59 sites in TMK 17, 121 sites in TMK 25, 120 sites in TMK 26 and 41 sites in TMK 28). Based on historic background literature and previous archaeological studies, the site density appears consistent with general ideas about settlement of this area with site density increasing substantially in the mauka portions of the project area.

The types, functions and distribution of sites present match closely to the anticipated finds for the Intermediate and Upland zones of the Kekaha region of North Kona. The lands of Kekaha contain three general terrestrial zones that directly influenced land usage of prehistoric and historic populations. These three zones include: 1) Coastal; 2) Intermediate or Transitional and; 3) Upland.

There are a total of sixty-five (65) confirmed burials at more than thirty sites (55% of these are located in parcel 26.) All of the confirmed and suspected burials will be preserved pursuant to a burial treatment plan prepared in consultation with recognized descendants and the Hawai'i Island Burial Council. The other preservation sites will be treated in accordance with a preservation plan

submitted to and approved by State Historic Preservation Division (SHPD) prior to final subdivision approval. Section 4.1 contains further discussion. A summary of the archaeological inventory survey is included as Appendix I. As previously noted, the AIS consists of seven volumes. The complete report was filed with the State Historic Preservation Division on October 30, 2008 with copies distributed to the State Land Use Commission, Office of Environmental Quality Control, and Office of Hawaiian Affairs.

Cultural Resources – With the possible exception of intermittent gathering of plant materials, there are no other traditional or customary native Hawaiian rights being exercised within the project area. The historic Kohanaiki Trail (Road to the Sea) runs through (*mauka-makai*) the entire length of the project; it will be restored and will interconnect the communities within the project. Section 4.2 contains further discussion. A cultural impact assessment is included as Appendix J.

Trails and Access – Kohanaiki Trail is a long mauka/makai trail originating in the Kohanaiki Homesteads. Generally, the trail parallels the nearby Kaloko/Kohanaiki ahupua'a wall, on the Kohanaiki side. The mauka-makai alignment ("footprint") of the Trail shall be open for public use and retained in perpetuity. The Trail will be at least 10-feet wide and will be bordered by perpetual open space buffers of at least 10-feet wide on each side. In combination with the buffers, the total width of this perpetual public right of way will be at least 30-feet throughout its length across Kaloko Makai. Kaloko Makai proposes to incorporate the trail into the Kaloko Makai project, interconnecting the communities and providing pedestrian access throughout the project. Section 4.3 contains further discussion.

Traffic – Consistent with the policies of the Kona CDP, Kaloko Makai will develop the TOD and TND following the Village Design Guidelines that promote transit-oriented and pedestrian oriented development, increase in transit use and management of traffic congestions.

Major roadways providing access to the project site include Queen Ka'ahumanu Highway, Hina Lani Street and Māmalahoa Highway (Hawai'i Belt Road). Ane Keohokālole Highway will bisect the property and the TOD transit station will be located within Kaloko Makai on this road corridor.

The TOD and TND within Kaloko Makai are compact mixed-use villages, characterized by a village center within a higher-density urban core, roughly equivalent to a 5-minute walking radius (1/4 mile), surrounded by a secondary mixed-use, mixed-density area with an outer boundary roughly equivalent to a 10-minute walking radius from the village center (1/2 mile.)

Utilizing the Village Design Guidelines Kaloko Makai will minimize motor vehicle activity on area roads, as many essential services needed by Kaloko Makai residents will be within walking and biking distance. Section 4.4 contains further discussion regarding traffic and a traffic impact assessment report is included as Appendix K.

The project will increase traffic demands and congestion in the project area. The cumulative increase in traffic demands including those generated by Kaloko Makai, other projects in the vicinity or local roads during peak travel periods is assessed in Section 4.4. Mitigation measures to address cumulative traffic impacts are recommended.

Noise – In the short-term, construction noise will be unavoidable during the duration of the construction of the proposed project. Operation of construction equipment and vehicles will raise ambient noise levels in the project vicinity. Mitigation measures such as the use of properly muffled construction equipment and incorporation of DOH construction noise limits pursuant to the provisions of the State DOH Administrative Rules, Title 11, Chapter 46, Community Noise Control are applicable to the project. In the long-term, traffic-generated noise to the community will be mitigated by adequate setbacks from the highway, in conformance with federal highway standards, sound attenuating walls, total closure and air-conditioning, in addition to the utilization of sound attenuating windows and window fixtures. Section 4.5 contains further discussion. An acoustic study is included as Appendix L.

