



# **Draft** Final Environmental Impact Statement

# Waikapū Country Town

Submitted Pursuant to
Chapter 343 Hawai'i Revised Statutes
and
Title 11, Hawai'i Administrative Rules

Prepared for: Waikapu Properties, LLC 1670 Honoapiilani Highway Waikapu, Maui, Hawaii Contact: Mike Atherton

Prepared by:



Planning Consultants Hawaii, LLC

This document was prepared under my supervision and the information submitted, to the best of my knowledge, fully addresses document content requirements as set forth in Sections 11-200-17 and 11-200-18 of the Hawai'i Administrative Rules, as appropriate

Michael J. Summer

Michael J. Summers, President Planning Consultants Hawaii, LLC

## **TABLE OF CONTENTS**

l.	INTR	ODUCTION AND SUMMARY	I-1
	A. PURP	OSE OF THE ENVIRONMENTAL IMPACT STATEMENT	l-1
	B. LIST C	F PREPARERS	l-2
	C. PROJE	CT PROFILE	I-4
	1.	Applicant	1-4
	2.	Land Ownership	<i>1-5</i>
	3.	Accepting Authority	<i>I-5</i>
	4.	Project Overview	<i>1-5</i>
	5.	Project Location	1-6
	6.	Tax Map Keys	I-6
	7.	Land Area	I-13
	8.	State Land Use Districts	I-13
	9.	State Land Use District Boundary Amendment (DBA)	I-13
	10. <del>9</del>		I-16
	11. <del>1</del>	<del>10.</del> County Zoning Districts	I-19
	12. <del>-1</del>	1.1. Status of Required State and County Approvals and Permits	I-19
	D. EXECU	JTIVE SUMMARY	I-23
	1.	Project Description	I-23
	2.	Purpose and Need	I-24
	3.	Projected Market Demand	I-25
	4.	Summary of Beneficial and Adverse Impacts and Mitigation Measures	I-26
	a.	Flora and Fauna	I-26
	b.	Air Quality	I-27
	c.	Noise Quality	I-27
	d.	Archaeological Resources	I-28
	e.	Cultural Resources	I-29
	f.	Visual Resources	
	g.	Population	
	h. :	Housing  Economic Impacts	
	i. j.	Fiscal Impacts	
	k.	Public Facilities	
	I.	Traffic	

		m.	. Utilities and Energy	I-36
		n.	Drainage	I-36
		o.	Water	I-37
		p.	Wastewater	I-38
	5.		Cumulative and Secondary Impacts	I-39
	6.		Consistency with State and County Plans and Policies	I-39
		a.	State Land Use Law, Chapter 205,HRS	I-39
		b.	Coastal Zone Management Act, Chapter 205A, HRS	1-4(
		c.	Hawai'i State Plan, Chapter 226, HRS	I-4(
		d.	State Functional Plans	I-4(
		e.	County of Maui General Plan	I-40
			1) Countywide Policy Plan	I-40
			2) Maui Island Plan	I-41
			3) Wailuku-Kahului Community Plan	I-42
			4) County of Maui Zoning	I-42
	7.		Alternatives Considered	I-42
	8.		Unresolved Issues	I-42
II.	PI	LAN	NNING CONTEXT	II-1
			PRICAL LAND USE	
			NG LAND USE	
(	C. SIT	TE P	HOTOGRAPHS	11-5
ı	). M	AUI	ISLAND PLAN DIRECTED GROWTH PLAN	11-5
ı	E. PR	ROJE	CTED MARKET DEMAND	II-23
III.	D	ESC	CRIPTION OF THE PROJECT	III-1
,	A. PL	JRP	OSE AND OBJECTIVES	III-1
ı	3. M	AST	ER PLAN CONCEPT	
	1.		Land Use Plan	III-6
	2.		Neighborhood Pattern and Urban Design Character	111-7
	3.		Transportation Plan	III-25
		a.	Roadway Network	III-25
		b.	Pedestrian Network	III-25
		c.	Bicycle Network	III-28
		d.	Vehicular Parking	III-30
		e.	Pedestrian and Bicycle Crossing of Honoapi'ilani Highway	III-30
		f.	d. Transit Network	III-32

	4	!.	Parks and Open Space Plan	III-35
	5	j.	Agricultural Development Plan	III-37
	6	i.	Sustainability Plan	III-45
	7	<b>'</b> .	Phasing Plan	III-50
	8	8.	Wastewater Treatment Plan	III-55
	9	<del>_Z</del> .	Infrastructure and Public Facility Development Plan	III-63
С	. A	GENC	CY AND COMMUNITY OUTREACH	III-73
D	. R	EQUI	RED ENTITLEMENTS AND APPROVALS	III-75
	1	•	State Land Use District Boundary Amendment (DBA)	III-75
	2	·.	Community Plan Amendment (CPA)	III-75
	3		Change in Zoning (CIZ)	III-76
	4	١.	Environmental Impact Statement (EIS)	III-77
IV.		AF	FECTED NATURAL ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES	IV-1
А	. P	HYSIC	CAL ENVIRONMENT	IV-1
	1		Climate	IV-1
	2		Topography and Soils	IV-2
	3		Natural Hazards	IV-7
	4	١.	Flora and Fauna	IV-15
V.	Α	\FFE(	CTED HUMAN ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES	V-1
А	. н	UMA	N ENVIRONMENT	V-1
	1		Surrounding Land Uses	V-1
	2		Air Quality	V-2
	3		Noise Quality	V-5
	4	١.	Historical and Archaeological Resources	V-10
	5	i.	Cultural Resources	V-20
	6	i.	Visual Resources	V-28
	7	<b>'</b> .	Agricultural Resources	V-39
В		SO	CIO-ECONOMIC ENVIRONMENT	V-48
	1	•	Population	V-48
	2	·.	Housing	V-50
	3		General Economy	V-55
	4	١.	Project Induced Economic Impacts	V-57
	5		Project Induced Fiscal Impacts	V-61
С		PUI	BLIC SERVICES	V-62

1	. Recreational Resources	V-62
2	. Medical Facilities	V-65
3	Police Protection	V-66
4	Fire Protection	V-68
5	Schools	V-69
6	S. Solid Waste	V-73
D.	INFRASTRUCTURE	V-75
1	. Roadways and Traffic	V-75
2	P. Electric, Telephone and Cable TV	V-96
3	B. Drainage	V-97
4	. Water	V-105
5	. Wastewater	V-114
6	5. Airports	V-120
VI.	CONTEXTUAL ISSUES	VI-1
Α.	RELATIONSHIP BETWEEN SHORT-TERM USES AND MAINTENANCE OF LONG-TERM PRODUCTIVITY	VI-1
В.	CUMULATIVE AND SECONDARY IMPACTS	VI-3
C.	IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES	VI-11
D.	OFFSETTING CONSIDERATIONS OF GOVERNMENTAL POLICIES	VI-12
E.	UNRESOLVED ISSUES	VI-13
VII.	RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES, AND CONTROLS	VII-1
A.	STATE LAND USE	VII-1
В.	HAWAI'I STATE PLAN	VII-36
C.	HAWAI'I STATE PLAN PART III. PRIORITY GUIDELINES	VII-70
D.	HAWAI'I STATE FUNCTIONAL PLANS	VII-84
E.	COASTAL ZONE MANAGEMENT	VII-96
1	. Recreational Resources	VII-96
2	P. Historical/Cultural Resources	VII-97
3	3. Scenic and Open Space Resources	VII-98
4	l. Coastal Ecosystems	VII-99
5	Economic Use	VII-100
6	S. Coastal Hazards	VII-103
7	7. Managing Development	VII-103
8	B. Public Participation	VII-104

	9.	Beach Protection	VII-105
	10	). Marine Resources	VII-105
ı	۶.	STATE ENVIRONMENTAL POLICY	VII-106
(	G.	STATE ENVIRONMENTAL IMPACT STATEMENT REQUIREMENTS SIGNIFICANCE CRITERIA	VII-110
ı	Н.	MAUI COUNTY GENERAL PLAN	VII-117
	1.	County-wide Policy Plan	VII-117
	2.	Maui Island Plan (MIP)	VII-166
	3.	Wailuku-Kahului Community Plan	VII-286
ı		COUNTY ZONING	VII-343
J	١.	WATER AVAILABILITY POLICY	VII-347
VIII		ALTERNATIVES ANALYSIS	VIII-1
	1.	No Action Alternative	VIII-3
	2.	Develop Fewer Units	VIII-8
	3.	Develop More Units by Building More Workforce Housing	VIII-12
	4.	Develop at a Lower Density	VIII-15
	5.	Develop at an Alternative Location	VIII-17
	6.	Wastewater Treatment Alternatives	VIII-19
IX.	EI	SPN DISTRIBUTION LIST AND COMMENT LETTERS	IX-1
x.	DI	EIS DISTRIBUTION LIST AND COMMENT LETTERS	X-1
XI.	RI	FERENCES	XI-1
LIS <sup>.</sup>	т Оғ	FIGURES	
FIG	URE	1: REGIONAL LOCATION MAP	I-7
FIG	URE	2: AERIAL LOCATION	I-8
FIG	URE	3, A-D: TAX MAP KEYS	I-9
FIG	URE	4: PETITION AREA ILLUSTRATION	I-14
FIG	URE	5: STATE LAND USE DESIGNATION	I-15
FIG	URE	6, A-B: WAILUKU-KAHULUI COMMUNITY PLAN DESIGNATION	l-17
FIG	URE	7: COUNTY ZONING MAP	I-22
FIG	URE	8, A-N: SITE PHOTOGRAPHS	II-6
FIG	URE	9: MAUI ISLAND PLAN DIRECTED GROWTH MAP	II-21
FIG	URE	10: MAUI ISLAND PLAN WAILUKU/KAHULUI PLANNED GROWTH AREAS	II-22

FIGURE 11, A-B: ILLUSTRATIVE LAND PLAN	III-8
FIGURE 12: ILLUSTRATIVE BIRDSEYE PERSPECTIVE OF MAUKA VILLAGE	III-10
FIGURE 13, A-E: RENDERING KEY, CONCEPTUAL ILLUSTRATIVE RENDERINGS OF VILLAGE LAGOON, MILL HOU	SE
RESTAURANT, AND COUNTRY MARKET	III-11
FIGURE 14: ILLUSTRATIVE RENDERING OF POCKET NEIGHBORHOOD AND PEDESTRIAN PATH	III-17
FIGURE 15: ILLUSTRATIVE RENDERING OF SINGLE-FAMILY NEIGHBORHOOD	-18
FIGURE 16: ILLUSTRATIVE RENDERING OF MIXED-USE NEIGHBORHOOD WITH LIVE-WORK	III-19
FIGURE 17: ILLUSTRATIVE RENDERING OF VILLAGE TOWNHOMES	III-20
FIGURE 18: ILLUSTRATIVE RENDERING OF MAIN STREET	III-22
FIGURE 19, A-B: ILLUSTRATIVE RENDERING OF TOWNHOMES AND COTTAGE RESIDENCES ALONG GREENWAY	'. III-23
FIGURE 20: WCT STREET NETWORK	III-26
FIGURE 21: WCT WALKABILITY DIAGRAM	III-27
FIGURE 22: WCT NON-MOTORIZED PEDESTRIAN AND BICYCLE PATHS	III-29
FIGURE 23: HONOAPI'ILANI AND ARTERIAL PEDESTRIAN CROSSINGS	III-31
FIGURE 24, A-B: CONCEPTUAL HONOAPI'ILANI AND ARTERIAL PEDESTRIAN CROSSING CONCEPTS	III-33
FIGURE 25 <del>23</del> : WCT CONCEPTUAL PARKS AND OPEN SPACE PLAN	III-38
FIGURE 26, A-C <del>-24</del> : CONCEPTUAL AGRICULTURAL MASTER PLAN	III-41
FIGURE 27 <del>25</del> : CONCEPTUAL PHASING PROGRAM	III-54
FIGURE 28: CONCEPTUAL WWRF SITE PLAN	III-56
FIGURE 29: ORGANICA PROCESS DIAGRAM OF FCR PROCESS	III-57
FIGURE 30 A-B: WASTEWATER RECLAMATION FACILITY CONCEPTUAL ILLUSTRATIONS	III-65
FIGURE 31 <del>26</del> : CONCEPTUAL ROADWAY IMPROVEMENT PHASING DIAGRAM	III-67
FIGURE 32 <del>27</del> : CONCEPTUAL WASTEWATER IMPROVEMENT PHASING DIAGRAM	111-68
FIGURE 33, A: CONCEPTUAL POTABLE WATER IMPROVEMENT PHASING DIAGRAM	III-69
FIGURE 33, B: CONCEPTUAL NON-POTABLE WATER IMPROVEMENT PHASING DIAGRAM	III-70
FIGURE 34 <del>29</del> : CONCEPTUAL DRAINAGE IMPROVEMENT PHASING DIAGRAM	
FIGURE 35 <del>30</del> : USDA SOILS MAP	IV-5
FIGURE 36 <del>31</del> , A-F: FLOOD HAZARD ASSESSMENT MAPS	IV-9
FIGURE 37 <del>32:</del> AIS SURVEY MAP	V-11
FIGURE 38 <del>33</del> : HISTORIC PROPERTIES IDENTIFIED DURING AIS	V-18
FIGURE 39 <del>34</del> : MAUI ISLAND PLAN, CONTEXT AND CHARACTER MAP	V-30
FIGURE 40 <del>35</del> , A-E: ILLUSTRATIVE VISUAL SIMULATION OF PRE- AND POST PROJECT VIEWS	V-34
FIGURE 41 <del>36</del> : LAND STUDY BUREAU MAP	V-42
FIGURE 42 <del>37</del> : ALISH MAP	V-43
FIGURE 43 <del>38</del> : STUDY AREA AND ANALYZED INTERSECTIONS	V-76

