

**RICHARD T. BISSEN, JR.**

Mayor

**SHAYNE R. AGAWA, P.E.**

Director

**ROBERT SCHMIDT**

Deputy Director

**MICHAEL KEHANO, P.E.**

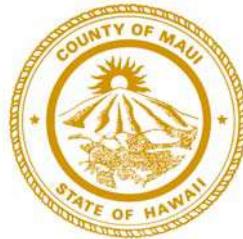
Solid Waste Division

**ERIC A. NAKAGAWA, P.E.**

Wastewater Reclamation Division

**TAMARA L. FARNSWORTH**

Environmental Protection &  
Sustainability Division



**COUNTY OF MAUI  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT**  
2145 KAOHU STREET, SUITE 102  
WAILUKU, MAUI, HAWAII 96793

June 27, 2023

Mary Alice Evans, Acting Director  
Office of Planning and Sustainable Development  
Environmental Review Program  
State of Hawai'i  
235 South Beretania Street, Room 702  
Honolulu, Hawai'i 96813

**SUBJECT:** Environmental Impact Statement Preparation Notice (EISPN) for the Proposed County of Maui Central Maui Wastewater Reclamation Facility; Maui, Hawai'i

Dear Ms. Evans:

With this letter, we hereby submit the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed County of Maui, Department of Environmental Management (DEM) Central Maui Wastewater Reclamation Facility located in Central Maui, Hawai'i. The affected properties include parcels identified by Tax Map Keys (TMKs) (2)3-5-001:017 (por.) and :120 (por.), (2)3-5-002:014 (por.), (2)3-5-020:036 (por.), (2)3-6-002:003(por.) and 004(por.), (2)3-8-005:023 (por.), portions of Waikapū Stream, and portions of the existing Wai'ale Road, Kuikahi Drive, and Waiko Road rights-of-way (ROWS).

We are providing this EISPN electronically via the "*Submittal Form for HRS Chapter 343 Publications in the Periodic Bulletin*." This submittal includes a searchable pdf file of the EISPN and a .zip file containing a shapefile of the action location boundary. If there are any questions, please contact our consultant, Yukino Uchiyama of Munekiyo Hiraga at (808) 983-1233.

Very truly yours,

A handwritten signature in black ink, appearing to read "Shayne R. Agawa".

cn=Robert Schmidt, o=Deputy  
Director, ou=Dept of Environmental  
Management,  
email=Robert.Schmidt@co.maui.hi.  
us, c=US  
2023.06.28 06:49:32 -1000

for Shayne R. Agawa, P.E., Director

cc: Yukino Uchiyama, Munekiyo Hiraga

**From:** [webmaster@hawaii.gov](mailto:webmaster@hawaii.gov)  
**To:** [DBEDT OPSD Environmental Review Program](#)  
**Subject:** New online submission for The Environmental Notice  
**Date:** Friday, July 14, 2023 11:29:06 AM

<b>Action Name</b>
Central Maui Wastewater Reclamation Facility
<b>Type of Document/Determination</b>
Environmental impact statement preparation notice (EISPN)
<b>HRS §343-5(a) Trigger(s)</b>
<ul style="list-style-type: none"><li>● (1) Propose the use of state or county lands or the use of state or county funds</li><li>● (6) Propose any amendments to existing county general plans where the amendment would result in designations other than agriculture, conservation, or preservation</li><li>● (9)(A) Propose any wastewater treatment unit, except an individual wastewater system or a wastewater treatment unit serving fewer than fifty single-family dwellings or the equivalent</li></ul>
<b>Judicial district</b>
Wailuku, Maui
<b>Tax Map Key(s) (TMK(s))</b>
(2)3-5-001:017 (por.) and 120 (por.), (2)3-5-002:014 (por.), (2)3-5-020:036 (por.), (2)3-6-002:003(por.) and 004(por.), and (2)3-8-005:023 (por.), portions of Waikapū Stream, and portions of the existing Wai‘ale Road, Kuikahi Drive, and Waiko Road rights-of-way (ROWS).
<b>Action type</b>
Agency
<b>Other required permits and approvals</b>
National Environmental Policy Act (NEPA) compliance, as applicable; U.S. Department of Army (DA) Permit (DA), as applicable; Chapter 6E, HRS, Historic Preservation Compliance; National Pollutant Discharge Elimination System (NPDES) Permit; Noise Permit, as applicable; Section 401 Water Quality Certification, as applicable (if DA permit required); Coastal Zone Management Consistency Determination, as applicable (if DA permit required) HAR 11-62, Wastewater systems, Approval to Construct and Approval to Operate; District Boundary Amendment (less than 15 acres)/Community Plan Amendment/Change of Zoning; building and construction permits.
<b>Proposing/determining agency</b>
County of Maui, Department of Environmental Management
<b>Agency contact name</b>
Juan Rivera
<b>Agency contact email (for info about the action)</b>
<a href="mailto:environmental.mgmt@co.maui.hi.us">environmental.mgmt@co.maui.hi.us</a>
<b>Email address or URL for receiving comments</b>
<a href="mailto:CentralMauiWWRF@munekiyo.hiraga.com">CentralMauiWWRF@munekiyo.hiraga.com</a>
<b>Agency contact phone</b>

(808) 270-7268

**Agency address**

2200 Main Street  
Suite 610  
Wailuku, Hawai'i 96793  
United States  
[Map It](#)

**Public Scoping Meeting information**

August 16, 2023 at 6:00 p.m. Waikapū Community Center (22 East Waiko Road, Waikapū, Maui, HI 96793)

**Accepting authority**

County of Maui, Department of Environmental Management

**Accepting authority contact name**

Juan Rivera

**Accepting authority contact email or URL**

[environmental.mgmt@co.maui.hi.us](mailto:environmental.mgmt@co.maui.hi.us)

**Accepting authority contact phone**

(808) 270-7268

**Accepting authority address**

2200 Main Street  
Suite 610  
Wailuku, Hawai'i 96793  
United States  
[Map It](#)

**Was this submittal prepared by a consultant?**

Yes

**Consultant**

Munekiyo Hiraga

**Consultant contact name**

Yukino Uchiyama

**Consultant contact email**

[CentralMauiWWRF@munekiyyhiraga.com](mailto:CentralMauiWWRF@munekiyyhiraga.com)

**Consultant contact phone**

(808) 983-1233

**Consultant address**

305 High Street  
Suite 104  
Wailuku, Hawai'i 96793  
United States  
[Map It](#)

## Action summary

The County of Maui, Department of Environmental Management (DEM) is proposing to develop a new Central Maui Wastewater Reclamation Facility (WWRF) and onsite Soil Aquifer Treatment (SAT) basin on approximately 14.9 acres of former agricultural lands between Honoapi‘ilani Highway and Kuihelani Highway as well as related offsite infrastructure improvements. Offsite improvements consist of a wastewater pump station (WWPS) near the existing master-planned Kehalani community, a sewage pipeline from the Kehalani WWPS to the WWRF, portions of sewage pipeline and R-1 recycled water transmission line that connect the WWRF and the future Waikapū Country Town development, and a WWRF access road. The proposed WWRF will service existing and planned developments throughout the Waikapū/Wailuku area, as well as State of Hawai‘i projects in Pūlehunui.

## Attached documents (signed agency letter & EA/EIS)

- [COM-DEM-Proposed-Central-Maui-WWRF\\_EISP\\_N\\_July-2023.pdf](#)
- [COM-DEM-Proposed-Central-Maui-WWRF\\_ERP-Transmittal-06.27.23.pdf](#)

## Action location map

- [COM-DEM-Proposed-Central-Maui-WWRF\\_EISPN.Shapefiles.zip](#)

## Authorized individual

Yukino Uchiyama

## Authorization

- The above named authorized individual hereby certifies that he/she has the authority to make this submission.

# **Environmental Impact Statement Preparation Notice**

## **PROPOSED CENTRAL MAUI WASTEWATER RECLAMATION FACILITY, MAUI, HAWAI'I**

**Prepared for:**

**County of Maui, Department of  
Environmental Management**

**Accepting Authority:**

**County of Maui, Department of  
Environmental Management**

**July 2023**

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by Munekiyo Hiraga



**MUNEKIYO HIRAGA**

Planning. Project Management. Sustainable Solutions.

