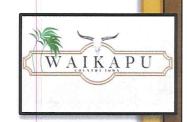
ORIGINAL

# Final Environmental Impact Statement Final Environmental Impact Statement for the STATE OF HAWAII Waikapū Country Town

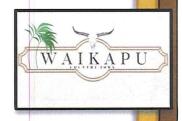
Presented to the Land Use Commission By Waikapu Properties, LLC January 18, 2017



## Timeline of EIS Process

- May 1, 2015
  - Commission authorized proceeding directly to EIS and became accepting authority
- May 23, 2015
  - EIS Preparation Notice published
    - 20 Comments received
- February 8, 2016
  - Draft EIS published
    - 26 Comments received
- December 16, 2016
  - Final EIS completed for Commission review and action
- January 18, 2017
  - Commission review of and action on Final EIS





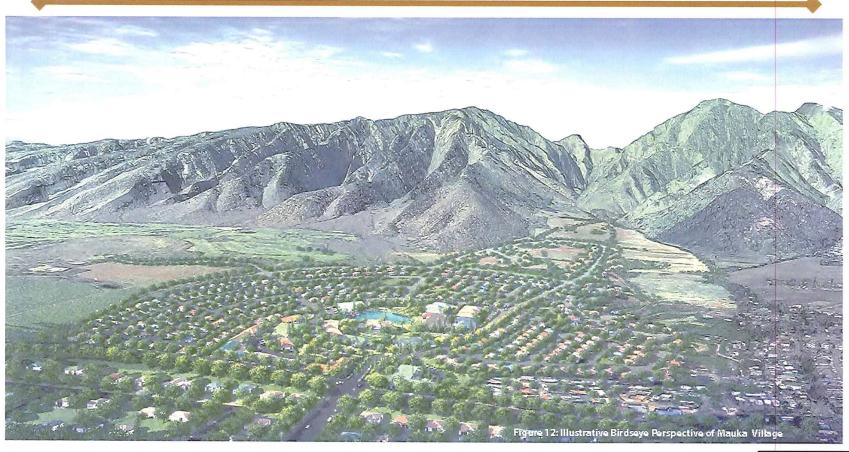
## Representatives and Consultants

- Mike Atherton Waikapu Properties, LLC
- Michael Summers Urban Planning/Agricultural
- Bill Mitchell Urban Design
- Stacy Otomo Civil Engineering
- Nitai Bassu Traffic
- Thomas Holliday Market Studies
- Lisa Rotunno-Hazuka Archaeology
- John Garreston Noise
- Barry Neal Air Quality
- Robert Hobdy Biology
- Kimokeo and Hōkūao Pelegrino Cultural
- Jonathan Nagato Wastewater
- Zoltan Milaskey Wastewater
- Dan Lum Water

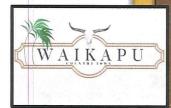




# Waikapū Country Town A Complete Community



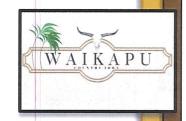




## Overview of Waikapū Country Town

- Location
  - Central Maui at Waikapū
  - About 1576 acres agricultural-1077/rural-150/urban-349
- Agricultural Use 800 acres preserved and 277 acres diversified
- Development complete community
  - Village center with residential, retail, and commercial
- Housing
  - 1433 residential units includes at least 280 residential workforce units
- Neighborhood and community parks
  - 32.5 acres plus 50 acres of greenways
- Elementary school
- Wastewater treatment facility
- Dual Private Water System Potable and Non-potable
- Build-out in 2 phases over 10 years
- Project included in MIP which assessed impacts on infrastructure and public facilities

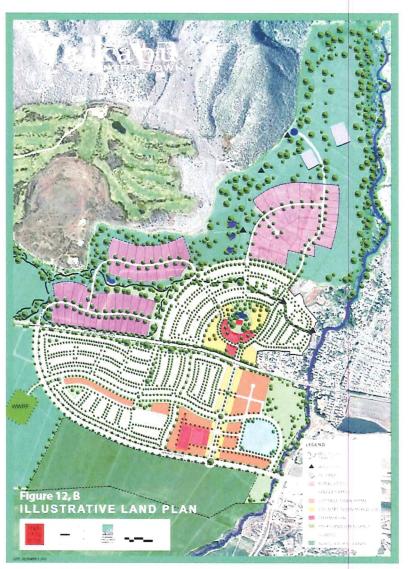




#### Land Uses Waikapū Country Town

- Residential
  - Single Family
  - Cottage Town Home
  - Rural
- Agricultural
- Commercial
- School
- Parks and Open Space
- Wastewater Treatment and Reclamation
- Photovoltaic