FIGURE 44 39: STUDY AREA INTERSECTIONS	V-79
FIGURE45 40: EXISTING DRAINAGE PATTERN	V-98
FIGURE 46 41: PROPOSED DRAINAGE SYSTEM IMPROVEMENTS	V-100
FIGURE47, A-B 42: PRIVATE WATER SYSTEM IMPROVEMENTS	V-107
FIGURE 48 43: PREFERRED LOCATION TO DEVELOP ADDITIONAL AFFORDABLE HOUSING	VIII-13
FIGURE 49: ALTERNATIVE SITE "A" FOR WWRF	VIII-42
FIGURE 50: ALTERNATIVE SITE "B" FOR WWRF	VIII-43
LIST OF TABLES	
TABLE 1: PRIME CONSULTANT	I-2
TABLE 2: SUB-CONSULTANTS	I-2
TABLE 3: PROJECT APPLICANT	I-4
TABLE 4: WCT LAND OWNERSHIP	I-5
TABLE 5: STATE OF HAWAI'I, LAND USE COMMISSION	I-5
TABLE 6: PROJECT TAX MAP KEY NUMBERS	I-6
TABLE 7: STATE LAND USE DISTRICTS	I-13
TABLE 8: TMK PARCELS REQUIRING A STATE LAND USE DISTRICT BOUNDARY AMENDMENT	I-16
TABLE 9 8: WAILUKU-KAHULUI COMMUNITY PLAN DESIGNATIONS	I-16
TABLE 10 9: COUNTY ZONING DISTRICTS	I-19
TABLE 11 10: TMK PARCELS REQUIRING A CHANGE IN ZONING REQUIRED STATE AND COUNTY APPROVAL	S AND
PERMITS	I-19
TABLE 12: GOVERNMENTAL APPROVALS AND PERMITS FOR WASTEWATER RECLAMATION FACILITY	I-21
TABLE 13 11: STATE AGRICULTURAL DISTRICT DESIGNATED LANDS	II-4
TABLE 14 12: ESTIMATED ANNUALIZED MID-POINT MARKET ABSORPTION OF RESIDENTIAL PRODUCT	II-26
TABLE 15 13: ESTIMATED ANNUALIZED MID-POINT MARKET ABSORPTION OF COMMERCIAL PRODUCT	II-27
TABLE 16: WCT SUSTAINABILITY GOALS, OBJECTIVES AND STRATEGIES	III-45
TABLE 17 14: PHASE I CONCEPTUAL LAND USE PROGRAM FOR 2017 THROUGH 2021	III-50
TABLE 18 <del>15</del> : PHASE II CONCEPTUAL LAND USE PROGRAM FOR 2022 THROUGH 2026	III-51
TABLE 19 <del>16</del> : CONCEPTUAL DEVELOPMENT PROGRAM FOR 2017 - 2026	III-52
TABLE 20 <del>17</del> : CONCEPTUAL ORDER OF MAGNITUDE COST ESTIMATES	III-63
TABLE 21-18: SCHOOL AND PARK FACILITIES AND COST ESTIMATES	III-72
TABLE 22 19: NEIGHBORHOOD AND AGENCY PRE-CONSULTATION ACTIVITIES	III-73
TABLE 23 <del>20</del> : TMK PARCELS REQUIRING A STATE LAND USE DISTRICT BOUNDARY AMENDMENT	III-75
TABLE 24 21: TMK PARCELS REQUIRING A COMMUNITY PLAN AMENDMENT	III-76
TABLE 25 22: TMK PARCELS REQUIRING A CHANGE IN ZONING	III-76

TABLE 26 <del>23</del> : WAIKAPŪ COUNTRY TOWN SOIL TYPES	IV-3
TABLE 27-24: CONSTRUCTION NOISE SOURCE CONTROL METHODS	V-7
TABLE 28 <del>25</del> : MINIMUM SETBACK DISTANCES TO SATISFY HUD SITE ACCEPTABILITY STANDARDS	V-9
TABLE 29 <del>26</del> : PROJECTED WAILUKU-KAHULUI POPULATION	V-49
TABLE 30: FOR SALE RESIDENTIAL WORKFORCE HOUSING UNITS BY INCOME CATEGORY	V-54
TABLE 31: FOR RENT RESIDENTIAL WORKFORCE HOUSING UNITS BY INCOME CATEGORY	V-54
TABLE 32 <del>27</del> : WCT PROJECTED EMPLOYMENT IMPACTS	V-58
TABLE 33 28: SUMMARY OF ECONOMIC IMPACTS	V-59
TABLE 34 <del>29</del> : SUB-REGIONAL PARKS WITHIN PROXIMITY OF THE WCT	V-62
TABLE 35 30: REGIONAL PARKS WITHIN PROXIMITY OF THE WCT	V-63
TABLE 36 31: CENTRAL MAUI BEACH PARKS WITHIN PROXIMITY OF THE WCT	V-64
TABLE 37 32: FULL-TIME EQUIVALENT POLICE DEPARTMENT PERSONNEL	V-67
TABLE 38 33: BALDWIN-KEKAULIKE-MAUI COMPLEX AREA SCHOOLS	V-70
TABLE 39 34: DOE SCHOOL ENROLLMENT & CAPACITY	V-70
TABLE 40 35: DOE STUDENT GENERATION RATE MULTIPLIERS	V-71
TABLE 41 36: WCT PROJECTED STUDENT GENERATION	V-71
TABLE 42 37: WCT CONSTRUCTION COST IMPACT FEE	V-72
TABLE 43 38: WCT DOE LAND DEDICATION REQUIREMENT	V-72
TABLE 44 39: EXISTING INTERSECTION LEVEL OF SERVICE	V-80
TABLE 45 40: YEAR 2022 LEVELS OF SERVICE – PHASE I	V-83
TABLE 46 41: YEAR 2026 LEVELS OF SERVICE – PHASES I AND II	V-84
TABLE 47 42: YEAR 2026 PROJECT FAIR SHARE INTERSECTIONS TRAFFIC CONTRIBUTIONS	V-90
TABLE 48: TRAFFIC IMPACT WITH AND WITHOUT THE PROJECT AND WITHOUT THE WAI'ALE BYPASS	V-92
TABLE 49 43: PHASE I EXISTING RUNOFF FROM MAUKA AND MAKAI PROJECT SITES	V-99
TABLE 50 44: PHASE II EXISTING RUNOFF FROM MAUKA AND MAKAI PROJECT SITES	V-99
TABLE 51 45: PHASE I PRE- AND POST-DEVELOPMENT RUNOFF FROM MAUKA AND MAKAI PROJECT SITES	V-101
TABLE 52 46: PHASE II PRE- AND POST-DEVELOPMENT FROM MAUKA AND MAKAI PROJECT SITES	V-101
TABLE 53 47: DEPARTMENT OF WATER SUPPLY WATER SYSTEM STANDARDS, 2002	V-110
TABLE 54 48: ESTIMATED DEMAND FOR POTABLE WATER USING A DUAL WATER SYSTEM	V-110
TABLE 55: ESTIMATED DEMAND FOR NON-POTABLE WATER IRRIGATION WATER	V-114
TABLE 56 <del>50</del> : PLANNED URBANIZATION OF CENTRAL MAUI AGRICULTURAL LANDS	VI-6
TABLE 57 51: WCT LAND AREA SUBJECT TO STATE LAND USE DISTRICT BOUNDARY AMENDMENT	VII-1
TABLE 58 <del>52</del> : HAWAI'I STATE PLAN, CHAPTER 226 – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POL	ICIES VII-
36	
TABLE 59 53: HAWAI'I STATE PLAN, CHAPTER 226 – PART III. PRIORITY GUIDELINES	VII-71

TABLE 60 54: HAWAI'I STATE FUNCTIONAL PLANS	VII-84
TABLE 61 55: STATE ENVIRONMENTAL POLICY	VII-107
TABLE 62 <del>56</del> : COUNTYWIDE POLICY PLAN	VII-118
TABLE 63 57: MAUI ISLAND PLAN GOALS, OBJECTIVES AND POLICIES	VII-167
TABLE 64 58: COMPARISON OF THE WCT MASTER PLAN AND MIP GUIDELINES	VII-285
TABLE 65 59: WAILUKU-KAHULUI COMMUNITY PLAN GOALS, OBJECTIVES AND POLICIES	VII-286
TABLE 66: WWRF SITE SELECTION CRITERIA	VIII-44
TABLE 67 60: EISPN DISTRIBUTION LIST AND COMMENT LETTERS	IX-1
TABLE 68: DEIS DISTRIBUTION LIST AND COMMENT LETTERS	X-1

#### LIST OF APPENDICIES

APPENDIX A	MARKET STUDY, ECONOMIC IMPACT ANALYSIS AND PUBLIC FISCAL ASSESSMENT
APPENDIX B	BOTANICAL AND FAUNAL SURVEYS
APPENDIX C	AIR QUALITY STUDY
APPENDIX D	NOISE ASSESSMENT REPORT
APPENDIX E	ARCHAEOLOGICAL INVENTORY SURVEY
APPENDIX F	CULTURAL IMPACT ASSESSMENT
APPENDIX F, A	KA PA`AKAI CULTURAL ANALYSIS
APPENDIX G	AGRICULTURAL IMPACT ASSESSMENT
APPENDIX H	PRELIMINARY ENGINEERING AND DRAINAGE REPORT
APPENDIX I	WATER RESOURCE ASSOCIATES RESULTS OF 10-DAY PUMPING TESTS FOR WELLS 1, 2
	AND 3
ADDENDIVI	FAINWALTH DDCD A DCD "DDCLIA ALNIA DV NA A CTCNA A TCD DCD DT"
<u>APPENDIX J</u>	ENVINITI PREPARED "PRELIMINARY WASTEWATER REPORT"
APPENDIX K	MANA WATER PREPARED "WATER RECLAMATION AND REUSE REPORT FOR WAIKAPŪ
	MANA WATER PREPARED "WATER RECLAMATION AND REUSE REPORT FOR WAIKAPŪ
APPENDIX K	MANA WATER PREPARED "WATER RECLAMATION AND REUSE REPORT FOR WAIKAPŪ  COUNTRY TOWN
APPENDIX <u>L</u> ‡	MANA WATER PREPARED "WATER RECLAMATION AND REUSE REPORT FOR WAIKAPŪ  COUNTRY TOWN  TRAFFIC IMPACT ANALYSIS REPORT
APPENDIX L + APPENDIX M	MANA WATER PREPARED "WATER RECLAMATION AND REUSE REPORT FOR WAIKAPŪ  COUNTRY TOWN  TRAFFIC IMPACT ANALYSIS REPORT  FEHR & PEERS PREPARED "NO WAI'ALE BYPASS ANALYSIS" MEMORANDUM
APPENDIX L +  APPENDIX M  APPENDIX N +	MANA WATER PREPARED "WATER RECLAMATION AND REUSE REPORT FOR WAIKAPŪ  COUNTRY TOWN  TRAFFIC IMPACT ANALYSIS REPORT  FEHR & PEERS PREPARED "NO WAI'ALE BYPASS ANALYSIS" MEMORANDUM  A HISTORY REPORT OF WAIKAPŪ
APPENDIX L +  APPENDIX M  APPENDIX N +  APPENDIX O	MANA WATER PREPARED "WATER RECLAMATION AND REUSE REPORT FOR WAIKAPŪ  COUNTRY TOWN  TRAFFIC IMPACT ANALYSIS REPORT  FEHR & PEERS PREPARED "NO WAI'ALE BYPASS ANALYSIS" MEMORANDUM  A HISTORY REPORT OF WAIKAPŪ  MCC, CHAPTER 2.96 "WORKFORCE HOUSING POLICY"
APPENDIX K  APPENDIX L +  APPENDIX M  APPENDIX N +  APPENDIX O  APPENDIX P K	MANA WATER PREPARED "WATER RECLAMATION AND REUSE REPORT FOR WAIKAPŪ  COUNTRY TOWN  TRAFFIC IMPACT ANALYSIS REPORT  FEHR & PEERS PREPARED "NO WAI'ALE BYPASS ANALYSIS" MEMORANDUM  A HISTORY REPORT OF WAIKAPŪ  MCC, CHAPTER 2.96 "WORKFORCE HOUSING POLICY"  SEPTEMBER 14, 2009 COMMUNITY SURVEY RESULTS

#### **ACRONYMS AND ABBREVIATIONS**

AAQS Ambient Air Quality Standards

Ac acre

ADF Average Daily Flow
ADT Average Daily Traffic

ALISH Agricultural Lands of Importance to the State of Hawai'i

AMI Area Median Income

AMLS Above Mean Sea Level

BMP Best Management Practices

BWS Board of Water Supply (County of Maui)

CDP Census Defined Place
CFS Cubic Feet per Second
CIA Cultural Impact Assessment
CIP Capital Improvement Program

CIZ Change in Zoning
CML Central Maui Landfill

CPA Community Plan Amendment
CSD Conservation Subdivision Design

CWB Clean Water Branch

CWRM Commission on Water Resource Management

CZM Coastal Zone Management

DBA District Boundary Amendment

DBEDT Department of Business, Economic Development and Tourism

(State of Hawai'i)

DBL Decibel Level

DEM Department of Environmental Management (County of Maui)

DEIS Draft Environmental Impact Statement

DHHC Department of Housing & Human Concerns (County of Maui)
DLNR Department of Land and Natural Resources (State of Hawai'i)

DOE Department of Education (State of Hawai'i)

DOFAW State of Hawai'i Division of Forestry and Wildlife

DOH Department of Health (State of Hawai'i)

DPR Department of Parks and Recreation (County of Maui)
DOT Department of Transportation (State of Hawai'i)
DPW Department of Public Works (County of Maui)

DU Dwelling Units

DWS Department of Water Supply (County of Maui)

EA/EISPN Environmental Assessment/Environmental Impact Statement

**Preparation Notice** 

EIS Environmental Impact Statement

ESP Endangered Species Act

ESCP Erosion and Sediment Control Plan
FEIS Final Environmental Impact Statement

EISPN Environment Impact Statement Preparation Notice

FEMA Federal Emergency Management Agency

FHWA Federal Highway Administration
FIRM Flood Insurance Rate Map

GPAC General Plan Advisory Committee

GPD Gallons per day
GPM Gallons per minute

HAR Hawai'i Administrative Rules

HC&S Hawai'i Commercial & Sugar Company
HCZMP Hawai'i Coastal Zone Management Program
HDOT Hawai'i Department of Transportation

HRS Hawai'i Revised Statutes

HTCO Hawaiian Telcom

HUD U.S. Department of Housing and Urban Development

ICB ''Īao Clay, 3 to 7 percent slopes

ISWMP Integrated Solid Waste Management Plan
KWWTF Kahului Wastewater Treatment Facility

KPWR Keālia Pond Wildlife Refuge

KV Kilovolt

LCA Land Commission Award

LEED-ND Leadership in Energy and Environmental Design – New

Development

LID Low Impact Development

LOS Level of Service
LSB Land Study Bureau

LUC Land Use Commission (State of Hawai'i)