# **Environmental Impact Statement Preparation Notice**

## **PROPOSED CENTRAL MAUI WASTEWATER RECLAMATION FACILITY, MAUI, HAWAI‘I**

**Prepared for:**

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**July 2023**

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Department of Environmental Management as Accepting Authority
- Appendix B.** Letter from Department of Planning Dated February 10, 2023 Regarding Maui  
County Council Processing of District Boundary Amendment

## List of Acronyms

AcA	Alae cobbly sand loam - 0 to 3 percent slopes
ALISH	Agricultural Lands of Importance to the State of Hawai'i
amsl	Above Mean Sea Level
BMP	Best Management Practices
BNR	Biological Nutrient Removal
CIA	Cultural Impact Assessment
COZ	Change of Zoning
CPA	Community Plan Amendment
CTMP	Construction Traffic Management Plan
CUP	County Special Use Permit
CWG	Core Working Group
CZM	Coastal Zone Management
DA	Department of the Army
DBA	District Boundary Amendment
DEM	Department of Environmental Management
DOE	Department of Education
DOH	Department of Health
DPW	Department of Public Works
DWS	Department of Water Supply
EaA	Ewa silty clay loam – 0 to 3 percent slopes
EIS	Environmental Impact Statement
EISPN	Environmental Impact Statement Preparation Notice
ERP	Environmental Review Program
ESA	Endangered Species Act
EsA	Ewa silty clay – 0 to 3 percent slopes
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
GHG	Greenhouse Gases
HAR	Hawai'i Administrative Rules
HCZMP	Hawai'i Coastal Zone Management Program
HRS	Hawai'i Revised Statutes
IaA	Iao silty clay – 0 to 3 percent slopes
IcB	Iao silty clay – 3 to 7 percent slopes
Jac	Jaucus sand – 0 to 15 percent slopes
LSB	Land Study Bureau
LUC	Land Use Commission
MBR	Membrane Bioreactor
MCC	Maui County Code
mgd	Million Gallons Per Day
MIP	Maui Island Plan
MLE	Modified Ludack-Ettinger
MPC	Maui Planning Commission
MPD	Maui Police Department
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
OHA	Office of Hawaiian Affairs
PEDR	Preliminary Engineering and Drainage Report
PpA	Pulehu silt loam – 0 to 3 percent slopes

PpB	Pulehu silt loam – 3 to 7 percent slopes
PtA	Pulehu cobbley clay loam – 0 to 3 percent slopes
PtB	Pulehu cobbley clay loam – 2 to 6 percent slopes
PZUE	Puuone sand – 7 to 30 percent slopes
RAS	Return Activated Sludge
RGB	Rural Growth Boundaries
ROW	Right-of-way
SAT	Soil Aquifer Treatment
SHPD	State Historic Preservation Division
SMA	Special Management Area
STB	Small Town Boundaries
SUP	Special Use Permit
TIAR	Traffic Impact Assessment Report
TMK	Tax Map Key
UGB	Urban Growth Boundary
UHMC	University of Hawai'i Maui College
USACE	U.S. Army Corps of Engineers
WWPS	Wastewater Pump Station
WWRD	Wastewater Reclamation Division
WWRF	Wastewater Reclamation Facility

## **Executive Summary**

<b>Project Name:</b>	Proposed Central Maui Wastewater Reclamation Facility
<b>Type of Document:</b>	Environmental Impact Statement (EIS) Preparation Notice
<b>Legal Authority:</b>	Chapter 343, Hawai'i Revised Statutes Title 11, Chapter 200.1, Hawai'i Administrative Rules
<b>Determination:</b>	EIS to be prepared
<b>Applicable Chapter 343, HRS “Triggers”:</b>	Use of County Lands and State and County Funds Amendment to County General Plans (Community Plan Amendment) Proposed Wastewater Treatment Unit
<b>Location:</b>	Maui Island Central Maui TMK Nos. (2)3-5-001:017 (por.) and 120 (por.), (2)3-5-002:014 (por.), (2)3-5-020:036 (por.), (2)3-6-002:003(por.) and 004(por.), and (2)3-8-005:023 (por.), Waikapū Stream, Wai'ale Road (Right-of-Way (ROW)), Kuikahi Drive (ROW) and Waiko Road (ROW)
<b>Landowners:</b>	County of Maui Waiale 905 Partners, LLC Kehalani Holdings Company Inc. Waiko Baseyard LLC
<b>Proposing Agency:</b>	County of Maui Department of Environmental Management 2200 Main Street, Suite 610 Wailuku, Hawai'i 96793 Contact: Juan Rivera, P.E., Capital Improvements Projects Program Manager Telephone No. (808) 270-7268
<b>Accepting Authority:</b>	County of Maui Department of Environmental Management 2200 Main Street, Suite 610 Wailuku, Hawai'i 96793 Contact: Juan Rivera, P.E., Capital Improvements Projects Program Manager Telephone No. (808) 270-7268

**Consultant:** Munekiyo Hiraga  
305 High Street, Suite 104  
Wailuku, Hawai'i 96793  
Contact: Yukino Uchiyama, AICP, Senior Associate  
Phone: (808) 983-1233  
Email: CentralMauiWWRF@munekiyohiraga.com

**Project Summary:** The County of Maui, Department of Environmental Management (DEM) is proposing to develop a new Central Maui Wastewater Reclamation Facility (WWRF) and onsite Soil Aquifer Treatment (SAT) basin on approximately 14.9 acres of former agricultural lands between Honoapi'ilani Highway and Kuihelani Highway as well as related offsite infrastructure improvements. Offsite improvements consist of a wastewater pump station (WWPS) near the existing master-planned Kehalani community, a sewage pipeline from the Kehalani WWPS to the WWRF, portions of sewage pipeline and R-1 recycled water pipeline that connect the WWRF and the future Waikapū Country Town development, and a WWRF access road. The total project area (onsite and offsite improvements) is approximately 21.5 acres.

The proposed WWRF will service existing and planned developments throughout the Waikapū/Wailuku area, as well as State of Hawai'i projects in Pūlehunui. Implementation of this new WWRF will reduce wastewater flows currently being handled by the Wailuku-Kahului WWRF, the main wastewater treatment facility servicing the Central Maui region.

The majority of the project components are located within undeveloped lands and rights-of-way owned by the County of Maui, except for the Kehalani WWPS proposed to be located on the periphery of an existing stormwater basin parcel owned by the County of Maui and portions of pipeline alignments which are located on lands currently owned by private landowners. The proposed development of a WWRF and related improvements involving use of County lands and County/State funds and a Community Plan Amendment (CPA) are triggers for compliance with environmental review requirements pursuant to Chapter 343, Hawai'i Revised Statutes (HRS) and Chapter 200.1, Hawai'i Administrative Rules (HAR). Due to the scale and potential impacts of the proposed Central Maui WWRF Project, DEM has determined that an Environmental Impact Statement (EIS) should be prepared. The Accepting Authority will be DEM. In addition, the use of federal funds may be pursued for the proposed project. In such event that said funds are secured and utilized by the County of Maui, the DEM will work with the relevant federal agency to comply with the applicable

provisions of the National Environmental Policy Act (NEPA) and any related consultation requirements.

The WWRF and SAT project site is approximately 14.9 acres and is located on lands designated “Agricultural” by the State Land Use Commission, designated for “Agriculture” use in the Wailuku-Kahului Community Plan, and zoned “Agricultural” district by the County of Maui. Development of the WWRF and SAT will require a State Land Use Commission District Boundary Amendment (DBA), CPA, and Change of Zoning (COZ) approvals. According to Section 15-15-77, Hawai‘i Administrative Rules (HAR), a DBA for projects less than 15 acres will be processed by each County’s land use decision-making authority. Inasmuch as the project site for the WWRF and SAT is less than 15 acres and located within the County of Maui, a DBA for the project will be required from the Maui County Council. In addition, CPA and COZ applications will be processed concurrently with the DBA and will be reviewed by the County Council. It is noted that the DBA/CPA/COZ applications will be initiated by the Planning Director. Once completed, the Final EIS will act as the primary technical supporting document for the above-referenced DBA, CPA, and COZ applications for the project.