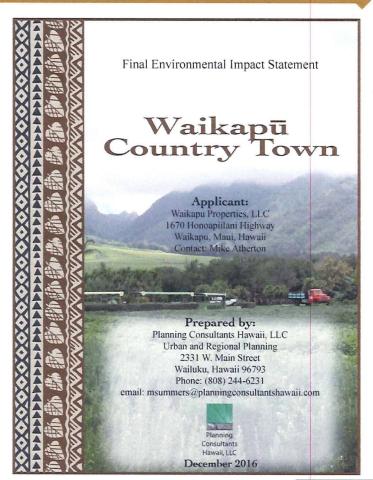






# Waikapū Country Town EIS

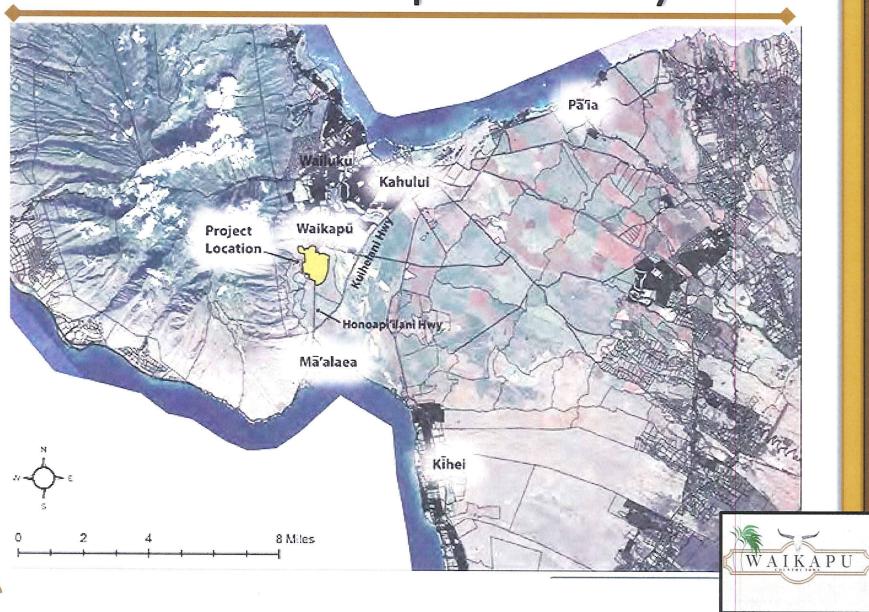
- 715 pages
- 20 Appendices
- Review the Beneficial and Adverse Impacts
- Review the Mitigation Measures
- Seek approval to publish the Final EIS







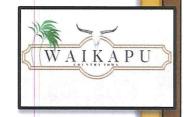
# Location of Waikapū Country Town



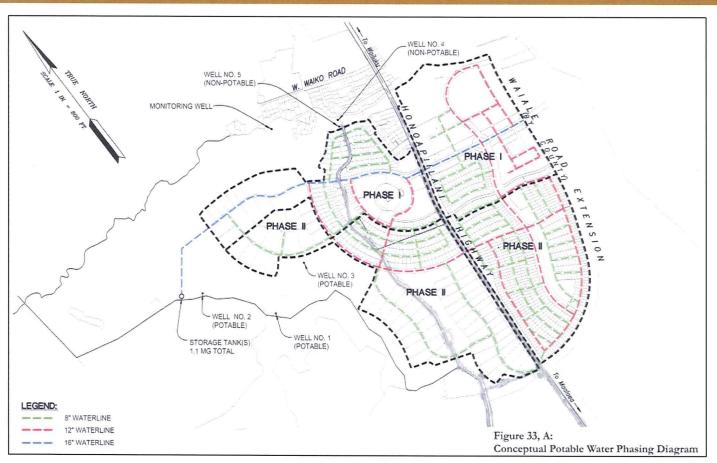
### Water

- Impact by demand of 655,508 gpd potable and 3,420,000 gpd non-potable
- Sources of water:
  - Groundwater from 6 wells on site
  - Reclaimed water from wastewater reclamation facility
  - Surface water from Waikapū Stream and Wailuku River
- Potable water supplied by 3 wells
  - Dual system reduces potable demand by 33 %
- Non-potable supplied by wells, reclaimed water and surface water
- Mitigation will include:
  - Dual system
  - Reclaimed water
  - Low flow toilets
  - Low flow shower heads
  - Water conserving irrigation practices