MCC Maui County Code
MECO Maui Electric Company

MG Million gallons

MGD Million gallons per day
MIP Maui Island Plan
MMA Maui Market Area

MPC Maui Planning Commission
MPD Maui Police Department

MSL Mean Sea Level
MVA Megavolt Amperes

NAAQS National Ambient Air Quality Standards

NPDES National Pollutant Discharge Elimination System

NFIP National Flood Insurance Program

NRCS Natural Resources Conservation Service

OEQC Office of Environmental Quality Control (State of Hawai'i)

OHA Office of Hawaiian Affairs

OP Office of Planning

PCB Polychlorinated biphenyls

PD Project District

PDER Preliminary Drainage & Engineering Report
PpA Pulehu silt loam, 0 to 3 percent slopes

PtB Pulehu cobbly clay loam, 3 to 7 percent slopes

PV Photovoltaic

RGB Rural Growth Boundary

ROW Right-of-Way

SCS Soil Conservation Service

SF Square Feet

SFHAD Special Flood Hazard Area Development

SGR Student Generation Rate

SHPD State Historic Preservation Division (Hawai'i)

SLUC State Land Use Commission
SMA Special Management Area

STIP State Transportation Improvement Program

STB Small Town Boundaries

State State of Hawai'i

TIAR Traffic Impact Analysis Report

TMK Tax Map Key

UBC Uniform Building Code
UGB Urban Growth Boundary

USDA United States Department of Agriculture USDW Underground Sources of Drinking Water

USGS United States Geological Survey

W Water>40 acres

WCT Waikapū Country Town

WKCP Wailuku-Kahului Community Plan
WvB Wailuku silty clay, 3 to 7 percent slopes
WvC Wailuku silty clay, 7 to 15 percent slopes

WUDP Water Use and Development Plan

WWPS Wastewater Pump Station

WWRF Wastewater Reclamation Facility
WWTP Wastewater Treatment Plant



# CHAPTER I

**Introduction & Summary** 



#### I. INTRODUCTION AND SUMMARY

#### A. PURPOSE OF THE ENVIRONMENTAL IMPACT STATEMENT

This <u>Draft Final</u> Environmental Impact Statement (<u>DEIS</u>) is being prepared for the Proposed Action in accordance with the State of Hawai'i requirements in Chapter 343 of Hawai'i Revised Statutes (HRS) and Chapter 200 of Hawai'i Administrative Rules (HAR) from the Department of Health describing the contents of an EIS (HAR 11-200-17).

The purpose of HRS Chapter 343 is to establish a system of environmental review to ensure that environmental concerns are given appropriate consideration in decision making along with economic and technical considerations. Within the law are nine 'triggers' or uses that necessitate environmental review. Environmental review is required for any program or project that contains specified land uses or administrative acts, including use of State or County lands or funds other than for feasibility studies, the use of any land classified as Conservation District by State law, proposed amendments to existing county general plans where the amendment would result in designations other than agriculture, conservation or preservation, development of a wastewater treatment facility serving more than 50 dwellings, among other actions.

The Proposed Action is subject to review under HRS Chapter 343 because an amendment to the Wailuku-Kahului Community Plan is required to re-designate land currently designated for agricultural use to urban and rural uses. Other applicable triggers for the Proposed Action include the possible use of State and County lands or funds related to infrastructure improvements, including but not limited to roadway, traffic, water, sewer, drainage, utility or other related facilities. The Proposed Action may also include development of an on-site wastewater treatment facility to service all or a portion of the development.

This <u>DEIS</u> was prepared in accordance with HRS Chapter 343 and HAR Chapter 11-200, to provide sufficient information, evidence and analysis to decision makers for determining the environmental and socio-economic impacts of the Proposed Action.

#### **B. LIST OF PREPARERS**

This EIS was prepared by a qualified team of urban planning, landscape architectural, engineering, socio-economic, archaeological, cultural, and environmental professionals.

**Table 1: Prime Consultant** 

Firm	Expertise	Contact Information
Planning	Urban	Michael J. Summers
Consultants	Planning	President
Hawaiʻi, LLC		2331 W. Main Street
		Wailuku, HI 96793
		Telephone: 808-244-6231
		Email:
		msummers@planningconsultantsHawaii.com

**Table 2: Sub-Consultants** 

Firm	Expertise	Contact Information
Hawaiʻi Land	Landscape	Bill Mitchell
Design	Architecture;	President
	Urban Design	2331 W. Main Street
		Wailuku, HI 96793
		Telephone: 808-385-2859
		Email: bmitchell@Hawaiilanddesign.com
Otomo	Civil	Stacy Otomo
Engineering	Engineering	President
		305 South High Street
		Wailuku, HI 96793
		Telephone: 908-242-0032
		Email: <a href="mailto:stacy@otomoengineering.com">stacy@otomoengineering.com</a>
Fehr & Peers	Traffic	Sohrab Rashid
	Engineering	Principal
		7 Waterfront Plaza
		500 Ala Moana Blvd., Suite 7-4000
		Honolulu, Hawaiʻi 96813
		Telephone: 619-758-3002
		Email: s.rashid@fehrandpeers.com
The Hallstrom	Market	Thomas Holliday
Group   CBRE, Inc.	Studies; Fiscal	Charter Member

Firm	Expertise	Contact Information
	and Economic	Vice President
The Hallstrom	Impact	
Group	Studies	1003 Bishop Street
C. Gup	Studies	Pauahi Tower, Suite 1350
		Honolulu, Hawaiʻi 96813
		Telephone: 808-526-0444
		Email: tws@hallstromgroup.com
		Zillani <u>ewag hanati anigi augitaani</u>
		1003 Bishop Street, Ste. 1800
		Honolulu, Hawai'i 96813
		Telephone: 808-541-5120
		Email: Tom.Holliday@cbre.com
Archaeological	Archaeology	Lisa Rotunno-Hazuka
Services Hawai'i	Allendeology	1930 East Vineyard Street, #A
Scrvices Hawari		Wailuku, HI 96793
		Telephone: 808-244-2012
		Email: lisa@ashmaui.com
DL Adams &	Acoustic	Dana Dorsch
Associates	Studies	John Garreston
Associates	Studies	970 N. Kalaheo Avenue, Suite A311
		Kailua, HI 96734
		Telephone: 808-254-3318
		Email: ddorsch@dlaa.com
Dlanning	A grioultural	Michael J. Summers
Planning Consultants	Agricultural	President
Hawaiʻi, LLC	Impact Assessment;	2331 W. Main Street
Hawai i, LLC	Sustainability	
	Plan	Wailuku, HI 96793
	Pidii	Telephone: 808-269-6220 Email:
D.D. Nool 9	Air Ovality	msummers@planningconsultantsHawaii.com
B.D. Neal &	Air Quality	Barry Neal
Associates		President
		P.O. Box 1808
		Kailua-Kona, Hawaiʻi 96745
		Telephone: 808-329-1627
B 1		Email: bdneal@bdneal.com
Robert Hobdy	Flora and	Robert Hobdy
	Fauna	President
		2560-B Pololei Place
		Ha`ikū, HI 96708
		Telephone: 808-573-8029
		Email: Hobdyroo1@Hawaii.rr.com
Hana Pono, LLC	Cultural	Kimokeo
	Impact	P.O. Box 2039
	Assessment	Wailuku, HI 96793
		Telephone: 808-573-1643

Firm	Expertise	Contact Information	
		Email: hanapono@gmail.com	
Jill Engledow	Historian;	Jill Engledow	
	Writer	jill@mauiislandpress.com	
Enviniti, LLC	Wastewater	Jonathan Nagato	
	Engineering	Managing Member	
		P.O. Box 256659	
		Honolulu, HI 96825	
		Telephone: 808-596-2378	
		Email: jon@enviniti.com	
Mana Water LLC	Wastewater	Zoltan Milaskey	
	<b>Engineering</b>	Vice President Operations	
		2010 Honoapi'ilani Highway C-1	
		<u>Lahaina, HI 96791</u>	
		Telephone: 808-280-1395	
		Email: zoltan@mana-water.com	
Newcomber-Lee	Land	Bruce Lee	
Land Surveyors	Surveying	President	
		1498 Lower Main Street, Suite E	
		Wailuku, HI 96793	
		Telephone: 808-244-8889	
		Email: <a href="mailto:netwaif">new.lee@Hawaif</a> iantel.net	
Warren S.	Land	Darren Unemori	
Unemori	Surveying	President	
Engineering Inc.		Wells Street Professional Center	
		2145 Wells Street, Suite 403	
		Wailuku, HI 96793	

### C. PROJECT PROFILE

### 1. Applicant

The Project Applicant is Waikapū Properties LLC.

**Table 3: Project Applicant** 

Contact	Telephone/Email	Address
Mike Atherton	209-601-4187 athertonisland@aol.com athertonisland@gmail.com	Maui Tropical Plantation 1670 Honoapi'ilani Highway Waikapū, HI 96793
Albert Boyce	209-239-4014 albertboyce@gmail.com	Waikapū Properties, LLC P.O. Box 1780

Contact	Telephone/Email	Address
		Manteca, CA 95336

#### 2. Land Ownership

Waikapū Country Town (WCT) or (the Project) land is owned in fee simple by various ownership entities.

**Table 4: WCT Land Ownership** 

Ownership Group	Parcel(s)	Acres	
Waikapū Properties LLC	(2) 3-6-004:003	657.195	
	(2) 3-6-006:036	0.72	
	(2) 3-6-004:006	52.976	
MTP Land Partners LLC	(2) 3-6-005:007	59.054	
and the Filios, William Separate			
Property Trust			
Wai'ale 905 Partners LLC	(2) 3-6-002:003	521.40	
	(2) 3-6-002:001	284.826	
TOTAL	•	1576.171	

#### 3. Accepting Authority

The Accepting Authority for the EIS is the State of Hawai'i, Land Use Commission.

Table 5: State of Hawai'i, Land Use Commission

Contact(s)	Telephone/Email	Address
Daniel E. Orodenker	Telephone: 808-587-3822	State of Hawai`i Land Use
Executive Director	Fax: (808) 587-3827	Commission
	Email:	Department of Business, Economic
Scott Derrickson, AICP	luc@dbedt.Hawaiʻi.gov	Development & Tourism
Planner		P.O. Box 2359
		Honolulu, Hawai`i 96804-2359

#### 4. Project Overview

The Applicant is proposing to develop a new residential mixed-use community on lands within and around the Maui Tropical Plantation (MTP), which is just south of the small town of Waikapū, Maui. The Project will encompass approximately 499.003 acres of lands to be used for urban and rural development. Approximately 1,077.168 acres will remain in agricultural use and

about 800 acres of this agricultural land will be placed into an agricultural conservation easement. The project area is within the Maui Island Plan's (MIPs) Small Town Growth Boundary and is identified as the "Tropical Plantation Town Planned Growth Area". The MIP allocates 1,433 residential units and supporting commercial and civic uses to the Planned Growth Area.

The WCT will include 1,433 residential units, plus about 146 'Ohana units, together with neighborhood retail, commercial, employment uses, a school, parks and open space. The project will be developed in accordance with the goals, objectives and policies of the MIP and Wailuku-Kahului Community Plan. The project will be developed in two five-year phases, once all State and County approvals have been granted.

#### 5. Project Location

The Project is located in Central Maui at the Maui Tropical Plantation (MTP), 1670 Honoapi'ilani Highway, Wailuku, Maui, Hawai'i. The boundaries of the project include lands that are makai (east) and mauka (west) of the Honoapi'ilani Highway and extending north and south of the existing MTP. (See: Figure 1, "Regional Location Map" and Figure 2, "Aerial Photograph").

#### 6. Tax Map Keys

The entire property, including the lands that are to remain in agricultural use, is identified by the following six Tax Map Key Numbers (See: Figure 3, a-d: "TMK Maps"):

**Table 6: Project Tax Map Key Numbers** 

Project Tax Map Key Numbers	
(2) 3-6-005:007	(2) 3-6-002:001
(2) 3-6-002:003	(2) 3-6-006:036
(2) 3-6-004:003	(2) 3-6-004:006