# PROJECT OVERVIEW

# I. PROJECT OVERVIEW

## A. PROJECT LOCATION, LAND OWNERSHIP, AND EXISTING USE

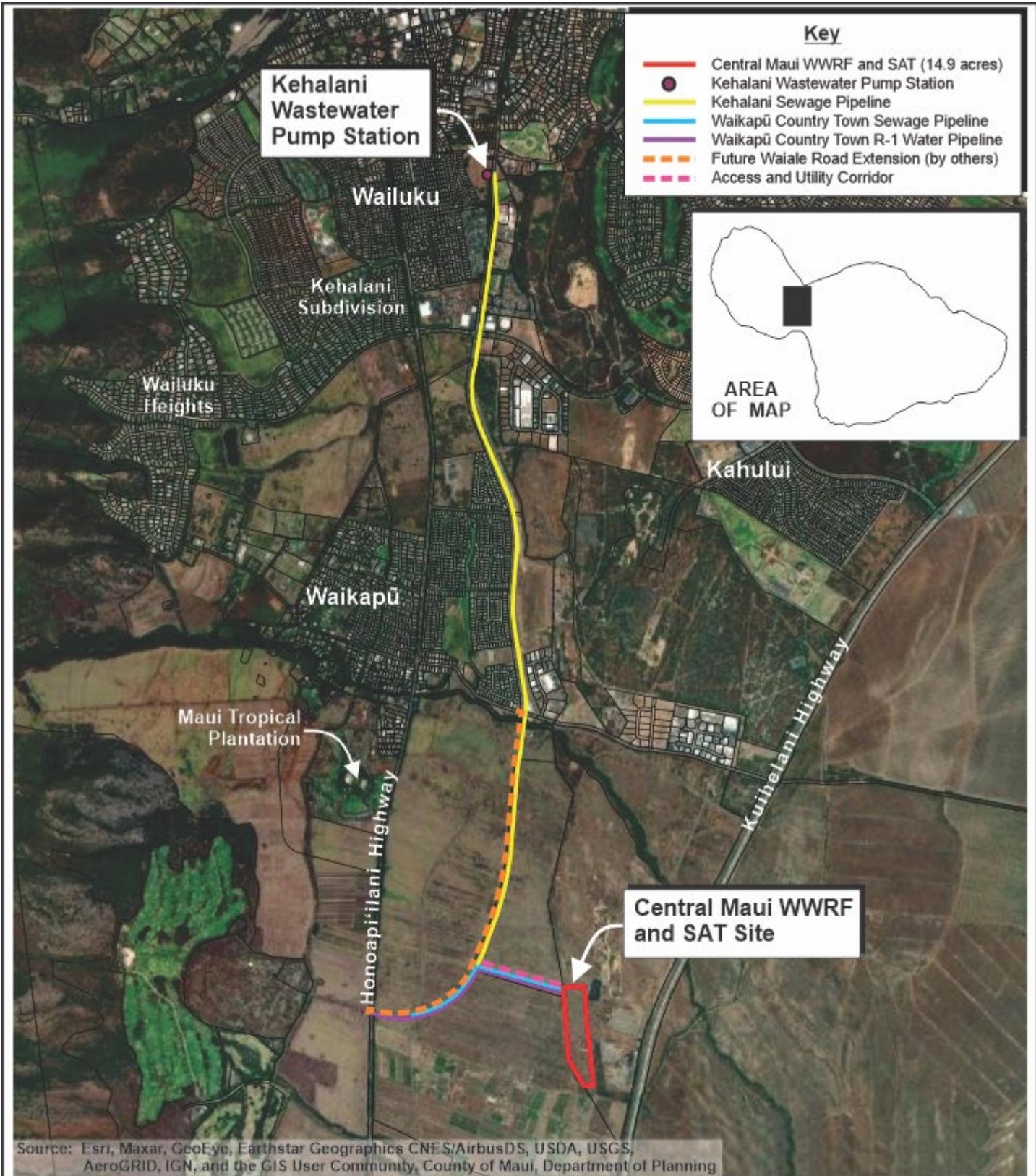
The County of Maui, Department of Environmental Management (DEM) Wastewater Reclamation Division (WWRD) proposes to develop a new Central Maui Wastewater Reclamation Facility (WWRF) and onsite Soil Aquifer Treatment (SAT) system on approximately 14.9 acres of former agricultural lands between Honoapi'ilani Highway and Kuihelani Highway in the vicinity of Waikapū as well as related offsite infrastructure improvements. Offsite improvements consist of a wastewater pump station (WWPS) near the existing master-planned Kehalani community ("Kehalani WWPS"), a sewage pipeline from the Kehalani WWPS to the WWRF ("Kehalani Sewage Pipeline"), portions of sewage pipeline and R-1 recycled water pipeline that connect the WWRF and the future Waikapū Country Town development ("Waikapū Country Town Sewage Pipeline" and "Waikapū Country Town R-1 Recycled Water Pipeline"), and a WWRF access road. The WWRF access road will be provided from the Wai'ale Road extension proposed by the County of Maui, Department of Public Works. The total project area (onsite and offsite improvements) is approximately 21.5 acres.

The proposed WWRF will service existing and planned developments throughout the Waikapū/Wailuku area as well as State of Hawai'i projects in Pūlehunui. Implementation of this new WWRF will serve to reduce wastewater flows currently being handled by the Wailuku-Kahului WWRF, the main wastewater treatment facility servicing the Central Maui region.

The majority of the project components are located within undeveloped lands and rights-of-way (ROW) owned by the County of Maui, except for the Kehalani WWPS proposed to be located on the periphery of an existing stormwater basin parcel owned by the County of Maui and portions of pipeline alignments, which will be located on lands currently owned by private landowners. The project components, locations, land ownership, and existing uses are summarized in **Table 1** below. See **Figure 1** and **Figure 2**.

**Table 1.** Project Location and Land Ownership

<b>Project Component</b>	<b>Tax Map Key (TMK) and/or Location</b>	<b>Land Ownership</b>	<b>Existing Use</b>
Central Maui WWRF and Onsite SAT System	TMK (2)3-8-005:023 (por.)	County of Maui	Vacant
Kehalani Sewage Pipeline	Existing Wai'ale Road (ROW)	County of Maui	Roadway
	Existing Waiko Road (ROW)	County of Maui	Roadway
	Existing Kuikahi Drive (ROW)	County of Maui	Roadway
	TMK (2)3-5-001:017 (por.)	Kehalani Holdings Company Inc.	Roadway
	TMK (2)3-5-001:120 (por.)	Kehalani Holdings Company Inc.	Roadway
	TMK (2)3-5-002:014 (por.)	Waiko Baseyard LLC	Vacant
	TMK (2)3-5-002:888 (Waikapū Stream)	Unknown	Stream
	Future Wai'ale Road extension (by others) (TMK (2)3-6-002:003(por.))	Waiale 905 Partners, LLC	Vacant
	Future Wai'ale Road extension (by others) and access and utility corridor (TMK (2)3-6-002:004(por.))	County of Maui	Vacant
	TMK (2)3-8-005:023(por.)	County of Maui	Vacant
Kehalani WWPS	TMK (2)3-5-020:036 (por.)	County of Maui	Stormwater Basin
Waikapū Country Town Sewage Pipeline and R-1 Recycled Water Pipeline	Future Wai'ale Road extension (by others) (TMK (2)3-6-002:003 (por.))	Waiale 905 Partners, LLC	Vacant
	Future Wai'ale Road extension (by others) and access and utility corridor (TMK (2)3-6-002:004(por.))	County of Maui	Vacant
	TMK (2)3-8-005:023(por.)	County of Maui	Vacant