# Potable Water System







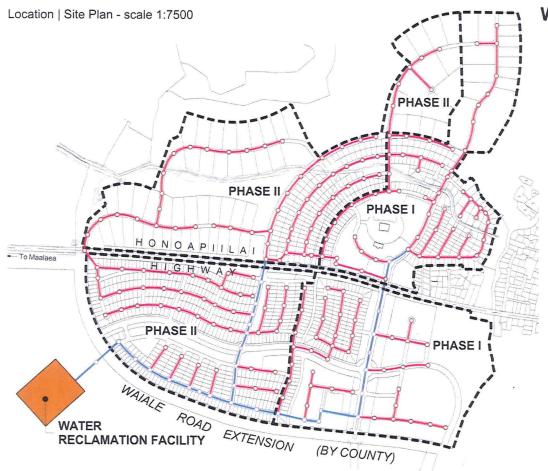
## Wastewater

- Impact by production of an average of 698,000 gpd wastewater
- Mitigation is wastewater treatment facility
  - Preferred mitigation method is standalone wastewater treatment facility
    - Design using sustainable technology based on a Food Chain Reactor configuration
    - Located in area of least impact
    - Will include an educational component





# Wastewater System



Water Reclamation Facility

Z

Proposal - 1

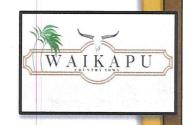


## Water Reclamation Plant

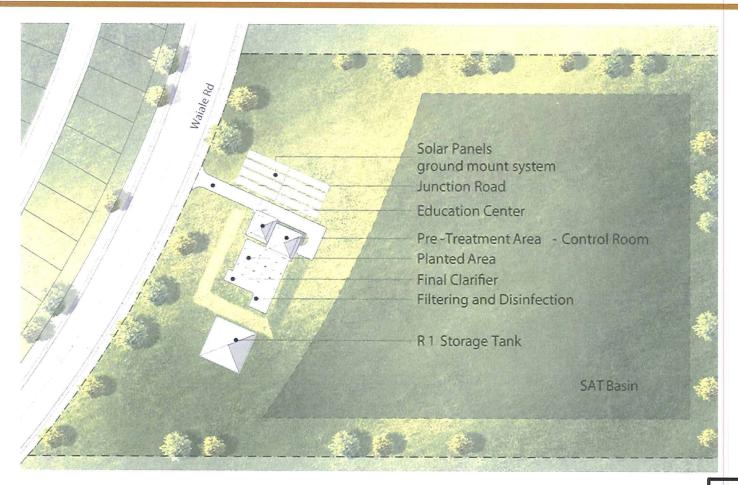


- Wastewater stream treated biologically in successive reactor zones
- At full buildout facility will provide about 650,000 gpd of recycled water for irrigation use





## Water Reclamation – Site Plan



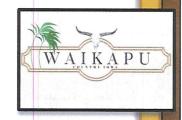




## Housing

- Project will provide about 15 % of the housing units needed on lands not currently entitled in Central Maui area
- Project will include residential workforce housing
  - Comply with County Residential Workforce
     Housing Ordinance





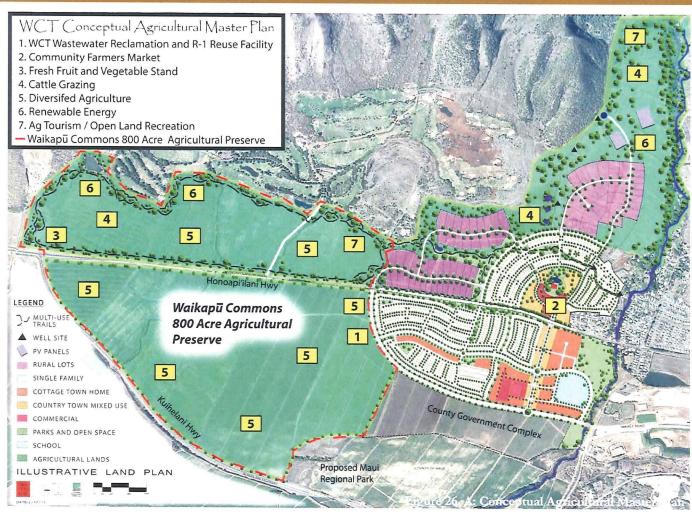
## Agricultural Lands

- Impact by reduction of IAL by about 500 acres
- Mitigation of impacts by:
  - Permanent dedication of about 800 acres of land to agricultural use
  - Creation of agricultural park within the dedicated agricultural land
  - Divide about 277 acres into 5 lots which retain agricultural classification