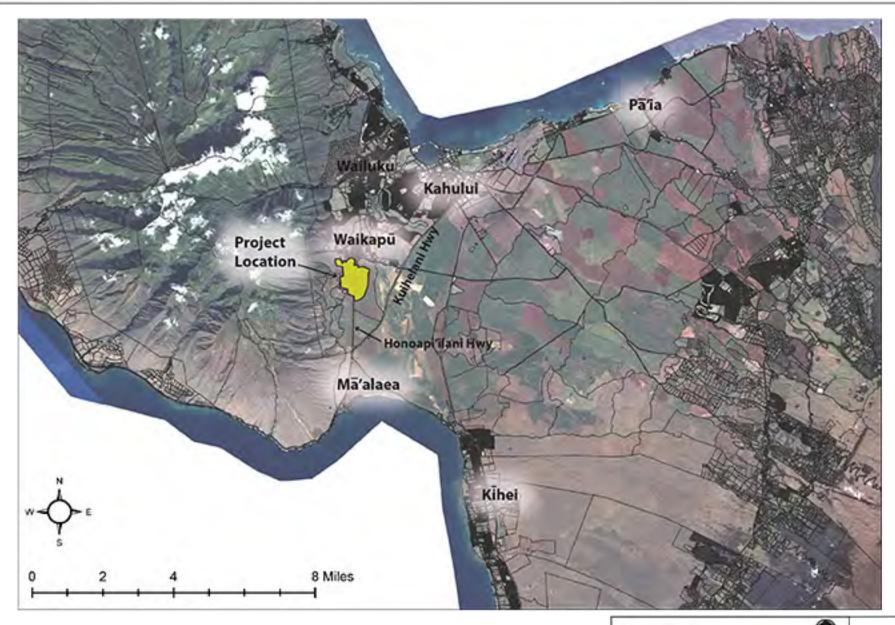


Figure 1

Regional Location

WAIKAPŪ COUNTRY TOWN



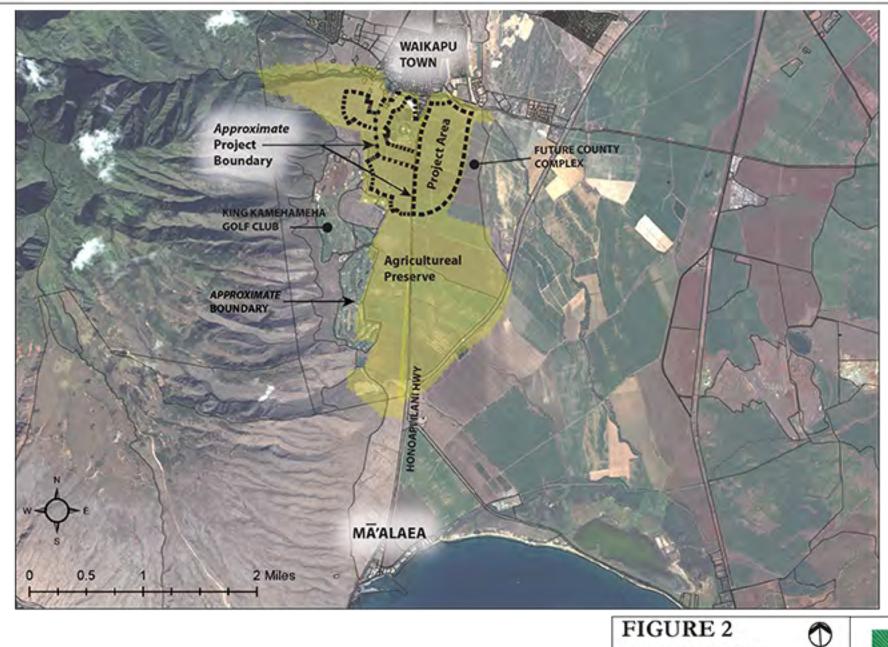


FIGURE 2

AERIAL LOCATION

WAIKAPÚ COUNTRY TOWN



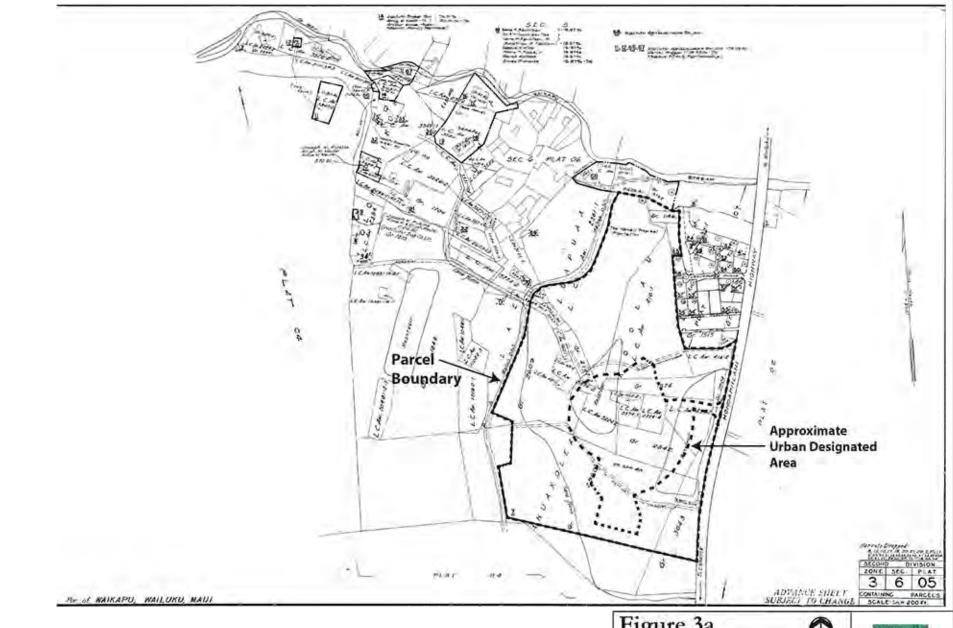


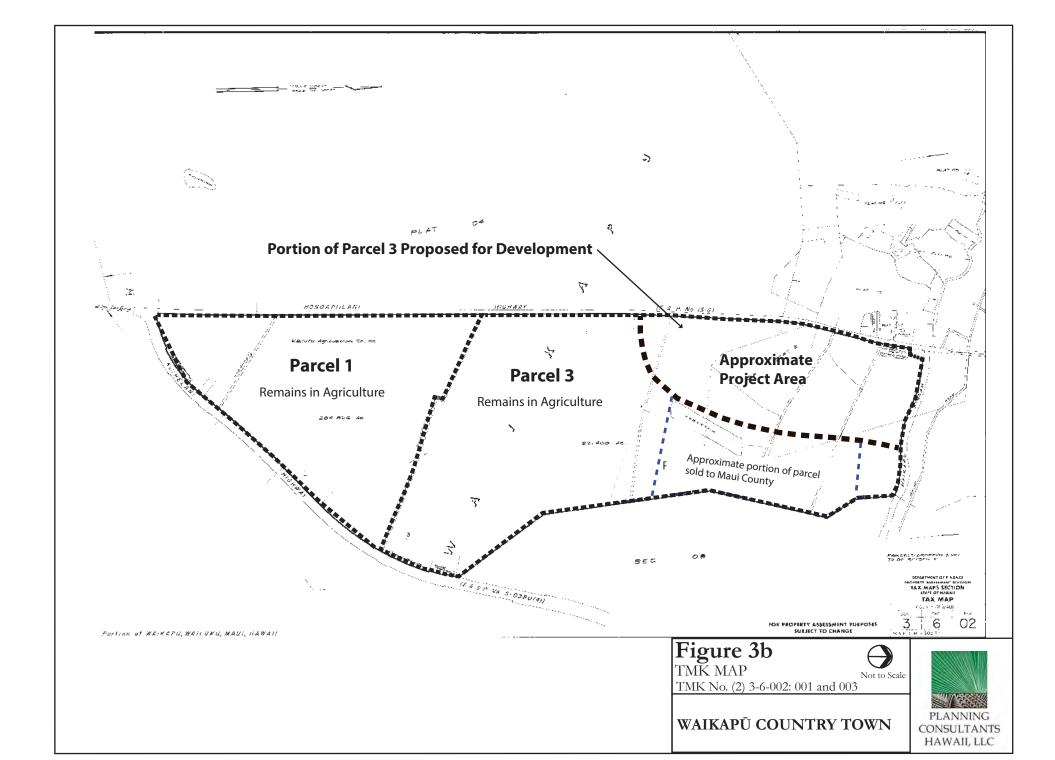
Figure 3a TMK MAP TMK No. (2) 3-6-005:007

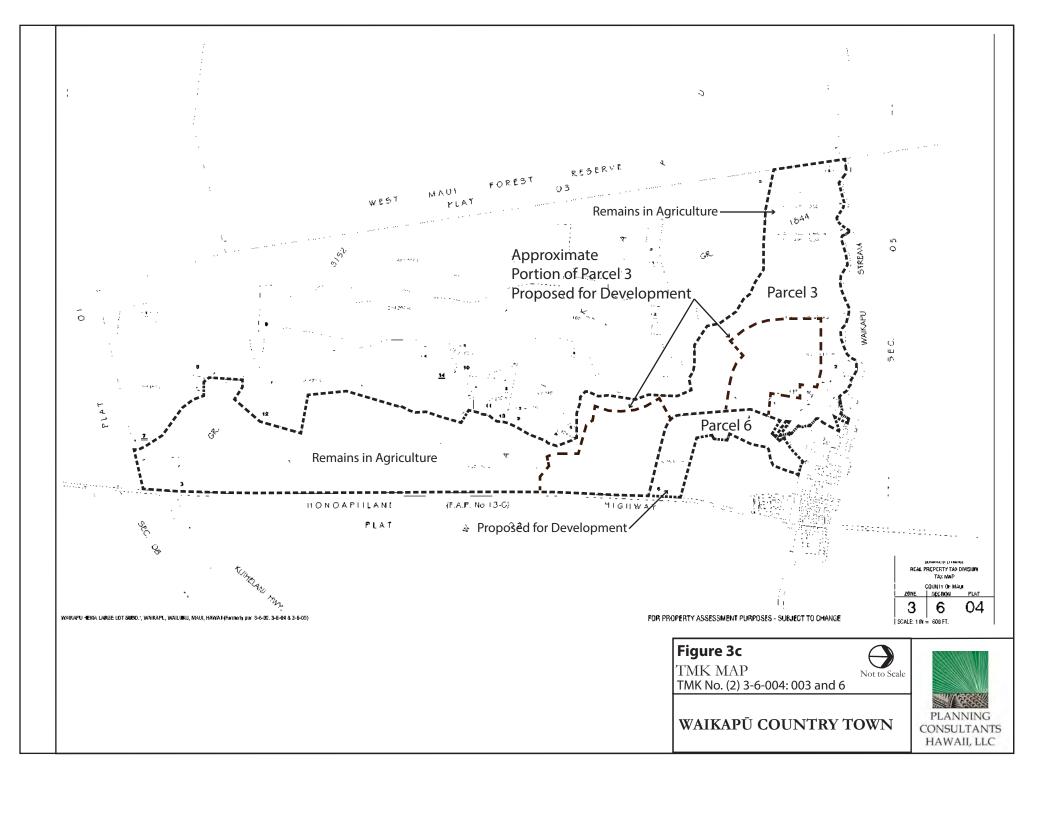
0

Not to Scale

WAIKAPŪ COUNTRY TOWN







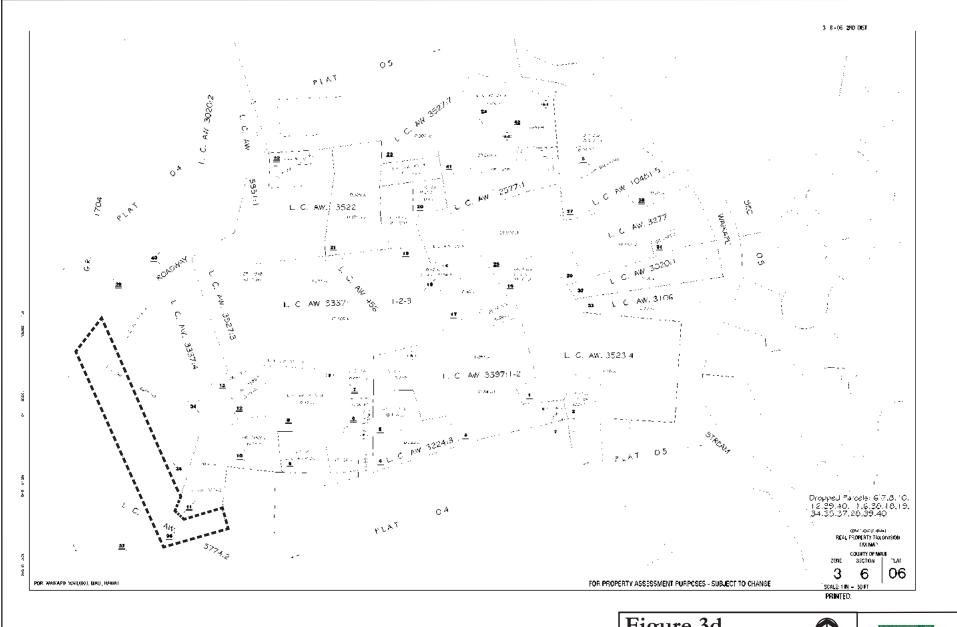


Figure 3d TMK No. (2) 3-6-006:036



Not to Scale

WAIKAPŪ COUNTRY TOWN



#### 7. Land Area

The land area owned by the various ownership entities comprises 1,576.171 acres. The property proposed for urban and rural development encompasses approximately 499.003 acres. Lands not proposed for urban or rural development will remain within the State Agricultural District (See: Figure No. 4, "Petition Area Illustration" and Appendix M N, District Boundary Amendment Petition Maps).

#### 8. State Land Use Districts

Of the 1,576.171 acres under ownership, 1,562.171 acres are located within the State Land Use Agricultural District and 14 acres are located within the State Land Use Urban District (<u>See</u>: Figure No. 5, "State Land Use Designation").

**Table 7: State Land Use Districts** 

Ownership Group	Parcel(s)	Acres	State Land Use
Waikapū Properties LLC	(2) 3-6-004:003	657.195	Agricultural
	(2) 3-6-006:036	0.72	Agricultural
	(2) 3-6-004:006	52.976	Agricultural
MTP Land Partners LLC	(2) 3-6-005:007	59.054	Agricultural (45.054 acres)
and the Filios, William			Urban (14 acres)
Separate Property Trust			
Wai'ale 905 Partners LLC	(2) 3-6-002:003	521.40	Agricultural
	(2) 3-6-002:001	284.826	Agricultural
TOTAL	_	1576.171	

#### 9. State Land Use District Boundary Amendment (DBA)

The WCT Master Plan will require a State Land Use District Boundary Amendment in order to bring 485 acres of State Agricultural District land into the State Land Use Urban and Rural districts. Table No. 8 identifies the parcels requiring a State Land Use Commission District Boundary Amendment for all or a portion of the property (See: Figure No. 5, State Land Use Designation"). See Appendix R M for the proposed District Boundary Petition Area Maps.