**Figure 1 Proposed Central Maui Wastewater Reclamation Facility Project Location Map**



Prepared for: County of Maui, Department of Environmental Management

MUNEKIYO HIRAGA

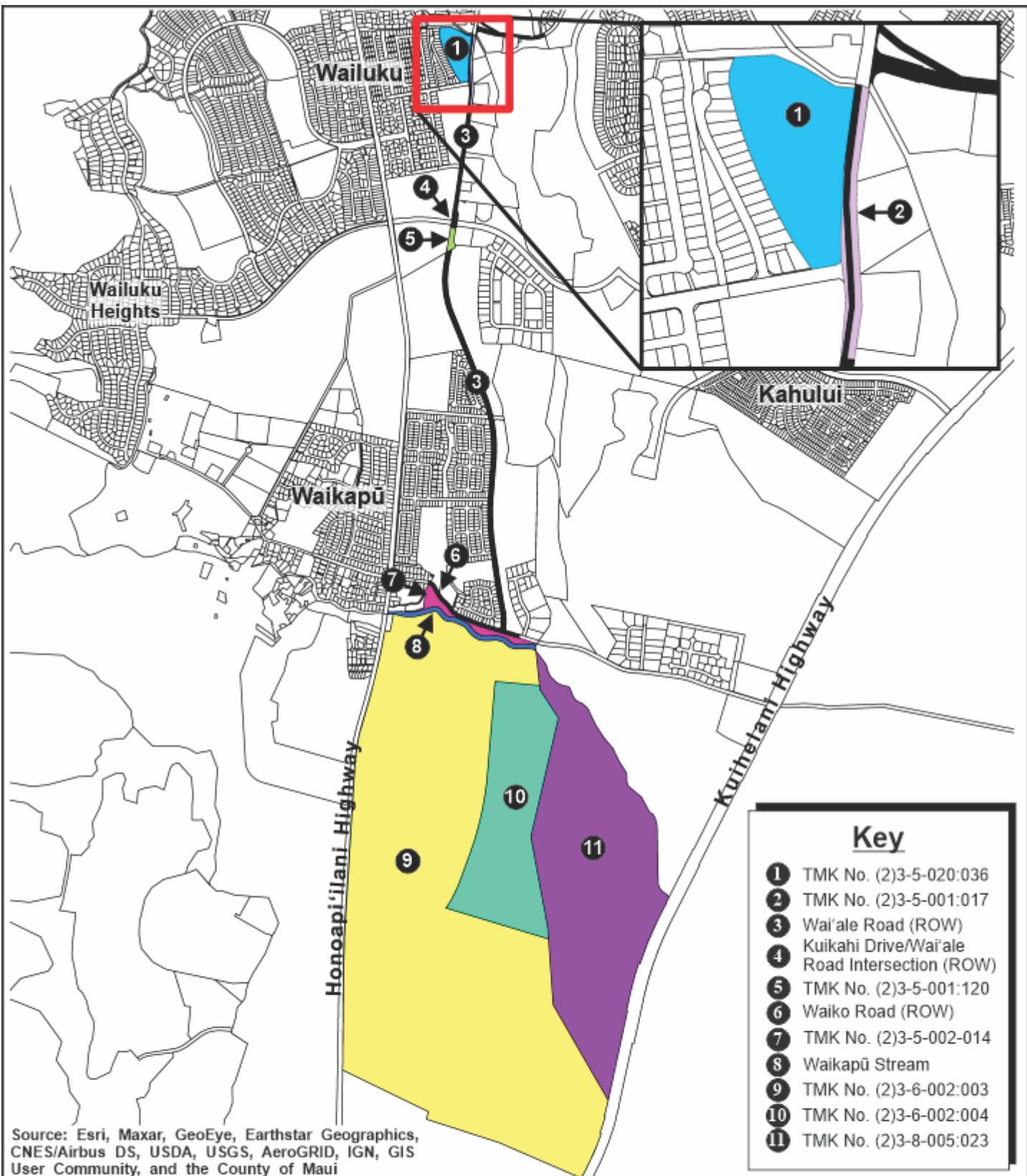


Figure 2 Proposed Central Maui Wastewater Reclamation Facility Affected TMK Parcels Map



Prepared for: County of Maui, Department of Environmental Management

MUNEKIYO HIRAGA

COM/DEM Cmaul WW Infrastructure/Applications/FIGURES/TMK Rev

## **B. PROPOSED ACTION**

The proposed action consists of the following components:

### **1. Central Maui WWRF and Onsite SAT (14.9 acres)**

The Central Maui WWRF and onsite SAT will be designed to accommodate four (4) million gallons per day (mgd) of wastewater and will consist of 10 components, which include:

- (1) Headworks (screening, grit removal, and septage receiving station)
- (2) Activated Sludge
- (3) Secondary Clarifiers
- (4) R-1 Treatment Facility
- (5) Aerobic Digesters
- (6) Dewatering and Blower Building
- (7) Effluent Pump Station
- (8) Operating Building
- (9) SAT Basins
- (10) Return Activated Sludge (RAS) Pump Station

See **Figure 3.** Wastewater will be treated through the following process:

- **Preliminary treatment:** screening and grit removal to remove coarse debris prior to further treatment.
- **Secondary treatment with biological nutrient removal:** activated sludge process with anoxic zones, intermediate mixed liquor recycling, and clarification to remove carbon and nitrogen.
- **Tertiary treatment:** filtration to remove suspended solids and turbidity.
- **UV disinfection:** to inactivate bacteria and viruses from the effluent.

Residual solid waste from the proposed liquid treatment processes will be disposed at the Central Maui Landfill.

The effluent from the Central Maui WWRF will comply with the State of Hawai'i, Department of Health (DOH) requirements for R-1 recycled water. The primary method of disposing the treated effluent from the WWRF will be to deliver the recycled water to a recycled water storage facility which is planned to be constructed within the future Waikapū Country Town development, located to the northwest of the proposed WWRF and SAT site. Recycled water will be used for non-potable purposes, including agricultural irrigation. It is noted that the recycled

- KEY NOTES**
1. HEADWORKS (SCREENING, GRIT REMOVAL) AND SEPTAGE RECEIVING STATION
  2. ACTIVATED SLUDGE
  3. SECONDARY CLARIFIER
  4. R1 TREATMENT FACILITY
  5. AEROBIC DIGESTERS
  6. DEWATERING AND BLOWER BUILDING
  7. EFFLUENT PUMP STATION
  8. OPERATIONS BUILDING
  9. SAT BASIN
  10. RAS PUMP STATION

**LEGEND**




Source: Brown and Caldwell, Inc.

Figure 3

Proposed Central Maui Wastewater Reclamation Facility  
Preliminary Site Plan

NOT TO SCALE



Prepared for: County of Maui, Department of Environmental Management

MUNEKIYO HIRAGA

water system and the wastewater system within the future Waikapū Country Town development have been assessed as part of the Final Environmental Impact Statement (EIS) for the Waikapū Country Town published in the January 8, 2017 edition of the Environmental Notice.

While the recycled water storage facility within the future Waikapū Country Town development is the primary method for effluent disposal, Chapter 11-62, Hawai'i Administrative Rules (HAR) and the DOH's Recycled Water Guidelines require a backup effluent disposal system for all water reuse applications. This backup system ensures effluent can be safely disposed when recycled water supply exceeds the demand or if the recycled water fails to meet the required treatment specifications. The backup disposal system must be designed to allow for disposal of 100 percent of the WWRF flow.

The SAT system has been selected as the most viable back-up effluent disposal approach for the Central Maui WWRF. A SAT consists of the intermittent application of effluent at high hydraulic loading rates to basins constructed in highly permeable soils, such as sand or gravel. Treatment in the SAT process is accomplished via biological, chemical, and physical interactions that occur as the water percolates through the soil matrix to groundwater. Treatment benefits can include nitrogen and phosphorus removal, heavy metal and trace organic removal, and removal of endocrine disrupting chemicals.

## **2. Access and Utility Corridor**

A 100-foot wide access and utility corridor (easement) on County-owned lands will also be created as part of the project in order to allow for vehicular access by DEM and contractors between the WWRF site and the future Wai'ale Road Extension. Refer to **Figure 1**.

## **3. Kehalani WWPS and Sewage Pipeline**

The Kehalani WWPS will be designed to divert the existing 18-inch sewage pipeline in Wai'ale Road which currently conveys wastewater from the residential communities of Kehalani, Wailuku Heights, Pu'unani, and Waikapū to the Wailuku-Kahului WWRF. The wastewater pumped by the Kehalani WWPS will be delivered to the Central Maui WWRF via the Kehalani Sewage Pipeline, which will be approximately 17,000 linear feet and be located along the existing and future Wai'ale Road. Refer to **Figure 1**.

## **4. Waikapū Country Town Sewage Pipeline and R-1 Recycled Water Pipeline**

The Waikapū Country Town Sewage Pipeline involves the construction of approximately 3,200 linear feet of sewage pipeline by the County of Maui which

will be located within the planned Wai‘ale Road Extension on County-owned and private lands. This sewage pipeline will allow the planned Waikapū Country Town development to connect to the new WWRF. The connection point to the Waikapū Country Town sewer system will be located east of Honoapi‘ilani Highway on TMK No. (2)3-6-002:003. Refer to **Figure 1**.

The Waikapū Country Town R-1 Recycled Water Pipeline involves the construction of approximately 4,000 linear feet of R-1 recycled water pipeline by the County of Maui. This will be used to deliver R-1 recycled water to a recycled water storage facility which will be constructed within the future Waikapū Country Town development. The R-1 Recycled Water Pipeline will be located within the future Wai‘ale Road Extension and is planned to be constructed by the County of Maui.

As mentioned previously, the wastewater system and recycled water system within the future Waikapū Country Town project have both been assessed as part of the Final EIS for the Waikapū Country Town. The EIS for the Central Maui WWRF Project will assess portions of these components that will be constructed by the County of Maui outside of the Waikapū Country Town project.

The service areas of the proposed Central Maui WWRF are identified in **Figure 4** and summarized in **Table 2**. As shown in **Table 2**, approximately half of the flow (45 percent) is expected to originate from areas that currently contribute flow to the Wailuku-Kahului WWRF. Diversion of the flow from the Wailuku-Kahului WWRF to the Central Maui WWRF will reduce disposal volumes at the Wailuku-Kahului WWRF. The remaining half of the flow (48 percent) is projected to originate from new and future growth areas within the wastewater service areas. The future potential development shown in the table (7 percent) is not defined at this time, but is intended to accommodate potential future growth, which may include the existing Mā‘alaea community if a decision is made to connect to the Central Maui WWRF.

**Table 2.** Anticipated Buildout Wastewater Flow from Developments in Service Area

<b>Wastewater Flow Source</b>	<b>Average Dry Weather Flow (mgd)</b>	<b>Percent of Total Buildout Capacity of 4 mgd</b>
Existing Development (Diverted Flow from Wailuku-Kahului WWRF)	1.78	45%
New Anticipated Development Growth	1.93	48%
Future Potential Development	0.29	7%
<b>Total</b>	<b>4.00</b>	<b>100%</b>

Note: mgd = million gallons per day  
Source: Brown and Caldwell, Inc.