## Uses on Dedicated Agricultural Lands



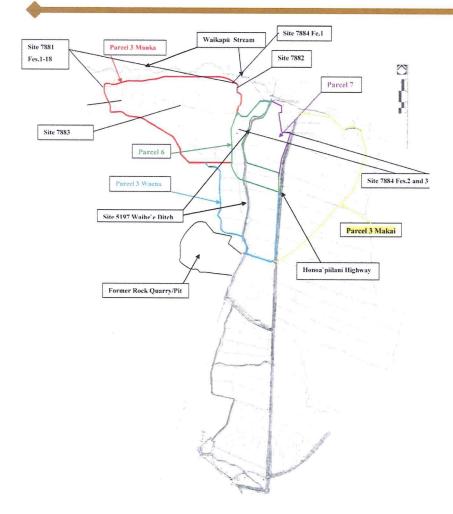


# Archaeological

- No evidence of traditional Hawaiian activities found with possible exception of Site 7882
  - Site 7882 is a disturbed, historic L-shaped
     retaining wall in area that is not being urbanized
- Possible that subsurface features will be found during construction
  - Mitigation by preparation of Archaeological Monitoring Plan submitted to SHPD for review and approval before construction



# Identification of Historic Properties



- Site 5197 Waihe'e Ditch
- Site 7881 agricultural waterways, sluice gates, reservoirs
- Site 7882 L-shaped retaining wall
- Site 7883 WWII bunker
- Site 7884 secondarily deposited historic materials



## **Cultural Resources**

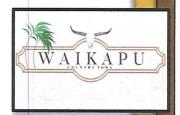
- May impact Hawaiian subsistence and residential agriculture practiced on kuleana lands
- May impact Waikapū Stream which is a valuable cultural resource
- Mitigation includes:
  - Keeping 2 kuleana lots within ag lands
  - Establishing 100 foot buffer along Waikapū Stream
  - Working with kuleana farmers to maintain and manage plantation irrigation infrastructure
  - Working with Hui Mālama o Waikapū to develop access management programs
  - Obtain and comply with permitting by CWRM for withdrawal of groundwater from Waikapū aquifer and surface water from 'lao and Waihe'e Streams



## Visual Resources

- Haleakala and West Maui Mountain views will be impacted by development along highway
- Mitigation will include:
  - Setbacks of 75 feet from highway
  - Height restrictions of 30 feet on buildings next to highway
  - View corridors from highway to West Maui mountains
  - 800 acres set aside as an agricultural preserve





# Coastal Water Quality

- Impact from runoff during construction and after build-out
- Mitigation by:
  - During construction
    - Implement BMPs
  - After build-out
    - Capture increased runoff on site in detention basins
    - Grass swales / park / greenways





## Traffic

#### **With Waiale Bypass**

- Project will increase traffic resulting in unacceptable level of service at 7 intersections
  - 5 cumulative / 2 Project

#### Mitigation

- Roadway improvements to reach level of service D or better at 3 intersections
- Improvements at remaining
   4 implemented by others

#### **Without Waiale Bypass**

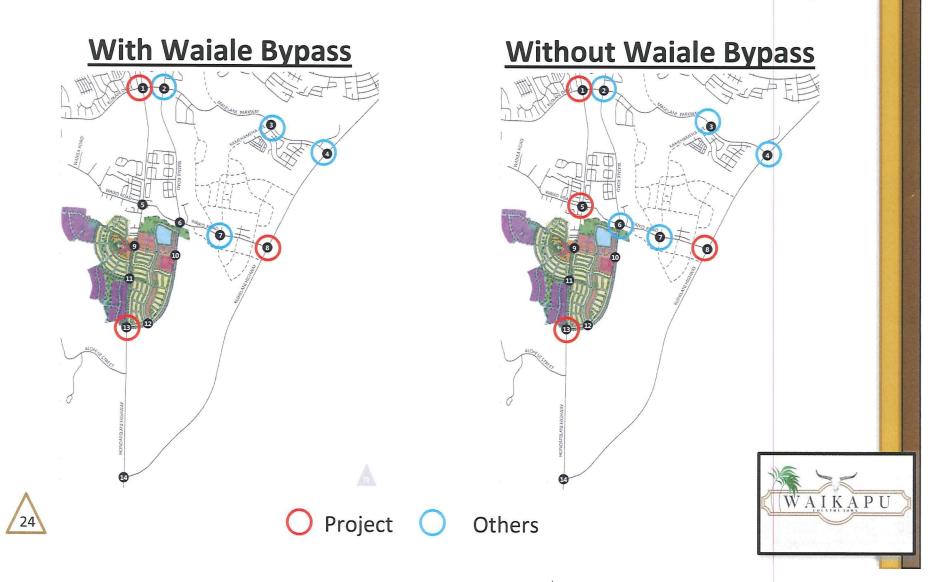
- Project will increase traffic resulting in unacceptable level of service at 9 intersections
  - 7 cumulative / 4 Project