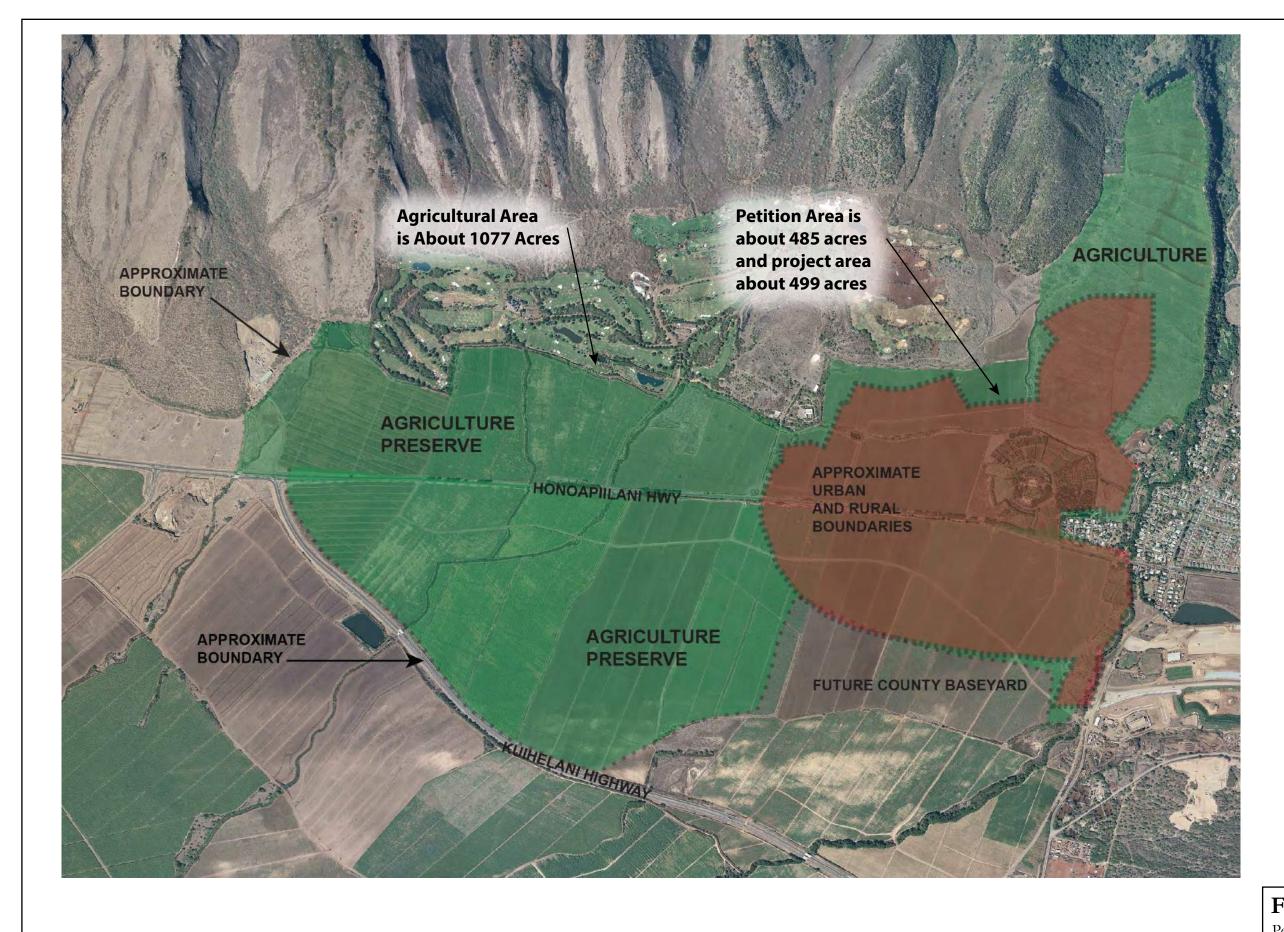


Figure 4
Petition Area Illustration





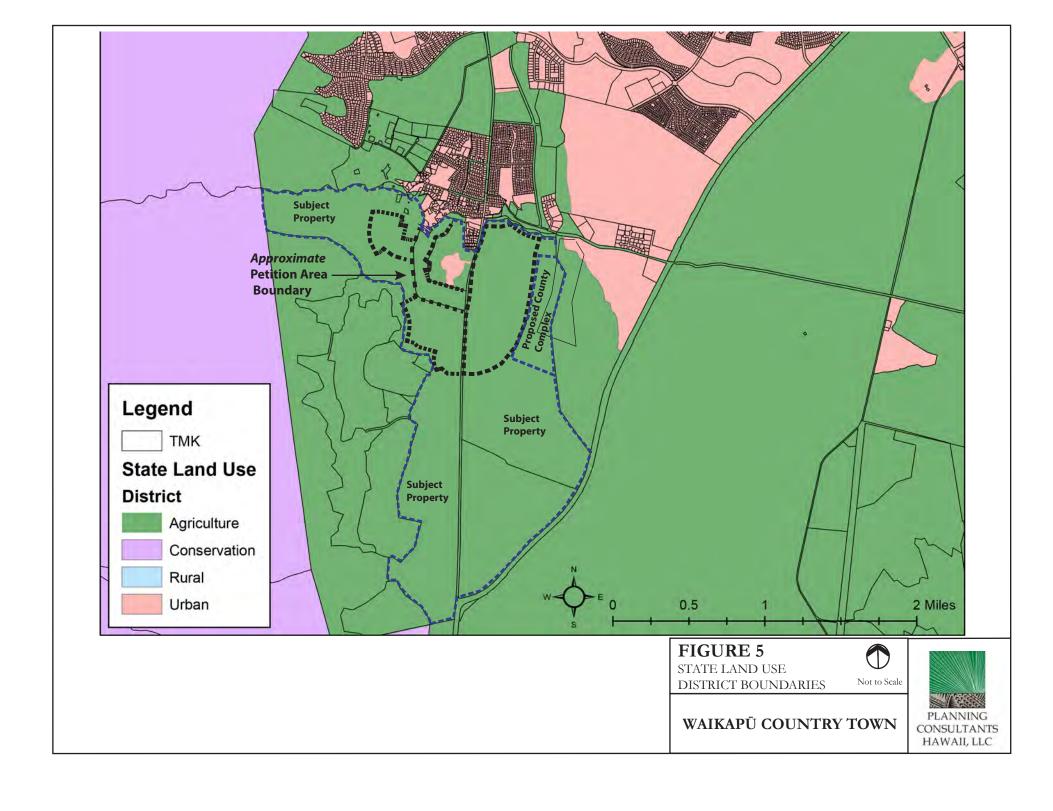


Table 8: TMK Parcels Requiring a State Land Use District Boundary Amendment

<u>Ownership</u>	<u>Parcel</u>	<u>Acres</u>	Existing State	Acres Subject	Proposed State
			Land Use	to DBA	Land Use
Waikapū Properties LLC	(2) 3-6-004:003	657.195	<u>Agriculture</u>	149.848	Rural
	(2) 3-6-004:006	<u>52.976<sup>1</sup></u>	<u>Agriculture</u>	<u>53.775</u> <sup>2</sup>	<u>Urban</u>
MTP Land Partners LLC	(2) 3-6-005:007	59.054	<u>Agriculture</u>	<u>45.054</u>	<u>Urban</u>
and the Filios, William					
Separate Property Trust					
Wai`ale 905 Partners	(2) 3-6-002:003	521.40	<u>Agriculture</u>	236.326	<u>Urban</u>
LLC					

#### 10. 9. Wailuku-Kahului Community Plan Designations

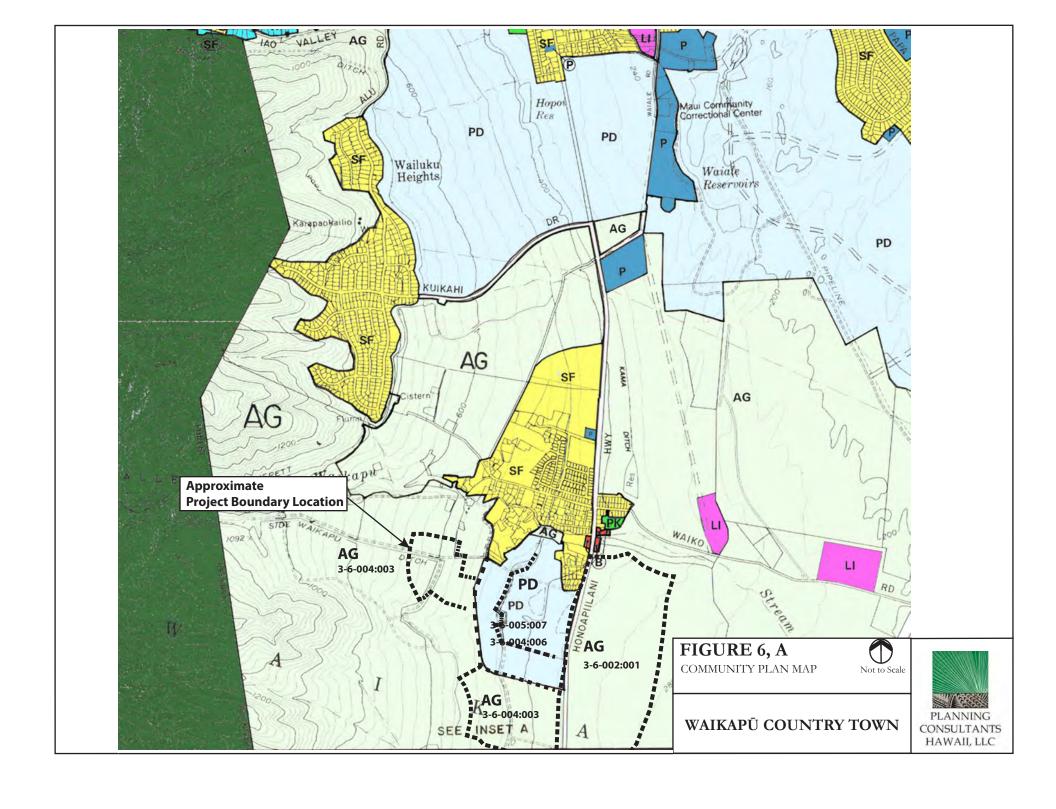
Of the 1,576.171 acres under ownership, 1,464.141 acres are designated Agriculture by the Wailuku-Kahului Community Plan and 112.03 acres are designated Project District (<u>See</u>: Figure No. 6, A-B: "Wailuku-Kahului Community Plan Designations").

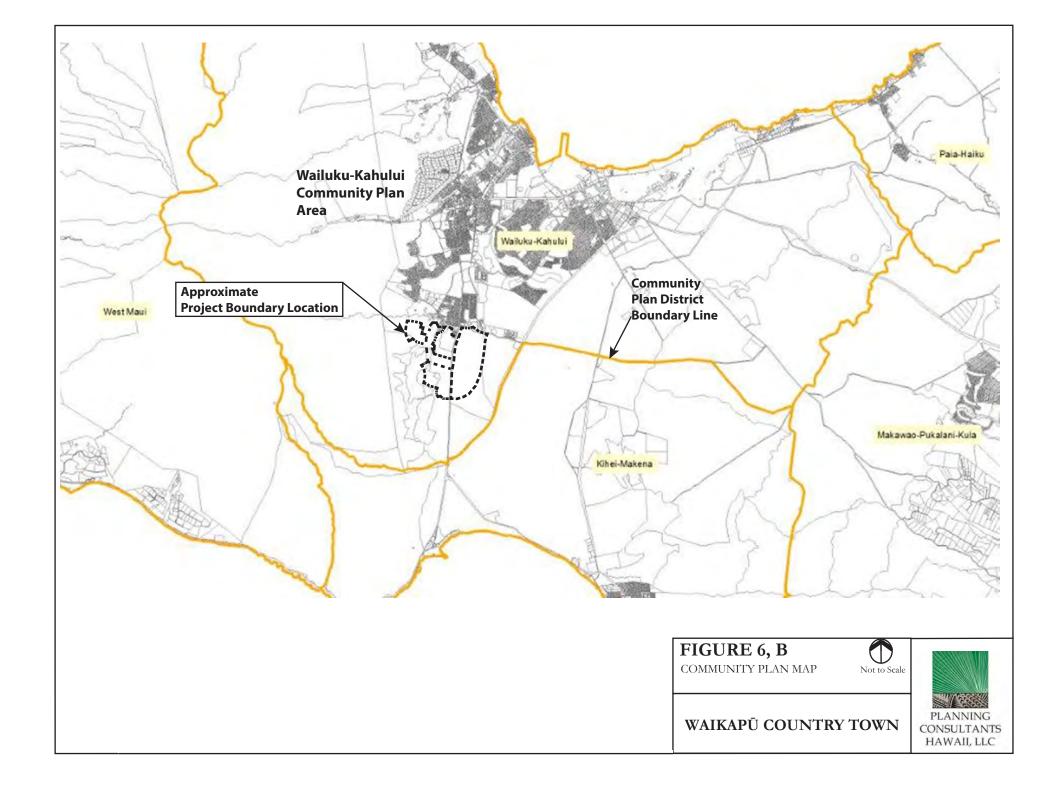
Table 98: Wailuku-Kahului Community Plan Designations

Ownership Group	Parcel(s)	Acres	Community Plan
Waikapū Properties LLC	(2) 3-6-004:003	657.195	Agriculture
	(2) 3-6-006:036	0.72	Agriculture
	(2) 3-6-004:006	52.976	Project District
MTP Land Partners LLC	(2) 3-6-005:007	59.054	Project District
and the Filios, William			
Separate Property Trust			
Wai'ale 905 Partners LLC	(2) 3-6-002:003	521.40	Agriculture
	(2) 3-6-002:001	284.826	Agriculture
TOTAL		1576.171	

 $<sup>^{1}</sup>$  Acreage identified on TMK Map.

<sup>&</sup>lt;sup>2</sup> Acreage identified by survey.





#### 11. 10. County Zoning Districts

Of the 1,576.171 acres under ownership, 1,517.177 acres are located within the County's Agricultural District and 59.054 acres are located within the County's Project District PD-Wk/5 (<u>See</u>: Figure No. 7, "County Zoning Map"). Of the 59.054 acres within PD-Wk/5, 14.00 acres are zoned Commercial and 49.054 acres are zoned Agricultural.

**Table 10 9: County Zoning Districts** 

Ownership Group	p Parcel(s)		County Zoning
Waikapū Properties LLC	(2) 3-6-004:003	657.195	Agricultural
	(2) 3-6-006:036	0.72	Agricultural
	(2) 3-6-004:006	52.976	Agricultural
MTP Land Partners LLC	(2) 3-6-005:007	59.054	Project District (PD-WK/5)
and the Filios, William			
Separate Property Trust			
Wai'ale 905 Partners LLC	(2) 3-6-002:003	521.40	Agricultural
	(2) 3-6-002:001	284.826	Agricultural
TOTAL		1576.171	

#### 12.11. Status of Required State and County Approvals and Permits

The following is a summary of major approvals and permits required for implementation of the proposed action. Table 11 10-documents permits and approvals specific to the residential and commercial development and Table 12 documents approvals specific to the development of the Project's wastewater reclamation facility. Additional approvals and permits may be necessary.