Existing and future residences which are located along the Hina Lani Street, between Māmalahoa Highway and Queen Kaʻahumanu Highway, may be impacted by the future traffic noise along the roadway if setback distances from roadway centerline are less than 223 feet. As traffic noise along public roadways such as Hina Lani Street is generated by non-project as well as project traffic, mitigation of off site traffic noise impacts are generally performed by individual property owners along the roadways' rights-of-way or by public agencies during roadway improvement projects. These mitigation measures ordinarily take the form of increased setbacks, sound attenuating walls, total closure and air-conditioning, in addition to the utilization of sound attenuating windows and window fixtures. Where adequate setbacks beyond the 65 DNL noise contour are not available, Kaloko Makai proposes to utilize 6 foot high sound walls as an effective means of traffic noise attenuation for single story structures, or at the ground floors of multistory structures. Along the future Ane Keohokālole Highway, project residences and buildings used by the public will require setback distances in the order of 96 to 103 feet from the centerline of the highway, or sound attenuation walls constructed along the rights-of-way may be required for traffic noise mitigation.

Air Quality - Potential air quality impacts during construction of the project will be mitigated by complying with the State DOH Hawai'i Administrative Rules, Title 11, Chapter 60, Air Pollution. The construction contractor(s) is responsible for complying with the State DOH regulations that prohibit visible dust emissions at property boundaries. Compliance with State regulations will require adequate measures to control airborne dust by methods such as water spraying and sprinkling of loose or exposed soil or ground surface areas and dust-generating equipment, and the use of wind screens in sensitive areas during construction. No significant impacts on air quality are anticipated with appropriate mitigation during the construction phase and no violations of federal and state air quality standards are anticipated in the long-term. An air quality study is included as Appendix M.

Water – Kaloko Makai's water demand will require development of additional water sources, storage and transmission facilities. The Applicant is investigating three alternative sources for potable supply: 1) on-site wells at about the 710-foot elevation on the mauka portion of the project; 2) on-site wells at the 710-foot elevation with reverse osmosis (RO) treatment; and 3) on-site wells at 363-foot elevation with desalinization of saline groundwater. Storage and transmission facilities will also be required. Section 4.10.1 contains further discussion.

Wastewater – An on-site wastewater treatment plant is the preferred alternative for processing Kaloko Makai wastewater. An on-site wastewater treatment plant would be self-sufficient, water efficient, and environmentally sound. The Kaloko Makai facility will treat wastewater to produce

reclaimed water meeting the highest (R-1) water standards for general irrigation within Kaloko Makai, thus reducing the use of potable water for irrigation. Section 4.10.2 contains further discussion.

Drainage – There are no streams or natural drainageways in or near the project site. The surrounding area consists of barren a`ā and pāhoehoe lava fields which are highly permeable. The natural drainage pattern consists of rainfall percolating through layers of very porous lava to the subsurface strata. Stormwater over Kaloko Makai will either percolate directly into the ground (in natural and landscaped areas) or will be collected in a system of catch basins and drain lines and disposed of in drywells located throughout the community. Drainage from Kaloko Makai is not expected to have an adverse effect on groundwater or coastal marine waters. Section 4.10.3 contains further discussion.

Solid Waste – Kaloko Makai will work with the County to identify and implement feasible alternatives for residential curbside collection, including source-separated recyclables. To reduce solid waste generation, Kaloko Makai will incorporate waste diversion and reduction facilities into its design and recycling will be encouraged. Waste that cannot be recycled or incorporated into on-site green waste processing will be disposed of in the Pu`uanahulu landfill. Section 4.10.4 contains further discussion.

Electrical – Electrical power supply for Kaloko Makai will be provided by the existing power grid that traverses through the project site. Kaloko Makai will seek to incorporate alternative energy generation strategies such as use of solar power or photovoltaic systems. Kaloko Makai will also consider possibilities for net energy metering in building design to allow residents and businesses to lower electricity costs and provide energy back into the system. Section 4.10.5 contains further discussion.

Housing – The North Kona area is appropriately seeing urban infill development and proposals, consistent with the 2008 Kona Community Development Plan and the 2010 draft Kona Village Design Guidelines. Kaloko Makai is strategically located along the major regional traffic corridor Queen Ka`ahumanu Highway, between the town of Kailua-Kona and the Kona International Airport. This rapidly developing area comprises the northwestern portion of the North Kona District and is the residential, commercial and industrial heart of West Hawai`i. The area has a long-standing and growing residential base and will continue to be the focus of residential and related development as the Island's population grows.

Currently entitled projects are estimated to yield up to 8,200 of the potential demand for 17,800 housing units in the market area by 2045, if they are built out within this time frame and developed to the maximum levels of their respective current plans and entitlements. Despite an assumed strong and sustained rate of new home production, entitlements within the market area account for only about half the projected need. Therefore, without further land entitlement, the area could still face an approximately 9,600-unit shortage by 2045.