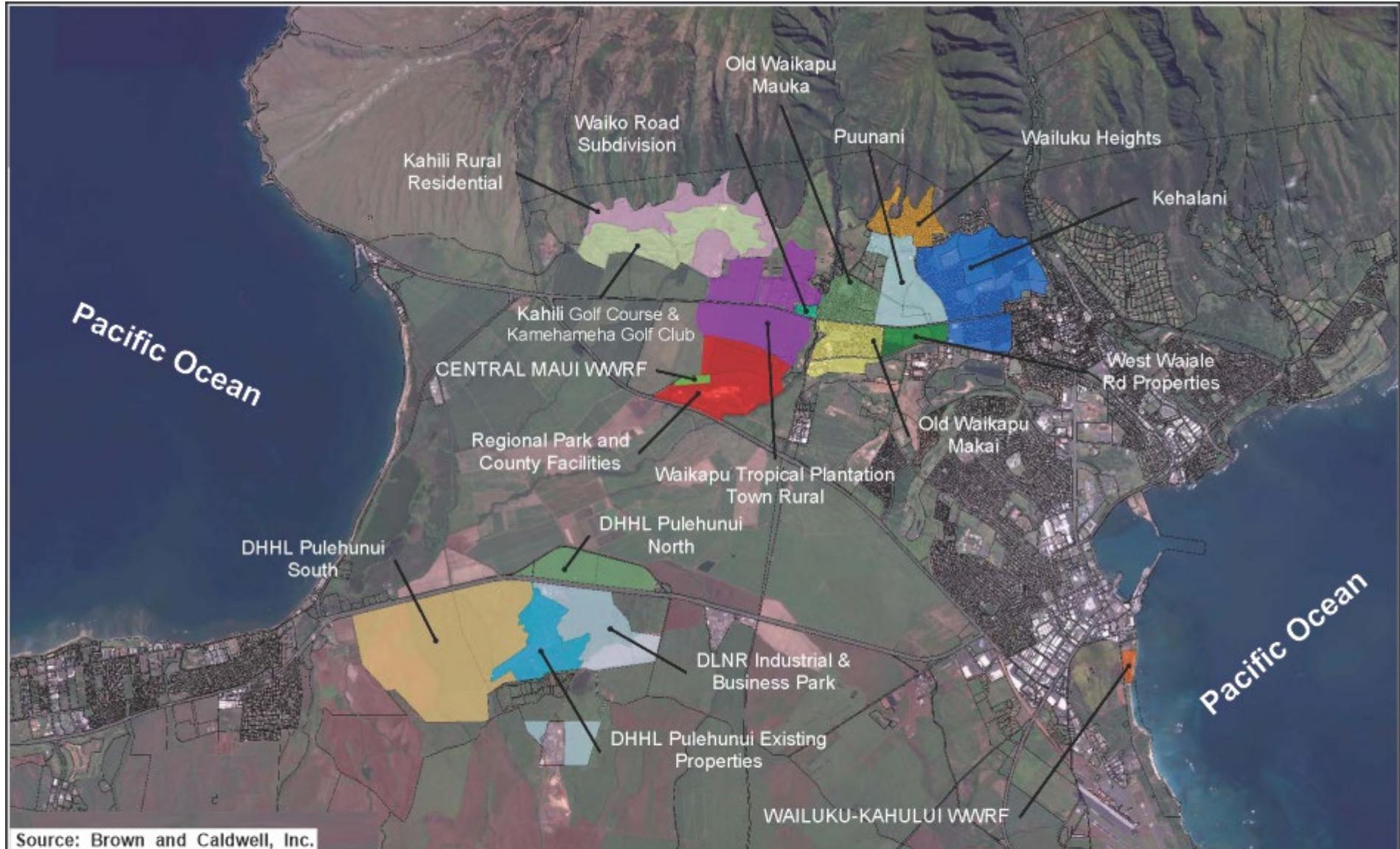


Figure 4

Proposed Central Maui Wastewater  
Reclamation Facility  
Service Area Map

NOT TO SCALE



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## **C. PROJECT NEED**

The Maui County Council approved Resolution No. 06-12 on February 17, 2006, regarding acceptance of the Central Maui Wastewater Reclamation Facility Study (Study) and concurring recommendations and long-term plan. The County identified three (3) primary concerns regarding the future of the existing Wailuku-Kahului WWRF: (1) remaining capacity; (2) shoreline erosion; and (3) potential impacts of tsunami. In order to address these concerns, the County completed a study of the Wailuku-Kahului WWRF to identify and develop a comprehensive list of conceptual treatment and disposal alternatives to meet the future wastewater infrastructure requirements for the Central Maui region. The preparation process included the involvement of a Core Working Group (CWG), comprised of a diverse group of community members to ensure meaningful and broad-based community participation.

Based on the Study and meetings with the CWG, the Department of Public Works and Environmental Management<sup>1</sup> recommended, and the County Council concurred with the following:

- (1) Leave the existing Wailuku-Kahului WWRF at the current site and expand in the future;
- (2) Strengthen the existing Wailuku-Kahului WWRF to withstand a 100-year (20-foot-high) tsunami event;
- (3) Mitigate shoreline erosion through the construction of shoreline erosion structures or beach nourishment; and
- (4) **Implement the long-term plan of action to service the Central Maui Service Area.**

The DEM, WWRD is currently conducting a Wailuku-Kahului WWRF Facility Plan to address recommendation No. 1. The DEM, WWRD carried out the Tsunami Protection Project in 2010 to address recommendation No. 2. The Shoreline Erosion Protection Project was implemented in 2015 to address recommendation No. 3. The proposed Central Maui WWRF project is being proposed to address the recommendation No. 4 and meet wastewater treatment capacity for both existing and future uses in the Central Maui Service Area.

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<sup>1</sup>The Department of Public Works and Environmental Management is now separated into two (2) departments: the Department of Public Works (DPW) and the DEM. The DEM, WWRD is currently responsible for wastewater planning and management.

As identified in **Figure 4**, there are a number of housing projects (including affordable housing) planned in the Central Maui region which are planned to be serviced by the proposed Central Maui WWRF. According to the Hawai'i Housing Planning Study prepared by SMS in 2019, housing needed to eliminate pent-up demand and accommodate new household formation between 2020 and 2025 for Maui County is estimated at 10,404 units across all family income levels. Development of the proposed Central Maui WWRF project will provide additional wastewater capacity to support future housing development needs.

Development of the Central Maui WWRF is anticipated to encourage development of more affordable housing units in Central Maui. Waikapū Country Town, a planned development of nearly 1,500 homes, has agreed to add up to 213 workforce housing units (while removing the same number of market-rate units) under a public-private partnership with the County of Maui, which will allow the project to connect to the Central Maui WWRF, instead of requiring the project to develop its own wastewater facility (Maui News, October 11, 2022).

## D. **ENVIRONMENTAL REVIEW REQUIREMENTS**

### 1. **Chapter 343, Hawai'i Revised Statutes and Chapter 200.1, Hawai'i Administrative Rules**

Due to the development of a new wastewater treatment facility involving a Community Plan Amendment (CPA) and the size of the project area, and the potential for significant environmental impacts, including those that may arise from the potential use of County lands and State/County funds, the County of Maui, DEM has determined through its judgment and expertise that an EIS is likely to be required, and has initiated its environmental review through the preparation of an Environmental Impact Statement Preparation Notice (EISPN). This EISPN has been prepared in accordance with Chapter 343, Hawai'i Revised Statutes and Chapter 200.1 of Title 11, HAR, EIS Rules.

Section 11-200.1-7, HAR states the following related to determining the accepting authority for an EIS for agency actions involving both State and County funds and lands:

#### ***§11-200.1-7 Identification of approving agency and accepting authority.***

*(b) For agency actions involving state and county lands, state and county funds, or both state and county lands and funds, the governor or the governor's authorized representative shall have final authority to accept the EIS. In cases involving only county funds or lands, the mayor of the respective county or the mayor's*

*authorized representative shall have final authority to accept the EIS.*

The governor provided a letter dated June 2, 2023 designating the County of Maui, DEM as the authorized representative for reviewing and processing the EIS for the subject project for acceptability. As such, the DEM is the Accepting Authority for the EIS process. See **Appendix “A”**.

This EISPN provides public notification of the proposed project. One of the purposes of this EISPN is to solicit public comments on the scope of impacts to be addressed in the Draft EIS. Community input on the contents of the Draft EIS will be sought through this EISPN and a public scoping meeting. As per HAR §11-200.1-2, the term “EIS public scoping meeting” is defined as *“a meeting in which agencies, citizen groups, and the general public assist the proposing agency or applicant in determining the range of actions, alternatives, impacts, and proposed mitigation measures to be considered in the draft EIS and the significant issues to be analyzed in depth in the draft EIS.”* The details regarding the public scoping meeting are in Chapter VIII.