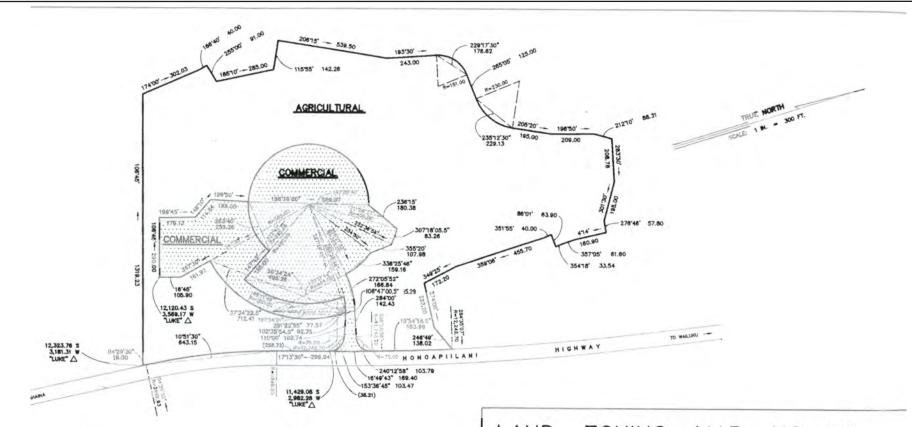
Table <u>11</u> <u>10</u>: <u>TMK Parcels Requiring a Change in Zoning</u> Required State and County Approvals and Permits

Permit/Approval	Responsible Agency	Status
Chapter 343 Compliance	State Land Use Commission	Pending public comments on DEIS and acceptance of FEIS Pending Acceptance of FEIS and a Finding of No Significant Impact (FONSI) determination.
State Land Use District Boundary Amendment	State Land Use Commission	Petition has been filed. Processing is on hold until the

Permit/Approval	Responsible Agency	Status
		EIS (Chapter 343, HRS)
Company with A Diam A make due out	Marri Danambraant of Dlanaina	process has been completed.
Community Plan Amendment	Maui Department of Planning	Application to be processed concurrently with State Land
		Use District Boundary
		Amendment. Final approval
		will be issued if the DBA is
		granted.
Change in Zoning / Project	Maui Department of Planning	Application to be processed
District Phase I Approval	madi Departiment of Framing	concurrently with State Land
		Use District Boundary
		Amendment. Final approval
		will be issued if the DBA is
		granted.
Project District Phase II	Maui Department of Planning	Application to be submitted
		after Project District Phase I
		Approval.
Project District Phase III	Maui Department of Planning	Application to be submitted
		after Project District Phase II
		Approval.
Chapter 6E, HRS Compliance	State Historic Preservation	Archaeological Inventory
	Division	Survey has been filed.
		Archaeological Monitory Plan
		to be prepared and filed.
		Reports are pending approval
Charter 242 LIBC Carrellians	Development of Dublic Manha	of the SHPD.
Chapter 343 HRS Compliance	Department of Public Works	Application to be filed if
for Wastewater Treatment Plant		entitlement requests are
	Ctata Danartmant of Haalth	granted  Application to be filed prior
National Pollutant Discharge	State Department of Health	Application to be filed prior
Elimination System Permit Subdivision Approval	Maui Department of Public	to Grading/Building permits.
Subdivision Approvai	Works	Application to be submitted after Project District Phase II
	WOIKS	Approval.
Grading Permit	Maui Department of Public	Application to be filed after
Grading Fermit	Works	Project District Phase II
	WOINS	approval.
Building Permit	Maui Department of Public	Application to be filed after
	Works	Project District Phase II
		approval.

Table 12: Governmental Approvals and Permits for Wastewater Reclamation Facility

Permit/Approval	Responsible Agency	<u>Status</u>
National Pollutant Discharge Elimination System Permit	State Department of Health	Applications to be filed for the following:  • Stormwater Associated with Construction Activity  • Dewatering; and  • Hydrotesting.
Noise Permit	State Department of Health	Application to be filed prior to issuance of building permit.
Air Quality Permit	State Department of Health	Application to be filed prior to issuance of building permit.
Underground Injection Control (UIC) Permit	State Department of Health	Application to be filed prior to issuance of building permit.
Wastewater Management Plan Permit	State Department of Health	Application to be filed prior to issuance of building permit.
Use of Recycled Water for Irrigation Permit	State Department of Health	Application to be filed prior to issuance of building permit.
Chapter 6E, HRS Compliance	State Historic Preservation <u>Division</u>	Archaeological Inventory Survey has been filed. Archaeological Monitory Plan to be prepared and filed. Reports are pending approval of the SHPD.
Coastal Zone Management (CZM) Program Consistency Review	Office of Planning	Application to be filed prior to issuance of building permit.
State Land Use Commission Special Use Permit	Maui Planning Commission	Application to be submitted after Project District Phase II Approval.
Driveway Permit Grading/Grubbing Permit Building Permit Excavation Permit Drainage Plan Approval	Maui Department of Public Works	Application to be filed after Project District Phase II approval.



AGRICULTURAL COMMERCIAL

AREA:

45.054 ACRES 14.000 ACRES

TOTAL = 59.054 ACRES

X MAP KEY: 3-6-05 : PORTION OF 7

LAND ZONING MAP NO. 412

CHANGE IN ZONING - WAILUKU, MAUI
FROM COUNTY AGRICULTURAL DISTRICT TO WAILUKU /KAHULUI
PROJECT DISTRICT PD-WK/5

APPROVAL:

APPROVAL:

PUBLIC HEARING DATE: II-05-91
ADOPTED BY COUNTY COUNCIL: IO - 2 - 92
ADOPTED BY MAYOR: IO - 5 - 92

ORDINANCE NO.: 2159 (BILL No 69(1992)

SCALE: 1" = 300'

OFFICE OF THE COUNTY CLERK
200 SO. HIGH ST., WAILUKU, MAUI, HAWAII, 96793

L-412

# FIGURE 7

County Clerk

MTP LAND ZONING MAP NO. 412 Not to Scale (2) 3-6-005:007

DATE:

PLANNING CONSULTANTS HAWAII, LLC

WAIKAPU COUNTRY TOWN

#### D. EXECUTIVE SUMMARY

# 1. Project Description

Waikapū Country Town (hereafter "WCT" or the "Project") is located in Central Maui at Waikapū, which is approximately two (2) miles south of Wailuku, Maui, Hawai'i (See: Figure 1, "Regional Location Map" and Figure 2, "Aerial Photograph"). The urbanized portion of the property, which is the site of the existing Maui Tropical Plantation (MTP), is approximately 2,000 feet south of the intersection of Waiko Road and Honoapi'ilani Highway. The Project will be built on each side of Honoapi'ilani Highway. The entire property, including the land to remain in agricultural use, is identified by Tax Map Key Numbers (TMKs) (2) 3-6-005:007; (2) 3-6-002:001 and 003; (2) 3-6-006:036; (2) 3-6-004:003 and 006 (See: Figure 3a-d, "TMK Maps"). This area encompasses approximately 1,576 acres, of which 1562 acres is within the State Agricultural District and 14 acres is within the State Urban District.

The Applicant is proposing to redistrict approximately 485 acres of State Agricultural District land to the State Urban and Rural Districts. Approximately 1,077 acres of the Applicant's holdings will remain within the State Agricultural District. About 800 acres of the agricultural land will be permanently protected by the Applicant through an agricultural easement, or similar mechanism, to facilitate long-term farming on these lands.

The Project, which will be situated on approximately 499 acres, is intended to be developed as a "complete community". A complete community is a settlement pattern in which jobs, housing, private and public facilities and services come together to provide the basic needs of a community, without having to be dependent upon long vehicular commutes.

The Project area was placed into the MIPs Small Town Growth Boundary in December 2012. The purpose for placing the lands within the growth boundary is so that the land can provide additional housing and services to accommodate projected population growth through 2030. In accordance with the MIP's Planned Growth Guidelines, the WCT will comprise 1,433 residential units, plus about 146 'Ohana units, together with neighborhood retail, commercial, employment uses, a school, parks and open space. The Project will be bound by agricultural land that will be

preserved in perpetuity through a conservation easement. The utilization of conservation subdivision design (CSD) practices will preserve additional rural land for farming, open space, and open land recreation uses.

The WCT will be built in two five year phases, both mauka and makai of Honoapi'ilani Highway. Development mauka of the highway will focus inwards onto a "village center," incorporating the existing buildings and tropical grounds of the MTP. The WCT Master Plan calls for a mixture of affordable and market priced housing, along with commercial, entertainment, and civic uses within and around the village center. Development makai of the highway will focus onto a pedestrian-oriented "main street," a nearby elementary school, and neighborhood and community parks. The makai development is bound to the east by the planned extension of the Wai'ale Road, which will intersect with Honoapi'ilani Highway.

## 2. Purpose and Need

Like the rest of Hawai'i, housing affordability on Maui is a pressing problem, especially for lower and middle income families and young adults. It is generally recommended that no more than 30% of monthly income be spent on rent. However, in 2011 60% of Maui residents exceeded this threshold. According to the US Census Bureau, 2007-2011 American Community Survey 5-Year Estimates, 65% of renters in Wailuku spend over 30% of their income on gross rent and 44% spend over 50% of their income on gross rent. Spending such a high percentage of a family's income on rent takes away from other needed spending and investments, such as saving for a child's education or for retirement.

While housing affordability is a significant concern, demand for housing is projected to increase, placing further pressure on housing prices. According to the MIP (December 2012), there will be a demand for an additional 29,589 housing units on Maui through 2030. Of these units, approximately 10,845 are expected to be built on lands not currently entitled for urban development. Therefore, about 18,744 units are to be built on lands already zoned for residential use. The majority of the future demand for housing will be in Central Maui. According to the County's Land Use Forecast (November 2006), there will be a demand for an additional 16,549 residential units within the Central Maui region by 2030. This demand will have to be met by new housing developments on both entitled and non-entitled lands.

However, a critical constraint to the development of future housing in Central Maui is the availability of potable water. Due to a current shortage of County water to support future Central and South Maui development, the County is not approving new subdivisions unless those subdivisions develop their own sources of water. This has stopped many projects from proceeding.

In December 2012 the County of Maui adopted the MIP, which set forth the County's first comprehensive island-wide managed and directed growth strategy to address housing demand through 2030. The MIP identifies several "Planned Growth Areas" where future growth will be directed. The subject property is one of these Planned Growth Areas, receiving an allocation of approximately 1,433 residential units. Additional housing may be built, but it must be affordable workforce housing that exceeds County requirements.

It should be expected that as demand outpaces supply at an accelerating rate, housing prices will continue to escalate, which will further exacerbate Maui's affordable housing problems. The proposed project is addressing a critical community need by supplying an additional supply of housing to an underserved market.

## 3. Projected Market Demand

A market study and economic and fiscal impact assessment was conducted by the Hallstrom Appraisal Group | CBRE, Inc. and is included in the DEIS FEIS as Appendix A (See: Appendix A, "Market Study, Economic Impact Analysis, and Public Fiscal Assessment").

The purpose of the market study was to determine if there will be sufficient market demand to absorb the proposed residential and commercial development during a reasonable exposure period given competing developments and projected statewide/regional market trends.

According to the Hallstrom | CRBE study, it is estimated the demand for new residential units in the Wailuku-Kahului study area will be from 9,647 to 16,814 units over the next 21 years (through 2035); including allowances for non-resident purchasers and vacancies, with a midpoint demand of 13,230 units. The number of existing unsold and planned resident housing units within the regional "Directed Growth Boundary", excluding the proposed WCT product,

totals some 7,296 units. This indicates there will be a shortfall in the sector of from 2,351 to 9,518 new residential units; with a mid-point under-supply of 5,935 units. Thus, sufficient unmet demand should exist to readily absorb the 1,433 units of subject inventory during the projection period.

The Hallstrom | CRBE study estimates that the 1,433 proposed residential units of WCT will require about 10 years to be fully absorbed following anticipated commencement of sales in 2017, or at an average rate approaching 150 units annually. It is estimated the demand for neighborhood commercial space by WCT residents and day workers at build-out will be some 85,100 square feet, with patronage by guests in the community, other Waikapū households, and passer-byes contributing an additional 34,000 square feet of demand on a stabilized basis. The remaining 50,500 square feet (of the total 169,600 square feet proposed) will be modestly absorbed over-time with specialized/niche businesses, many with cross-over appeal to residents and visitors, and keeping with the small town context. It is estimated that it will require about 12 years for the WCT commercial space to be fully absorbed.

# 4. Summary of Beneficial and Adverse Impacts and Mitigation Measures

## a. Flora and Fauna

Botanical and Faunal Surveys were conducted by Robert W. Hobdy, Environmental Consultant, in February 2013 for the area proposed for development (See: Appendix B, "Botanical and Faunal Surveys"). The study determined that there is little of botanical concern on the property and that the proposed project is not expected to have a significant negative impact on botanical resources. No recommendations with regard to plants were deemed necessary. The study also found that all mammals recorded were common non-native species of no particular concern. However, the study did find two mature Blackburn's sphinx moth eggs on the leaves of one of two Tree Tobacco plants found on the property. The Blackburn's sphinx moth is an endangered species and is of special concern. In response to the findings, the U.S. Fish and Wildlife Service was consulted and appropriate mitigation measures, as described in Section IV.A.4 of the DEIS FEIS, will be taken to mitigate impacts to the Blackburn's sphinx moth. Implementation of these measures will not constrain development of the site.

#### b. Air Quality

An Air Quality Study was conducted by B.D Neal & Associates to examine the potential shortand long-term air quality impacts that could occur as a result of the construction and operation phases of the development and suggests mitigation measures to reduce any potential air quality impacts where possible and appropriate (<u>See</u>: Appendix C, "Air Quality Study").

Except for periodic impacts from volcanic emissions (vog) and possibly occasional localized impacts from traffic congestion and local agricultural sources, the present air quality of the project area is believed to be relatively good. There may be some short- and/or long-term impacts on air quality that may occur either directly or indirectly as a consequence of project construction and use. Short-term impacts from fugitive dust could occur during the project construction phases. Fugitive dust emissions can be controlled to a large extent by watering of active work areas, using wind screens, keeping adjacent paved roads clean and covering of open-bodied trucks.

To assess the potential long-term impact of emissions from project-related motor vehicle traffic operating on roadways in the project area after construction is completed, a computerized air quality modeling study was undertaken. With the project in the year 2026 and with proposed roadway improvements, estimated worst-case carbon monoxide concentrations indicated only minimal or no impact compared to the without project case. Concentrations would remain well within standards. Moreover, the Project's wastewater reclamation facility will be designed and operated to keep any emissions of odorous gases at the facility boundary below the odor threshold. Thus, offsite odor nuisance is not expected to be an issue.

## c. Noise Quality

A Noise Assessment Report was prepared by D.L. Adams & Associates to describe the existing and future traffic noise levels in the environs of the project site. (See: Appendix D, "Noise Assessment Report"). The construction phases of the project will generate significant amounts of noise. In cases where construction noise is expected to exceed the Hawai'i Department of Health (HDOH) "maximum permissible" property line noise levels, a permit must be obtained to allow the operation of construction equipment. HDOH may require additional noise mitigation,

such as temporary noise barriers, or time of day usage limits for certain kinds of construction activities.

During the operations phase, residences within the WCT that are located along Honoapi'ilani Highway, and the major perimeter roadways, will be exposed to elevated traffic noise. Housing and Urban Development (HUD) site acceptability standards must be satisfied by providing minimum setback distances or other traffic noise mitigation measures in order to reduce the noise impact to these homes. The recommended setback for residences located along Honoapi'ilani Highway is 60-feet.