Kaloko Makai will include the proposed development of up to 5,000 new single- and multi-family residential lots and units at low- and medium-densities, centralized commercial and neighborhood centers, recreational facilities (e.g. parks, trails, open spaces), urgent care medical facility, two

elementary schools, a middle school, Dryland Forest Preserve, and associated infrastructure (e.g., new roadways, utilities, drainage, wastewater and potable water distribution systems). Affordable housing will be provided in accordance with County of Hawai'i requirements. Section 4.9.3 contains further discussion.

Economic and Fiscal – Kaloko Makai would generate significant, on-going economic and fiscal benefits for residents of Hawai'i, as well as for the County and State governments. Development of facilities would generate employment and consequent income and taxes. In addition, by attracting new residents to the Island of Hawai'i and generating additional real estate sales activity, the Project is expected to support long-term impacts, including additional consumer expenditures, employment opportunities, personal income and government revenue enhancement. Specifically, Kaloko Makai will contribute: 1) approximately 3,100 direct FTE jobs on-site at its retail, office, industrial, lodge, and medical-related facilities, 2) roughly \$8.8 million per year in net additional county revenues upon completion, 3) an estimated \$4.9 to \$6.2 million per year net additional state revenues during build out, with net additional revenues of some \$2.8 million per year after 2045. Section 4.9.2 contains the full discussion.

Public Services – Kaloko Makai will contribute to increased State and County tax revenues in the form of increased property, general excise and increased income taxes from increased employment. Section 4.10 contains further discussion.

1.7.3 Relationship to Land Use Policies

State Land Use Law, Chapter 205, Hawai'i Revised Statutes – The Property is currently in the State Urban, Agricultural and Conservation land use districts, necessitating a State Land Use District Boundary Amendment to reclassify approximately 798.866 acres from Conservation and Agricultural Districts to the Urban, and a subsequent County of Hawai'i Project District Rezoning. Section 5.1.2 contains further discussion.

Coastal Zone Management Act, Chapter 205A, Hawai'i Revised Statutes – The Coastal Zone Management (CZM) Area as defined in Chapter 205A, HRS, includes all the lands of the State. As such, the Property is within the Coastal Zone Management Area. The Property is not located within the County's Special Management Area. Section 5.1.3 contains discussion of Kaloko Makai's consistency.

Hawai'i State Plan, Chapter 226, Hawai'i Revised Statutes – The *Hawai'i State Plan* (Chapter 226, HRS), establishes a set of goals, objectives, and policies that serve as long-range guidelines for the growth and development of the State. Development of Kaloko Makai serves to implement many of the goals, objectives, and policies set forth by the Hawai'i State Plan. Section 5.1.4 contains further discussion.

State Functional Plans – The *Hawai'i State Plan* directs State agencies to prepare functional plans for their respective program areas. There are 13 state functional plans that serve as the primary implementing vehicle for the goals, objectives and policies of the *Hawai'i State Plan*. Section 5.1.5 contains discussion of Kaloko Makai's consistency.

County of Hawai'i General Plan – The County of Hawai'i's *General Plan* is the policy document for the long-range comprehensive development of the island of Hawai'i. The General Plan designation for the Kaloko Makai site is "Urban Expansion" and "Conservation" (150-acre Native Dryland Forest.) The Urban Expansion Area "allows for a mix of high density, medium density, low density, industrial, industrial-commercial and/or open designations in areas where new settlements may be desirable, but where the specific settlement pattern and mix of uses have not yet been determined." The 150-acre Native Dryland Forest will be preserved. Section 5.2.1 contains discussion of Kaloko Makai's consistency.

Keāhole to Kailua Development Plan - The *Keāhole to Kailua Development Plan ("K-to-K Plan")* identifies the Keāhole to Kailua area was a major future urban growth area and they recognized the need for such a plan to serve as an implementing tool for the General Plan of the County of Hawai'i. The K-to-K Plan notes land uses in the area of the proposed Kaloko Makai project are Residential, Urban Expansion and Golf Course. Section 5.2.2 contains discussion of Kaloko Makai's consistency.

Kona Community Development Plan – The Kona Community Development Plan (CDP) is a long-term plan whose purposes include to: Articulate Kona's residents' vision for the North and South Kona districts; Guide and accommodate regional growth and development; Provide a feasible plan to improve existing infrastructure and support future growth; Direct growth to appropriate areas; Create a partnership plan of action to improve the quality of life in Kona and Monitor the progress and effectiveness of the plan. Section 5.2.3 contains discussion of Kaloko Makai's consistency.