The Draft EIS will provide information describing the purpose and need for the project, a more refined and detailed description of the proposed project, an analysis of the potential environmental consequences of the proposed project, and a discussion of alternatives considered. The Draft EIS will disclose significant short-term, long-term, and cumulative impacts on the human, natural, and built environment. The following resource categories have been tentatively identified for consideration in the Draft EIS:

- Existing and Surrounding Land Uses
- Climate
- Topography and Soil Characteristics
- Agriculture
- Groundwater Resources
- Nearshore Water Quality
- Streams and Wetlands
- Flood and Tsunami Hazards
- Sea Level Rise
- Flora and Fauna
- Air Quality
- Greenhouse Gas Emissions
- Noise
- Scenic and Open Space Resources
- Archaeological and Historic Resources
- Cultural Resources
- Chemical and Fertilizer Use
- Regional Setting
- Population, Demography, and Social Impacts

- Economy and Labor Force
- Police and Fire Protection
- Medical Facilities
- Educational Facilities
- Recreational Facilities
- Solid Waste Collection
- Roadways
- Water System
- Wastewater System
- Drainage System
- Electrical, Telephone, and Cable Television Systems
- Cumulative and Secondary Impacts

At this stage, it is anticipated that the following site-specific environmental studies and analyses for the proposed project will be discussed in and appended to the Draft EIS, as appropriate:

- Agricultural Impact Assessment Report
- Air Quality Assessment Report
- Archaeological Inventory Survey and archaeological documentation, as may be required
- Construction Traffic Management Plan
- Cultural Impact Assessment
- Economic and Fiscal Impact Analysis Report
- Flora and Fauna Survey
- Greenhouse Gas Emissions Study
- Hydrogeological Assessment
- Noise Impact Assessment Report
- Preliminary Engineering and Drainage Report
- Traffic Impact Analysis Report
- View Analysis

Once prepared, the Draft EIS document will be reviewed by the DEM, published in the Office of Planning and Sustainable Development, Environmental Review Program's (ERP) The Environmental Notice bulletin and made available for a 45-day public review and comment period. Following this review process, the Applicant will prepare a Final EIS document responding to comments received on the Draft EIS.

## **2. National Environmental Policy Act**

The use of federal funds may be pursued for the proposed project. In such event that said funds are secured and utilized by the County of Maui, the DEM will work with the relevant federal agency to comply with the applicable provisions of the National Environmental Policy Act (NEPA) and any related consultation requirements, including, but not limited to Section 106 Consultation in compliance

with the National Historic Preservation Act (NHPA) and Section 7 Consultation in compliance with the Endangered Species Act (ESA).

## **E. LAND USE ENTITLEMENTS REQUIREMENTS**

The 14.9-acre project site for the Central Maui WWRF and onsite SAT is located on lands designated a “Agricultural” by the State LUC, designated for “Agriculture” use in the Wailuku-Kahului Community Plan, and zoned “Agricultural” district by the County of Maui. It is noted that the sewage pipelines and R-1 recycled water pipeline alignments (except for the existing Wai’ale Road) are also located within the State “Agricultural” district, and zoned “Agricultural” district by the County of Maui. The Kehalani WWPS is proposed to be located on a parcel within the State “Urban” district, designated for “Kehalani Project District - Open Space” use in the Wailuku-Kahului Community Plan, and zoned “Project District (Open Space)” by the County of Maui.

### **1. State Land Use Commission District Boundary Amendment**

The 14.9-acre site for the WWRF and SAT is designated “Agricultural” by the State LUC. In order to address the proposed public/quasi-public land use objective of the project, a District Boundary Amendment (DBA) from the “Agricultural” district to the “Urban” district will be required. Pursuant to Section 205-3.1 (b), HRS, a DBA involving land areas of 15 acres or less shall be determined by the appropriate county land use decision-making authority. For the County of Maui, the Maui County Council is the decision-making authority for DBAs. Inasmuch as the proposed WWRF and SAT site is less than 15 acres, the County of Maui, Department of Environmental Management (DEM) will seek a DBA from the Council. By letter dated February 10, 2023, the Department of Planning confirmed that the uses and areas of the proposed Central Maui WWRF and SAT site would qualify for DBA processing under the approval authority of the Council. The DBA application will be initiated by the Planning Director. See **Appendix “B”**.

### **2. County Community Plan Amendment**

The 14.9-acre WWRF and SAT site is designated for “Agricultural” use in the Wailuku-Kahului Community Plan. To establish the proposed public/quasi-public use, an amendment to the Wailuku-Kahului Community Plan from “Agriculture” to “Public/Quasi-Public” use will also be required. The CPA application will be initiated by the Planning Director.

### **3. County Change of Zoning**

The 14.9-acre WWRF and SAT site is zoned “Agricultural” District by the County of Maui. A Change of Zoning (COZ) to “Public/Quasi-Public (P-1)” District will be required. The COZ application will be initiated by the Planning Director.

The EIS will serve as the primary supporting documents for the DBA, COZ, and CPA processes. As mentioned above, the sewage pipelines and R-1 recycled water pipeline alignments (not within the existing Wai'ale Road), and the WWRF access road are also located within the State "Agricultural" district, designated "Agriculture" by the Wailuku-Kahului Community Plan, and the County's "Agricultural" zoning district. However, said uses are permitted uses within these land use designations, and, as such, DBA, COZ, and CPA will not be required for these project components.

#### **4. County Kehalani Project District Permitting Requirements**

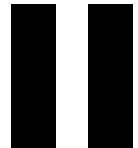
The Kehalani WWPS is proposed to be located on a parcel within the State "Urban" district, designated for "Kehalani Project District" and "Open Space" use in the Wailuku-Kahului Community Plan, and zoned "Project District" and "Open Space" by the County of Maui. Project District processing requirements will be complied with for this pump station in coordination with the Department of Planning.

### **F. PROJECT COST AND IMPLEMENTATION SCHEDULE**

The proposed project will be developed over a multi-phased time horizon. A project phasing plan and estimated project construction cost will be presented in the Draft EIS.



# **DESCRIPTION OF THE EXISTING ENVIRONMENT AND SCOPING OF POTENTIAL IMPACTS**



## **II. DESCRIPTION OF THE EXISTING ENVIRONMENT AND SCOPING OF POTENTIAL IMPACTS**

### **A. PHYSICAL SETTING**

#### **1. Existing and Surrounding Land Uses**

From a regional perspective, the proposed project is located in Central Maui with Kahului Harbor to the north, Mā'alaea Bay to the south, the West Maui Mountains to the west, and Haleakalā to the east.

The proposed project will be located on vacant, former agricultural lands in the vicinity of Waikapū, an existing roadway, and an existing stormwater basin owned by the County of Maui. The immediate surrounding area contains a variety of uses including an adjacent County baseyard, and mostly vacant, former agricultural lands which were most recently used for the cultivation of sugar cane. Residential and light industrial/commercial uses are located further to the north in the community of Waikapū.

The proposed action involves the development of a Wastewater Reclamation Facility (WWRF), onsite Soil Aquifer Treatment (SAT) system, a wastewater pump station (WWPS), sewage pipelines, a R-1 recycled water pipeline, and an access road, which will be designed to be compatible with surrounding land uses.

#### **2. Climate**

Maui is characterized by a semi-tropical climate containing a multitude of individual microclimates. The mean annual temperature of the island at all locations near sea level is approximately 75 degrees Fahrenheit. A high proportion of the rainfall that Maui receives each year falls on the northeast facing shores leaving the south and southwest coastal areas relatively dry.

The proposed WWRF and SAT site as well as the Waikapū Country Town Sewage Pipeline and R-1 Recycled Water Pipeline are located in the vicinity of Waikapū in Central Maui, and the proposed Kehalani Sewage Pipeline and WWPS span north towards Wailuku. Annual temperatures in the region average in the mid 70's. July through September are historically the warmer months of the year, while the cooler months are January through March. During the summer months, average daily temperatures in Central Maui typically range from the low 70's to the high 70's (County of Maui, Office of Economic Development, 2020).

Average rainfall distribution in the Waikapū region had an average of 15 inches of rain in 2020. Rainfall in the region is highly seasonal, with most of the precipitation occurring in the winter months (County of Maui, Office of Economic Development, 2020).

Northeast tradewinds prevail approximately 80 to 85 percent of the time. Tradewinds originating from the northeast average 10 to 15 miles per hour during afternoons, with slightly lighter winds during mornings and nights. Between October and April, the southerly winds of Kona storms may be experienced (County of Maui, Office of Economic Development, 2019).

### **3. Topography and Soil Characteristics**

The project area is located in Central Maui, which is the isthmus connecting the West Maui Mountains to Haleakalā.