Regarding the proposed on-site wastewater reclamation facility, based on data collected of similar facilities and operations, the wastewater reclamation facility is not expected to produce high noise levels at or beyond property lines adjacent to it.

#### d. Archaeological Resources

Archaeological Services Hawai'i, LLC conducted an Archaeological Inventory Survey (AIS) of the subject parcels to be developed (TMK's 3-6-002:003; 3-6-004:003, 006; and 3-6-005:007) (<u>See</u>: Appendix E, "Archaeological Inventory Survey").

During the AIS investigation, no evidence of traditional Hawaiian activities, with the possible exception of Site 7882 (remnant retaining wall or terrace) was recorded. These negative results are primarily due to the compounded disturbances from sugarcane cultivation, historic habitation and modern land use; and possibly the inherent bias of random sampling during the inventory survey testing. Based on the proposed development plan, Site 7884 Features 2-3 (historic trash scatter and refuse pit); a section of Site 5197 (Waihe'e Ditch) and possibly Site 7883 (WWII bunker) may be adversely affected during the development activities. The AIS notes that these historic properties have been properly recorded and may be removed and or altered during construction. Archaeological monitoring is recommended for those areas that contain former LCA's and Grants. Prior to the commencement of construction, an Archaeological Monitoring Plan (AMP) detailing the localities to undergo monitoring procedures will be prepared and submitted to SHPD for review and approval. The project is not expected to have

an adverse impact upon archaeological or historical resources with implementation of the proposed mitigation measures.

#### e. Cultural Resources

A Cultural Impact Assessment (CIA) was prepared by Hana Pono, LLC to describe existing Native Hawaiian cultural activities, practices and resources that occur on the property, potential impacts from the project, and mitigation, if necessary, to address these impacts (See: Appendix F, "Cultural Impact Assessment"). The cultural practices and beliefs that are documented in the CIA include Hawaiian subsistence and residential agriculture on kuleana lands. These lands utilize the Waikapū Stream, which is a valuable cultural resource. Intricate irrigation systems built prior to western contact continue to be maintained and utilized. There are also on-going projects in the mauka portion of the Applicant's land that are being utilized for cultural site and native habitat restoration, while providing a traditional access point into the Waikapū Valley for gathering of lā'au lapa'au (medicinal plants) and native seed gathering.

There are two kuleana lots privately owned by the Mahi family (LCAw: 2499, R.P. 4070 AP 1 &2 to Ehunui) and (Grant 1153 to Ehunui) that are situated within TMK: (2) 3-6-004:003 on lands that the Applicant proposes to keep in agricultural use. The WCT Master Plan has these properties located within the Project's agricultural lands. The Mahi family would like to preserve the subject properties. The CIA also notes that there is a community desire to protect and restore the Waikapū Stream. There is an established 100-foot riparian buffer along the stream as it traverses mauka to makai along the eastern edge of the project boundary. The WCT proposes agricultural, park and open space land uses along the entire stream corridor abutting the WCT. The closest abutting urban land use is located approximately 100-feet away from the stream.

Kuleana farmers have expressed concerns about sedimentation entering Waikapū Stream during high rainfall events and from maintenance and management needs related to the plantation irrigation infrastructure, some of which traverses through WCT agricultural lands. The Applicant is committed to working with neighboring kuleana farmers to help resolve these issues. Concern has also been raised about the potential degradation of native plant species and habitats within the Waikapū Ahupua'a from the potential increase in access to the watershed

from future WCT residents. The Applicant is committed to working with the kama'āina of Waikapū and other concerned residents to develop proper access management programs to protect the Ahupua'a for future generations. Regarding ground water withdrawals from the Waikapū aquifer, these will be done within the strict guidelines established by the Commission on Water Resources Management (CWRM), which should address concerns expressed that ground water withdrawals might impact the health of the aquifer and reduce stream flows.

## f. Visual Resources

The WCT will change the character of the existing open space, Haleakalā and West Maui Mountain views along the frontage of the Highway where the urban and rural development is being proposed. The frontage that will be impacted stretches approximately 4,700 linear feet just south of Waikapū in the direction of Mā'alaea, from the northern boundary of the MTP. The views from this area, where not impacted by existing vegetation within the right-of-way, are of agricultural lands and the West Maui Mountains in the background looking in a mauka direction. Looking in a makai direction, where existing vegetation does not obstruct the views, Haleakalā is prominent and views of the Pacific Ocean can also be seen when the sugarcane has been harvested (See Section V.A.6 and Figure 40 35, A-E of the DEIS FEIS).

While the existing character of the open space, Haleakalā and West Maui Mountain views will be impacted by the WCT, setbacks of at least 60-feet, and in some areas up to 100-feet or more, will be utilized along each side of the Honoapi'ilani Highway to separate the development from the public right-of-way. In order to mitigate the obstruction of views from the highway to the West Maui Mountains, buildings will be setback at least 75-feet from the highway and building heights will be limited to a maximum of 30-feet along the highway frontage. Buildings will also be separated, placed and oriented in a manner that will establish view corridors from the highway to the West Maui Mountains. Building setbacks and placement will help to mitigate the WCTs overall impact upon the existing views of Haleakalā and the West Maui Mountains.

While the development will produce an impact upon the character of views fronting the urban lands, it is important to note that the Applicant is also proposing to create a permanent 800-acre agricultural preserve that will exist on both the mauka and makai sides of Honoapi'ilani Highway. The preserves frontage is approximately 7,550 linear feet along the highway from the

southern boundary of the project towards Mā'alaea. The approximate 800-acres of agricultural land will create a permanent open space buffer and permanent separation between Waikapū Town and Mā'alaea. Along this section of the highway, largely unobstructed views of Haleakalā, the West Maui Mountains and partial views of the Pacific Ocean will exist in perpetuity.

## g. Population3

In 2010 the population of Wailuku-Kahului was approximately 53,456, which was about 37% of the island's 2010 population of 144,444. As of mid-year 2015, there were approximately 57,616 residents in the Wailuku-Kahului region and projections of the resident population by 2035, based on County and State Forecasts range from circa 78,800 to 97,100. It is estimated that at buildout of the WCT the de facto population of the Project will be approximately 3,511 4,085 persons, comprised of 3,362 3,921 full-time residents and some 148 163 part-time residents and second home owners. The Project's resident population represents from approximately 8.40% 9.93% to 15.40% 18.51% of the region's projected resident population growth to 2035. It is not expected there will be meaningful in-migration to Maui as a direct result of the operating components of the project.

## h. Housing

According to the MIP (December 2012), there will be a demand for an additional 29,589 housing units on Maui through 2030. Of these units, approximately 10,845 are expected to be built on lands not currently entitled for urban development. The WCT proposes the development of approximately 1,433 residential dwelling units, plus the potential for up to 146 Ohana units, in accordance with the MIP's allocation to the Planned Growth Area. The WCT will offer a mix of single and multi-family housing types to address the diverse housing needs of Maui residents. Due to the Project's Central Maui location and the expected lot and unit size configurations, the Applicant expects that the majority of the Project's market priced housing will be sold at prices considered affordable to Maui County residents earning between 100 and 140 percent of the County's median income as determined by the United States Department of Housing and Urban

\_

<sup>&</sup>lt;sup>3</sup> See Chapter V.B.1. and Appendix A, Exhibit III-Table 5 of the Market Study, Economic Impact Analysis and Public Fiscal Assessment for the methodology used to calculate the Project's population

<sup>&</sup>lt;sup>4</sup> Source: Market Study, Economic Impact Analysis, and Public Fiscal Assessment of the Proposed Waikapū Country Town, July 2015; Prepared by the Hallstrom Group | CBRE, Inc.; Addendum C, Table III-5 (Appendix A)

Development. The WCT will also include workforce housing units pursuant to Chapter 2.96, MCC, "Residential Workforce Housing Policy". These homes will be subject to price controls and resale restrictions to ensure that affordable homes remain available for full-time Maui residents. Housing types within the WCT may include multi-family condominiums, small cottage homes on small lots with common open spaces, traditional single-family lots within a variety of home and lot size configurations, rental apartments, townhomes and larger estate rural lots. The goal is to serve the demands of all Maui residents.

#### i. Economic Impacts

A market study and economic and fiscal impact assessment (FIA) was conducted by the Hallstrom Appraisal Group | CBRE, Inc. and is included as Appendix A in the DEIS FEIS.

The WCT is expected to indirectly support Maui's existing economic base activities by providing much needed housing to serve the island's workforce. The WCT is intended to provide housing along with supporting commercial, employment and institutional uses that will allow for Maui's economic base industries to grow, diversify and become more sustainable, including the island's agricultural industry.

The project will also create direct, indirect and induced short- and long-term positive economic impacts. During the construction phase, the WCT components will directly create an estimated 2,320 2,476 "worker-years" of employment (the equivalent of 52 work weeks at 40 hours per week) in the trades and associated businesses during build-out, averaging about 193 165 worker years annually, with an estimated \$188.3 \$201 million in wages (averaging about \$15.7 \$13.4 million per year). Moreover, the on-going operations and maintenance of the business commercial, and residential components will directly provide an estimated 4,251 worker-years and \$151.6 million in total wages over the 13-year period from opening of the first businesses until full absorption and stabilization are achieved (2018 to 2030). The operating businesses and maintenance of the housing units will support a projected 597 531 "full-time equivalent" positions following stabilization (many of which are anticipated to be held by WCT residents) with annual wages of \$19.5 \$2.2 million. Associated secondary/off-site employment during the overall development and absorption time-frame will total 1,750 1,789 worker-years with wages

of \$89.3 \$91.3 million. After "stabilization" the community will contribute to the support of some 149 secondary/off-site positions with \$7.6 million in yearly wages off-site.

#### j. Fiscal Impacts

It is projected that the County of Maui will realize new Real Property Taxes (\$28.3 \\$27.7 million), other secondary receipts, and impact fees of \$48.8 \\$47.9 million during the 15-year projection period (2016-2030), and \$5 \\$4.9 million annually on a stabilized basis thereafter. The WCT will also be providing approximately 32.5 acres of public park land within the project, of which at least 16.5 acres will be dedicated to the County. After new per capita costs for services are considered the County will earn a net "profit" of \$42.2 million during build-out and \$4.2 million annually after stabilization. The State of Hawai'i will receive Gross Excise and Income taxes, secondary revenues, and impact fees of \$228.0 \\$95.4 million during the 2016-2030 period, and \\$20.0 \\$4.4 million per year thereafter. The State of Hawai'i will also receive a 12-acre elementary school site. Overall, after new per capita governmental costs are deducted, the State will generate net benefits of \$82.6 million during build-out and \$2.9 million annually on a stabilized basis.

As is typical of a residential focused master planned community, with limited commercial components, and having a significant percentage of affordably-priced housing units for local families, the expense to the State and County from a "per capita basis" of all governmental operating costs perspective may exceed the specific on-site tax/fee revenue benefits. However, given Given the existing emergency services and social services infrastructure available in nearby Wailuku and Kahului, the provision of a school site within WCT, payment of impact fees, and young age of the project components, it is unlikely the "actual" public cost burden associated with the project would be greater than the per capita assessment or independently require the need for major new public facilities. exceed the revenues generated.

#### k. Public Facilities

Development of the project will increase demand for public facilities, including police, fire, schools, parks, libraries, and solid waste services. The DEIS FEIS documents the direct demand placed upon these facilities and proposed mitigation measures. The following summarizes proposed mitigation measures:

Schools. The WCT will contribute 12-acres for the development of an elementary school.
 The school site is conveniently located next to the regional park and residential housing.
 The WCT will also pay to the DOE approximately \$2,600,000 in impact fees for construction costs.

- Parks. In order to comply with the County's park land dedication requirement of 500 square feet of land per unit, the project would be required to dedicate approximately 16.5-acres of land for park use. The WCT proposes to dedicate approximately 32.5 acres of sub-regional park land. This land will comprise a variety of park types including miniparks, neighborhood parks and a community park. The parks are strategically located to provide easy pedestrian and bicycle access from the project's single- and multi-family residential neighborhoods and the elementary school. The project also provides approximately 50-acres of greenways and open-space, which will include pedestrian and bicycle paths and will create additional opportunities for passive recreation. Moreover, within the abutting 1,077-acres of agricultural lands owned by the Applicant, opportunities for various forms of open-land recreation such as horseback riding, mountain biking, trail running, hiking and community gardening may also be provided.
- Police and Fire. The WCT will increase demand for police and fire facilities, equipment
  and personal. The Police and Fire Departments receive over ninety percent of their
  funding from the County General Fund, which is funding primarily by property taxes.
   Owners of the developed lots will pay property taxes to the County.
- Solid Waste. The WCT will increase demand for solid waste facilities, equipment and
  personal. The Department of Environmental Management receives most of its funding
  for solid waste collection and disposal from the collection of solid waste fees. Owners of
  the developed lots will pay monthly solid waste collection fees to the County.

#### I. Traffic

A Traffic Impact Analysis Report was prepared by Fehr & Peers in December 2014 to document the impact of the project and propose mitigation measures (See: Appendix L I, "Traffic Impact Analysis Report"). The Traffic Impact Analysis Report (TIAR) analyzed the typical weekday AM and PM traffic conditions under existing conditions and potential project-related traffic impacts at partial buildout in 2022 and at full buildout in 2026. The analysis evaluated the operations at eight existing and six future intersections (a total of 14 study intersections) in the vicinity of the

proposed project. The project will increase traffic within the immediate area as project residents, customers and employees commute to and from the project site. The WCT will contribute to cumulative impacts (LOS E or F conditions) during one or both peak hours and the project will contribute to cumulative impacts (LOS E or F conditions) during one or both peak hours at six of the eighteen intersections. The projects will also have project-specific impacts at two of these intersections where the addition of project-generated traffic would cause the overall intersection operations to degrade below LOS D in the peak hours.

In response to the DEIS, the DPW informed the Applicant by letter dated May 23, 2016 (See: Appendix S, DEIS Agency and Community Comment and Response Letters) that the timing of the Wai'ale Bypass is uncertain and that the Applicant should assume that the roadway may not be constructed. In response, the Applicant contracted with Fehr and Peers to conduct an analysis of the Project's traffic impacts at full buildout in 2026 without the Wai'ale Bypass Road. Fehr & Peers completed the analysis in October 2016 (See: Appendix M, Fehr & Peers Prepared "No Wai'ale Bypass" Memorandum). While three more study intersections would be significantly impacted under this scenario than in the "with Bypass" scenario analyzed in the December 2014 TIAR, LOS D can be achieved at the impacted locations with an expanded program of roadway improvements as mitigation.