The Kona CDP responds to the effects of rapid growth in the community and directs growth in Kona to the Urban Area (UA). Within this Kona UA, growth would be directed to compact villages located along proposed transit routes or to infill areas within, or adjacent to, existing development. The general locations of these villages are within the TODs. The Official Kona Land Use Map defines the Kona UA and the general locations, spacing and type of TOD Villages.

The Kaloko Makai project has been designated as a Neighborhood TOD in the Official Kona Land Use Map. The Applicant is setting aside land in anticipation of a regional hospital being sited within Kaloko Makai TOD. Kona CDP economic policy ECON-1.1 at page 4-128 states that, if the land is developed with a regional hospital the Neighborhood TOD at Kaloko Makai shall be designated as a Regional Center TOD. However, the proposed project will be designed and assessed herein as a Neighborhood TOD.

County of Hawai'i Zoning – The existing Hawai'i County zoning for the Kaloko Makai project does not permit the proposed uses; therefore, a Change of Zone request will be submitted to the County of Hawai'i to change the zoning to Project District (PD). Section 5.2.4 contains further discussion. Section 5.2.4 contains discussion of Kaloko Makai's consistency.

1.7.4 Required Permits and Approvals

Permit/Approval	Responsible Agency	Status	Anticipated Submittal Date
State Land Use District Boundary Amendment	State Land Use Commission (LUC)	Petition previously filed; processing on hold until EIS process completed.	--
Project District Rezoning Application	County Planning Department (PD)	Application to be filed following LUC acceptance of the EIS	Second Qtr. 2014
State Land Use District Boundary Amendment	State LUC	Motion to Amend to be filed.	Third Qtr. 2014
Subdivision Approval	County PD	Application to be submitted after the Project District Rezoning application is approved.	First Qtr. 2016
Plan Approval	County PD	Application to be filed after the Project District Rezoning and bulk lot Subdivision application is approved.	Third Qtr. 2016
NPDES Individual Permit	State Department of Health (DOH)	Application to be submitted prior to Building/Grading Permits.	2017
Grading/Building Permits	County Department of Public Works	Application to be filed after the Project District Rezoning and prior to any ground disturbance.	2017
Approval for Wastewater Treatment Facility	State DOH	Application to be filed after the Project District Rezoning and Plan Approval application is approved.	2017
Well Construction/Pump Installation Permits	State Commission on Water Resource Management	Application to be filed prior to start of well construction.	2017
Underground Injection Control Permit	State DOH	Application to be filed after the Project District Rezoning and prior to installation of dry wells.	2017
Permit to Perform Work within a State Right-of-Way	State Department of Transportation	Application to be filed after the Project District Rezoning and prior to start of construction.	2017
Permit to Perform Work within a County Right-of-Way	County Department of Public Works	Application to be filed after the Project District Rezoning and prior to start of construction.	2017
Certificate of Need (for medical facilities)	State DOH	Several entities have been pursued to partner with on the hospital facility.	--
Approval of private water system / desalination system	State DOH	Application to be filed after Project District Rezoning and Plan Approval application is approved.	2017
Air Quality Permits	State DOH	Prior to start of construction.	2017
Noise Permits	State DOH	Prior to start of construction.	2017

1.7.5 Alternatives

The alternatives that have been considered are:

1. No Action
2. Neighborhood TOD (Without hospital and 600,000 sq. ft. of commercial use)
3. Neighborhood TOD with Maximum Density Permitted Under Kona CDP Guidelines
4. Existing Zoning (5-acre Agricultural Lots, Golf, Conservation)
5. Conventional Subdivision Development (5-units/acre; Some Commercial and Industrial)
6. Alternate Location

See Chapter 7 for further discussion of the alternatives.

1.7.6 Cumulative and Secondary Impacts

Cumulative and secondary impacts are impacts that may result from other reasonably foreseeable actions within the area, regardless of who initiates the action. To assess the cumulative and secondary impacts of Kaloko Makai in context with other proposed projects in the region, projects proposed on property currently within the State Urban District were used as the basis of reasonably anticipated development in the area.

Cumulative and secondary impacts resulting from these projects, along with the Kaloko Makai, are likely to include increased traffic and greater demands on public infrastructure systems and services. Chapter 8 discusses cumulative and secondary impacts.