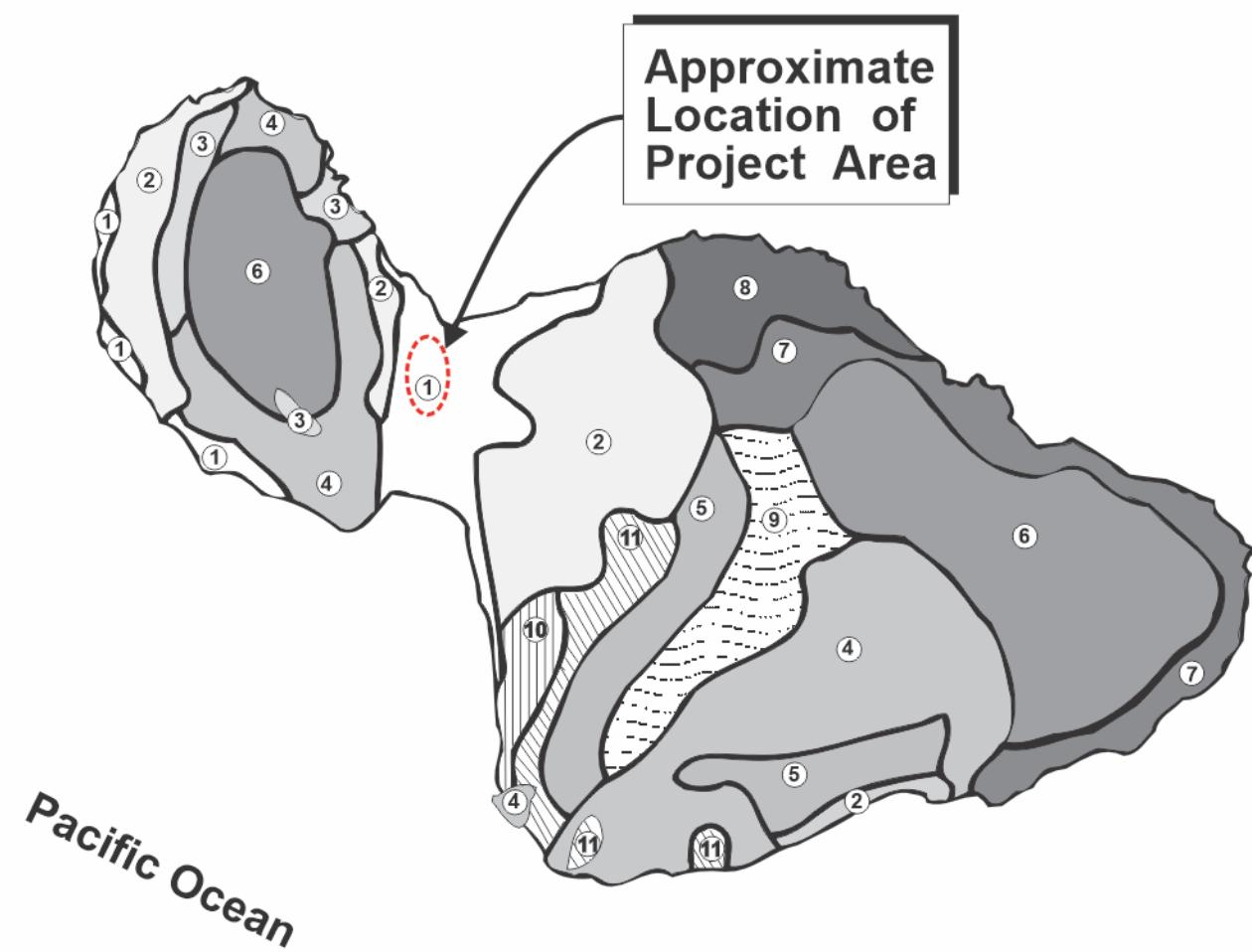
Underlying the project area is the Pulehu-Ewa-Jaucus soil association. See **Figure 5**. The Soil Survey of the Islands of Kaua'i, O'ahu, Maui, Moloka'i, and Lāna'i, State of Hawai'i, characterizes the soils of the Pulehu-Ewa-Jaucus soil association as deep, nearly level to moderately sloping. The underlying material is moderately fine textured to coarse-textured subsoil and range in elevation from nearly sea level to approximately 600 feet above mean sea level (amsl).

A description of the specific soil types underlying the project area is presented in **Figure 6** and **Table 3**.

Grading design work for the project will respect existing topography to the extent practicable in order to minimize extensive cut and fill activity. Although landform transformations in terms of cut and fill will be required for project implementation, significant areas of the affected parcels will be left ungraded. All grading work will comply with applicable requirements of Chapter 20.08, Soil Erosion and Sedimentation of the Maui County Code (MCC). A Preliminary Engineering and Drainage Report (PEDR) will be prepared for the project by a licensed civil engineer, which will be included in the Draft Environmental Impact Statement (EIS) and present additional information on the grading concept as well as necessary drainage improvements.

## LEGEND

- |  |  |
|--|--|
| (1) Pulehu-Ewa-Jaucas association                | (7) Hana-Makaalae-Kailua association     |
| (2) Waiakoa-Keahua-Molokai association           | (8) Pauwela-Haiku association            |
| (3) Honolua-Olelo association                    | (9) Laumaia-Kaipoipoi-Olinda association |
| (4) Rock land-Rough mountainous land association | (10) Keawakapu-Makena association        |
| (5) Puu Pa-Kula-Pane association                 | (11) Kamaole-Oanapuka association        |
| (6) Hydrandepts-Tropaquods association           |  |



Map Source: U.S. Department of Agriculture, Soil Conservation Service, 1972

**Figure 5 Proposed Central Maui Wastewater Reclamation Facility  
Soil Association Map**

NOT TO SCALE



Prepared for: County of Maui, Department of Environmental Management

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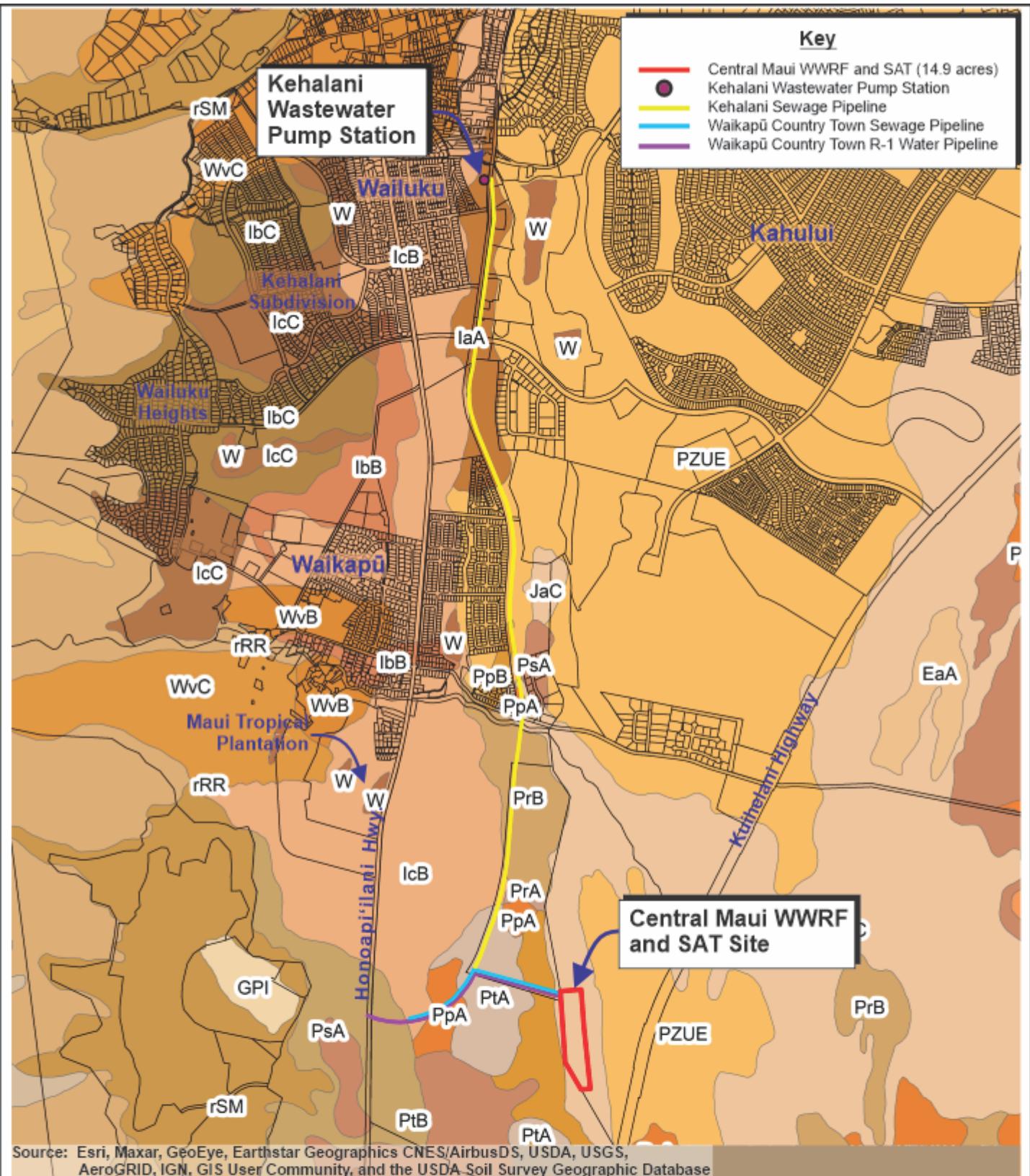