In the past, projects would make a fair share financial contribution for each mitigation measure to the appropriate governing agency (i.e., the County or Hawai'i State Department of Transportation (HDOT). However, providing just partial funds for a variety of different improvements does not ensure construction of any individual improvement. More recently, HDOT has indicated a preference for development projects to fully design and build improvements at a select set of locations to ensure their implementation. The WCT proposes a mitigation planning program in the amount of its fair share requirements that would fund improvements at intersections closer to the project site where the project contributes to, but does not directly cause a significant impact. The project proposes to fully fund mitigation measures that would return operations to pre-project levels at those intersections.

During the construction phase, the Applicant will implement a traffic control plan to mitigate impacts to operating conditions along Honoapi'ilani Highway from construction vehicles ingressing and egressing from the Project site.

## m. Utilities and Energy

There are existing power, telephone, and cable television transmission facilities along Honoapi'ilani Highway. If approved by MECO, It is anticipated that the power poles will be relocated underground fronting the project site along Honoapi'ilani Highway. Within the WCT, utility poles will be placed underground within the road right-of-way. It is expected that the project will create a total demand of about 10 megawatts of electricity. The WCT intends to promote the use of renewable energy. The installation of photovoltaic systems will be encouraged on residential and commercial buildings. If forty percent of residential and commercial buildings install photovoltaic systems (generating approximately 11.9 GWh per year), demand for carbon-based fuels could be reduced by roughly 50 percent. Moreover, the WCT desires to install a limited number of solar farms in appropriate locations within the agricultural lands. If two solar farms of approximately 5-acres (0.75 MW each) each are developed, the electricity generated would be about 2.6 GWh per year, which could service approximately 236 residential units. Thus, the WCT could potentially generate about 70 percent of its energy consumption through renewables. However, the installation of such systems will depend upon the technical and financial viability of such systems at the time the project is being constructed.

### n. Drainage

A Preliminary Drainage Report was prepared by Otomo Engineering. The report analyzes current conditions, including drainage patterns, existing improvements, and runoff totals (**See**: Appendix H, "Preliminary Engineering and Drainage Report).

The WCT will produce an increase in impervious surfaces and will therefore be required to capture and treat the increase in runoff from the project. It is estimated that the WCT will be required to mitigate an increase in runoff of 516 cubic feet per second (cfs) and provide a minimum storage volume of 1,528, 233 cubic feet. With the drainage improvements, there will be no increase in runoff from the project site. The design of the stormwater system will include

water quality treatment to reduce the discharge of pollutants to the maximum extent practicable. Some examples of stormwater best management practices (BMPs) are grass swales, open space and parks and stormwater detention. With stormwater detention the stored runoff will infiltrate into the underlying soils and recharge groundwater. Temporary erosion control measures will be incorporated during the construction period to minimize dust and soil erosion. Additional controls will be implemented to protect the Waikapū Stream. Temporary BMPs include the construction of diversion berms and swales, dust fences, silt fences, stabilized construction entrances, truck wash down areas, inlet protection, temporary grassing of graded areas, and slope protection.

#### o. Water

The Preliminary Engineering Report documents existing sources of water and infrastructure improvements that service the property (See: Appendix H, "Preliminary Engineering and Drainage Report). Water and fire protection for the project will be provided from a private onsite water system. Six (6) wells have been drilled on the site. One of these wells is a monitoring well. Three (3) wells have been designated for potable use and two (2) for nonpotable purposes. Water quality testing has been conducted on three of these wells and the testing concluded that these wells are capable of producing potable water of excellent quality. The pump test results demonstrated that the three wells can produce sufficient water to service the Project's potable water demand (See: Appendix I, "Water Resources Associates Results of 10-Day Pumping Tests for Wells 1, 2, and 3". All of the wells are located within the Waikapū Aguifer. A dual water system is proposed to service the development. The non-potable water will provide irrigation to the parks, open space and commercial and residential landscape planting of individual lots. It is estimated that the dual system will reduce potable water demand by at least 33 percent. The projected non-potable water demand for the Project's agricultural lands as well as irrigation of parks and open space is estimated to be 3,420,000 gallons per day (gpd). Sources for the non-potable water are proposed to include surface water from the Iao Stream via the Iao-Waikapū Ditch and Waikapū Stream via the South Waikapū Ditch and Waihee Ditch, agricultural well water and reclaimed water from the Project's wastewater reclamation facility. Based on the water usage, the projected average daily potable water demand for the Project is 655,508 gallons per day (gpd). Water conservation measures,

such as low-flow toilets and shower heads will be utilized throughout and efficient water conserving irrigation practices will also be adopted.

#### p. Wastewater

A Preliminary Engineering Report was prepared for the Draft EIS that assesses current wastewater system capacity and existing infrastructure to support the project (<u>See</u>: Appendix, H, "Preliminary Engineering and Drainage Report").

The Project will produce an increase in demand for wastewater treatment. Based on the "Preliminary Wastewater Report", prepared by Enviniti LLC, dated March 2013 (See: Appendix J), the average wastewater flow estimate for the project is 698,000 gpd and the design maximum flow estimate is 2,449,819 gpd. It is projected that the average daily demand of wastewater generation for the project will be 529,709 gpd. According to the Wastewater Reclamation Division, County of Maui, as of July 31, 2014, the Kahului Wastewater Reclamation Facility (KWRF) has a capacity of 7.9 million gallons per day (mgd). The average flow into the KWRF is 4.7 mgd and the allocated capacity is 6.33 mgd. The remaining wastewater capacity at the KWRF is approximately 1.57 mgd. During pre-consultation for the DEIS, the Department of Environmental Management (DEM) has had noted that in order for the existing collection system to accept flows from the WCT, transmission improvements will would be required along Lower Main Street, Waiko Road, and the Wailuku Pump Station. However, the DEM in their October 13, 2016 letter in response to the DEIS informed the Applicant that the Project would not be allowed to connect to the existing County wastewater collection system and treatment system (See: Appendix S, DEIS Agency and Community Comment and Response Letters). After analyzing various alternatives for treating the Project's wastewater, the Applicant has determined that the preferred alternative is to construct a standalone private wastewater treatment facility. The facility will be designed using the most sustainable technologies available based upon Organica's Food Chain Reactor (FCR) configuration, which consists of biological treatment in successive reactor zones utilizing fixed biomass on a combination of natural plant roots and Organica's engineered biofiber media, along with a limited amount of suspended biomass. This system will also serve the dual purpose of reclaiming the Project's wastewater so that at full buildout it will be able to provide approximately 650,000 gpd of recycled water that can be used for irrigation of the WCT's agricultural lands and urban open spaces. The

Developer is consulting with the Department regarding the opportunity of making such improvements in order to have some of the initial demand generated by the project serviced at the KWRF. However, the WCT will need to construct a stand-alone private wastewater treatment facility, or partner with other projects in the Waikapū area, such as A&B's Wai`ale project or the County of Maui to construct a regional wastewater treatment facility. The Applicant is analyzing several package wastewater treatment options, including a conventional wastewater treatment facility and a facility using a Food Chain Reactor (FCR) configuration.

#### 5. Cumulative and Secondary Impacts

Cumulative impacts are defined as the impact on the environment which results from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Secondary impacts are those that have the potential to occur later in time or farther in the future, but which are reasonably foreseeable. They can be viewed as actions of others that are taken because of the presence of the project.

The gradual build-out of the WCT will produce a range of impacts that are described in the DEIS FEIS. These are the same types of impacts that are projected for the region overtime as population increases and land is developed to accommodate population growth. Cumulative and Secondary impacts resulting from the Project, together with other development planned for Central Maui, will include increased demand upon public infrastructure and facility systems such as traffic, schools, police, fire, wastewater and water. Cumulative and Secondary impacts can also have an effect upon air and water quality, sensitive environmental habitats and natural resources if not property monitored and mitigated. Section VI.B of the DEIS FEIS discusses cumulative and secondary impacts in greater detail.

## 6. Consistency with State and County Plans and Policies

## a. State Land Use Law, Chapter 205, HRS

The State Land Use Law (Chapter 205, HRS), establishes the Land Use Commission (LUC) and authorizes the body to designate all lands in the State into one of four districts: Urban, Rural, Agricultural or Conservation. The WCT comprises about 1,576 acres of which 14 acres are

located within the State Urban District and the remaining lands are within the State Agricultural District. To develop the property as proposed, approximately 335.155 acres will need to be redesignated to the Urban District and 149.848 acres to the Rural District. Section VII.A of the DEIS FEIS discusses the Project's consistency with the State Land Use Law in greater detail.

## b. Coastal Zone Management Act, Chapter 205A, HRS

The Coastal Zone Management (CZM) Area as defined in Chapter 205A includes all of the lands in the State. As such, the property is within the CZM area. Section VII.E of the DEIS FEIS contains a detailed discussion of the Project's compliance with the objectives and policies of the CZM Act.

# c. Hawai'i State Plan, Chapter 226, HRS

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. Section VII.A-B of the DEIS FEIS discusses how the project is either supportive or not supportive of these goals, objectives and policies.

## d. State Functional Plans

The Hawai'i State Plan directs State agencies to prepare functional plans for their respective program areas. There are 14 state functional plans. These plans direct State policy in areas that range from agriculture to the natural environment and economic development. Section VII.D of the DEIS FEIS discusses how the project is either supportive or not supportive of these goals, objectives and policies.

### e. County of Maui General Plan

The General Plan of the County of Maui refers to a hierarchy of planning documents that together set forth future growth and policy direction in the County. The General Plan is comprised of the following documents: 1) County-wide Policy Plan; 2) Maui Island Plan; and 3) nine community plans.

# 1) Countywide Policy Plan

The County-wide Policy Plan was adopted in March 2010 and is a broad policy document that identifies a vision for the future of Maui County. It establishes a set of guiding

principles and provides comprehensive goals, objectives, policies and implementing actions that portray the desired direction of the County's future. The County-wide Policy Plan provides the policy framework for the development of the MIP and nine Community Plans. Section VII.H.1 discusses how the project is either supportive or not supportive of these goals, objectives and policies.

## 2) Maui Island Plan

The MIP functions as a regional plan and addresses the policies and issued that are not confined to just one community plan area, including regional systems such as transportation, utilities and growth management, for the Island of Maui. Together, the Island and Community Plans develop strategies with respect to population density, land use maps, land use regulations, transportation systems, public and community facility locations, water and sewage systems, visitor destinations, urban design and other matters related to development. The MIP was adopted on December 28, 2012. The MIP designates as a "Planned Growth Area" the land area comprising the proposed urban and rural areas that comprise the WCT. Section VII.H.2 of the DEIS FEIS discusses how the project is either supportive or not supportive of these goals, objectives, policies and implementing actions.

# 3) Wailuku-Kahului Community Plan

The Wailuku-Kahului Community Plan designates the urban and rural land proposed for development Agriculture and Wailuku-Kahului Project District No. 5 (Maui Tropical Plantation). Community Plan Amendments are required for the approximate 499 acres of land that are proposed for development. Section VII.H.3 of the DEIS FEIS discusses how the project is either supportive or not supportive of these goals, objectives and policies.

## 4) County of Maui Zoning

The WCT Master Plan will similarly require a Change in Zoning for all lands proposed for development. A new project district zoning ordinance will be created to implement the vision and mix of uses proposed in the WCT Master Plan.

#### 7. Alternatives Considered

The Project alternatives that have been considered are:

- No Action Alternative;
- Develop Fewer Units;
- Develop More Units by Building More Workforce Housing
- Develop at a Lower Density; and
- Develop at an Alternative Location.

The Applicant has also evaluated several alternatives for the treatment of the Project's wastewater. The alternatives analyzed included following:

- 1. Connect to the KWWRF to treat the entire Project;
- 2. Temporarily connect to the KWWRF for the first 650 residential units and then construct a private on-site and/or regional Waikapū wastewater reclamation facility;
- 3. <u>Construct a regional Waikapū wastewater reclamation treatment facility in association with the County of Maui and adjoining property owners;</u>
- 4. Construct a private wastewater reclamation facility on property owned by the Applicant;
- 5. Construct a conventional wastewater treatment plan within the subject property;
- 6. Construct an Organica Food Chain Reactor (FCR) facility within the subject property; and
- 7. No action, which is to not proceed with the Project.

Chapter VIII of the DEIS FEIS contains a discussion of the alternatives.

#### 8. Unresolved Issues

The following issues remain unresolved at the time this document is being prepared:

#### **Wastewater Treatment**

The WCT proposes to complete off-site upgrades to the County's wastewater transmission system in order to temporarily connect to the KWRF for the initial 650 units, or development producing an equivalent amount of wastewater, in the Phase I development. It is unclear at this

time if the County will agree to this proposal. In any event, the Applicant will need to construct a stand-alone private wastewater treatment facility, or partner with the County and other

projects in the Waikapū area, to construct a combined wastewater treatment plant.

Wai`ale By-pass Road Improvements

The Wai'ale Bypass Road is identified in the County's Fiscal Year 2016 Capital Improvement Program for funding between 2017 and 2021. The precise schedule for funding and

development of this roadway is uncertain at this time.

**Elementary School Timing** 

The FEIS assumes that the Project's elementary school will be built within the first phase of the development. Thus, the impacts of the facility are addressed during this phase. However, the precise schedule for development of this State facility will be dependent upon funding from the State Legislature, which the Applicant has no control over. Moreover, the Educational Contribution Agreement (ECA) between the Applicant and the State Department of Education

has not yet been executed.

**Final Water Quality Testing** 

Pump tests and water quality testing for compliance with State DOH water quality standards is being conducted on the Project's three potable wells.

**Renewable Energy Development** 

Development of renewable on-site photovoltaic energy will be dependent upon many factors including financial viability and securing any necessary agreements from MECO.

Amendments to Maui County Code (MCC) Chapter 19.33

Implementation of the Master Plan will require the adoption of a Project District Ordinance, pursuant to MCC Chapter 19.58. It is not yet known whether the ordinance will be adopted through the legislative process. Should the ordinance not be adopted, or be revised significantly, then the ultimate mix of land uses and character of development may be affected.

WAIKAPŪ COUNTRY TOWN

DRAFT FINAL ENVIRONMENTAL IMPACT STATEMENT

*I-43*