1.7.7 Rationale for Proceeding with Kaloko Makai Notwithstanding Unavoidable Effects

In light of the above-mentioned potential impacts, Kaloko Makai should proceed because adverse impacts can be mitigated and are offset by substantial positive factors, including:

- Compliance with the *County of Hawai'i General Plan* (February 2005), which designates the Kaloko Makai property for Urban Expansion.
- Compliance with the *County of Hawai'i Kona Community Development Plan* (September 2008), which designates the site as part of the Kona UA and as a TOD; consistency with the vision, principles and goals of the Kona CDP.
- Substantial consistency with policies of the *Hawai'i State Plan*, State Functional Plans, and the Coastal Zone Management Act.
- Approximately 5,000 new single-family and multi-family home in a live-work-play environment to meet island-wide housing needs
- Homes for a variety of income ranges, including affordable housing
- Medical facilities, possibly to include a hospital, and related jobs
- Construction and related jobs
- School sites
- Recreational resources

- Preservation and restoration of the Kohanaiki Trail and the preservation of archaeological and cultural sites, including burials.
- The provision of diverse housing opportunities makai of Queen Ka'ahumanu Highway.
- The public benefit of setting aside the 150-acre Dryland Forest as a preserve.
- The wages, taxes and overall positive economic impacts of Kaloko Makai.

1.7.8 Unresolved Issues

There are three issues that remain unresolved at the time of the preparation of this Second Draft EIS. They are summarized below and are expected to be resolved prior to implementation of the proposed action.

Transportation Improvements – The project will increase traffic demands and congestion in the project area. The cumulative increase in traffic demands, including those generated by Kaloko Makai and other projects in the vicinity on local roads during peak travel periods is assessed in Section 4.4. Mitigation measures to address cumulative traffic impacts are recommended. The configurations of those improvements, timing of completion and allocation of funding for these improvements are unresolved.

The general configuration of the project's internal roadways is known, but the precise roadway design standards that will be applicable to the internal roadway network within Kaloko Makai have not been finalized by the County of Hawai'i Planning Department and Department of Public Works. As a compact, mixed-use TOD, Kaloko Makai should be designed to be consistent with the Kona CDP and related Village Design Guideline. However, those Guidelines have somewhat different standards than those used more generally by the County Department of Public Works. Prior to project development, Applicant will obtain County approval of the internal roadways.

Archaeological and Historic Resources – The archaeological surveys were submitted to SHPD for review in October 2008. At the time of the preparation of this Second Draft EIS, SHPD was still reviewing the archaeological inventory surveys.

Type of Transit Oriented Development Village – According to the Kona CDP Official Land Use Map, Kaloko Makai is designated as a Neighborhood Village.

An economic policy noted in the Kona CDP (ECON-1.1) incentivizes a hospital as a stimulus for the healthcare industry. Kona needs a new hospital to replace its existing outdated and out-of-place facility. The new hospital should be located on the Ane Keohokālole Highway (mid-level road) for optimum accessibility by automobile or transit in this future growth area.

The commercial land use allowed under the Neighborhood TOD is sufficient to accommodate a variety of retail and office uses. If a hospital is situated within the project, medical offices and other hospital-related businesses will be developed in the vicinity. If the hospital is not located within the project, the commercial uses will address local retail and office demand.

Applicant has offered to provide 40 acres of land located along Ane Keohokālole Highway for the development of a regional hospital. Applicant will not be developing the hospital, but several

entities have been approached to undertake the development. Applicant will continue to pursue a hospital developer, and will continue dialog with those entities on the potential development of the new regional hospital/medical center at Kaloko Makai.

On May 23, 2011, Stanford Carr sent a letter to Bruce Anderson, CEO of Hawai'i Health Systems Corporation offering 40-acres of land to the appropriate entity to build and operate a hospital. In part, that letter stated, "This letter is to confirm that SCD - TSA Kaloko Makai LLC is willing to convey to the State, HHSC or other appropriate entity, at no cost, 40-acres of land within the Kaloko Makai project for a new regional acute care Hospital." "This proposal does not suggest Kaloko Makai will construct, pay for or operate a Hospital facility. However, Kaloko Makai is prepared to give the 40-acre site within the project for the new hospital facility."

In response to that offer, on July 20, 2011, Bruce Anderson responded to Stanford Carr stating, in part, "On behalf of the Hawaii Health Systems Corporation Board of Directors, I want to express our appreciation and assure you that we are taking your offer seriously and are excited about the prospect of a future new facility at Kaloko Makai. The need for a new facility is recognized in the West Hawaii Region HHSC Strategic plan. The suggested start date for planning such a facility in this plan is 2012. The proposed site is also consistent with the Kona Community Development Plan. Therefore, pursuant to your offer, the HHSC West Hawaii Regional System Board has directed its Strategic Planning Committee to evaluate your offer and the proposed site for a new hospital. "

This page intentionally left blank.