#### Mitigation

- Roadway improvements to reach level of service D or better at 4 intersections
- Improvements at remaining 5 intersections implemented by others



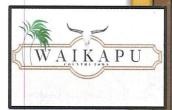
# Intersections For Mitigation



## Traffic Mitigation Planning Program

- Historically projects made fair share financial contributions for mitigation measures
- Proposal is to implement Mitigation Planning Program
  - Waikapu Properties, LLC will enter into agreement with County of Maui to identify triggering events and percentage of funding required for implementation of intersection mitigation measures

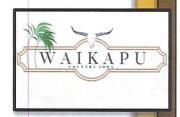




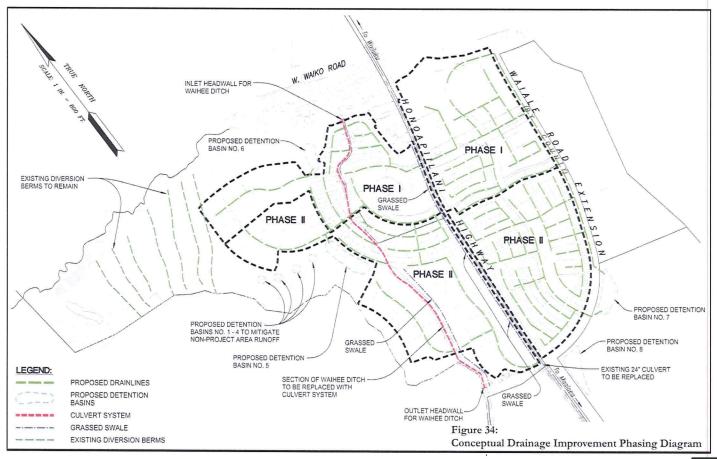
## Drainage

- Impact is increased runoff due to increase in impervious surfaces
  - Increase will be about 516 cfs
- Mitigation will include:
  - Drainage improvements
    - To capture increase in runoff on Project site
    - To provide for onsite storage of 1,528,233 cubic feet
  - Design to reduce pollutant discharge to maximum extent practicable through use of:
    - Grass swales
    - Open space and parks
    - Stormwater detention
    - Diversion berms to protect Waikapū Stream

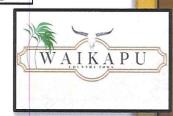




## Stormwater Detention Basins







## Flora and Fauna

- Project will not have significant negative impact on plants ... no mitigation is required
- Project will not have significant negative impact on mammals
- Project may have an impact on Blackburn's sphinx moth – 2 Tree Tobacco plants found
  - Mitigation will be by compliance with Fish & Wildlife guidelines involving Tree Tobacco plants if plants exist at time of build-out

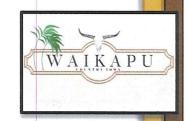




## Air Quality

- Fugitive dust from construction activities will have short term impact on air quality
  - Mitigation will by effected by watering of active work areas, using wind screens, keeping adjacent roads clean, and covering open bodied trucks
- Air quality modeling study revealed no long-term impact on air quality due to project related traffic
  - Wastewater reclamation facility to be designed and operated to keep odor at boundary below detectible levels





# **Noise Quality**

- Noise from construction activities will have a short term impact
  - Mitigation may include temporary noise barriers and time of day usage limits
- Noise from highways will have a long term impact
  - Mitigation will include a minimum setback of 60 feet from the highway
- Noise from wastewater reclamation facility will not have an impact



## Infrastructure and Public Utilities

#### Recreational Resources

 Project will supply 32.5 acres park plus 50 acres greenways and open space which exceeds County requirements

#### Medical Facilities

 Minimal impact of 3.3 beds for critical care and .184 ambulance

#### Police

Project will require 10.5 added personnel

#### Fire

 New fire station in Waikapū will comply with County requirements of distance for response times

#### Schools

- About 600 students expected
- Education agreement being negotiated
  - \$2,606,829 in impact fees
  - 11.4 acres in land dedication

#### Solid Waste

- 2,795 tons generated annually
- Will comply with County requirements
- Explore establishment of a community composting facility

#### Utilities

 Promote private renewable energy sources such as photovoltaic on residential and commercial structures





## Population

- Resident population of Project expected to be 3,921
  - will be between 10 and 18 % of the Wailuku-Kahului region total population
- Project will provide housing for residents and is expected to support first-home ownership





# Waikapū Country Town A Complete Community