Figure 6 Proposed Central Maui Wastewater Reclamation Facility Soil Classification Map



Prepared for: County of Maui, Department of Environmental Management



**Table 3.** Soil Types Underlying Project Area

Soil Symbol	Soil Name	Description	WWRF and SAT Site	Kehalani WWPS	Kehalani Sewage Pipeline	Waikapū Country Town Sewage Pipeline	Waikapū Country Town R-1 Recycled Water Pipeline
IaA	Iao silty clay, 0 to 3 percent slopes	IaA is a well-drained soil found on valley fill and alluvial lands. Runoff is slow and the erosion hazard is no more than slight.		X	X		
IcB	Iao silty clay, 3 to 7 percent slopes	IcB soil is similar to IaA soil and is found in valley fill and on smooth alluvial lands.			X	X	X
JaC	Jaucus sand, 0 to 15 percent slopes	JaC soil occurs as narrow strips on coastal plains near the ocean and is characterized by rapid permeability and very slow to slow runoff. JaC soil has a slight water erosion hazard with a severe wind erosion hazard where vegetation has been removed.	X		X	X	X
PtA	Pulehu cobbly clay loam, 0 to 3 percent slopes	PtA soils occur on alluvial fans, stream terraces, and in basins. Permeability is moderate, runoff is slow and the erosion hazard is slight.			X	X	X
PtB	Pulehu cobbly clay loam, 2 to 6 percent slopes	PtB is found in small areas that have thin, stratified layers of sand and gravel at a depth of 20 to 36 inches. Runoff is slow and the erosion hazard is slight.					X
PpA	Pulehu silt loam, 0 to 3 percent slopes	PpA is made up of silt loam and has been used for sugarcane cultivation period. It is characterized by moderate permeability, slow runoff and a no more than slight erosion hazard.			X	X	X
PpB	Pulehu silt loam, 3 to 7 percent slopes	PpB soil is characterized by a silt loam texture and a slight erosion hazard. Also included are small areas underlain by coral sand at a depth of 20 to 36 inches.			X	X	X

<b>Soil Symbol</b>	<b>Soil Name</b>	<b>Description</b>	<b>WWRF and SAT Site</b>	<b>Kehalani WWPS</b>	<b>Kehalani Sewage Pipeline</b>	<b>Waikapū Country Town Sewage Pipeline</b>	<b>Waikapū Country Town R-1 Recycled Water Pipeline</b>
PrB	Pulehu cobbly silt loam, 3 to 7 percent slopes	PrB soil has a silt loam texture, and the surface layer is cobbly. Runoff is slow, and the erosion hazard is slight.			X		
PZUE	Puuone sand, 7 to 30 percent slopes	PZUE soil occurs on sandhills near the ocean and is derived from coral and seashells. This soil has rapid permeability above a cemented layer with slow runoff and a moderate to severe wind erosion hazard.			X		

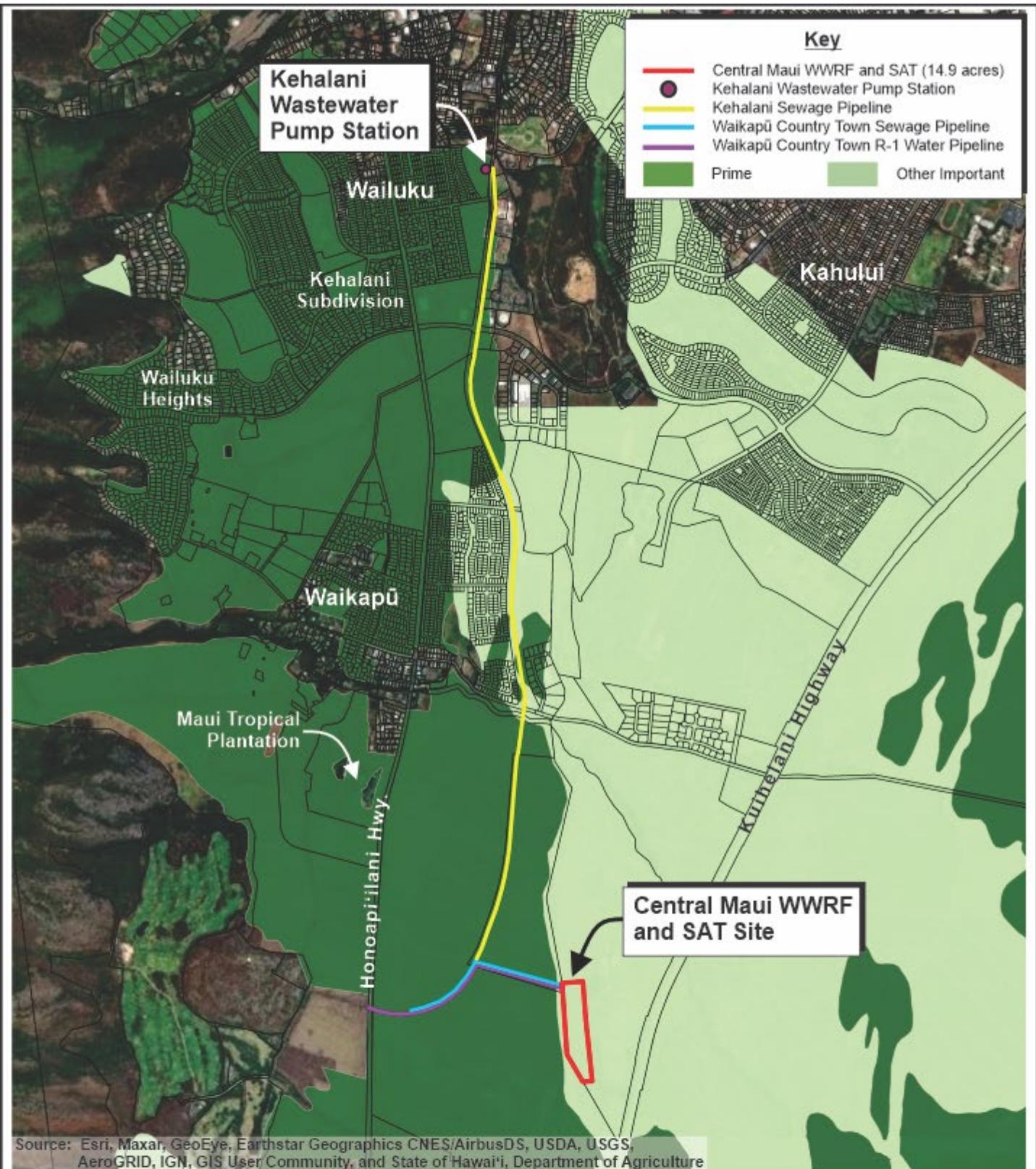
#### **4. Agriculture**

On the Island of Maui, approximately 235,770 acres have been designated as “Agricultural” by the State Land Use Commission (LUC), representing just over 50 percent of the island. The approximately 14.9-acre Central Maui WWRF and SAT site, access road, sewage pipelines and R-1 recycled water pipeline alignments (except for the existing Wai’ale Road) are all located within the State Agricultural District.

In 1977, the State Department of Agriculture developed a classification system to identify Agricultural Lands of Importance to the State of Hawai‘i (ALISH). The classification system is based primarily, though not exclusively, upon the soil characteristics of the lands. The three (3) classes of ALISH lands are: “Prime”, “Unique”, and “Other Important” agricultural land, with all remaining lands termed “Unclassified”.

When utilized with modern farming methods, “Prime” agricultural lands have a soil quality, growing season, and moisture supply necessary to produce sustained crop yields economically. “Unique” agricultural lands possess a combination of soil quality, growing season, and moisture supply to produce sustained high yields of a specific crop. “Other Important” agricultural lands include those that have not been rated as “Prime” or “Unique” but are of state-wide or local importance for agricultural use. Approximately 62,000 acres, or 26 percent, of Maui’s 235,770 acres of State LUC designated “Agricultural” lands are characterized as “Prime” lands by the ALISH system. The project site for the WWRF and SAT is classified as “Other Important” by ALISH. The proposed sewage pipelines and R-1 recycled water pipeline traverse through lands rated “Prime”, and “Other Important” by ALISH, however, these portions of the project area are either existing or future roadways, or easements that are not suitable for agricultural production. The Kehalani WWPS is proposed to be located on land rated “Prime” by ALISH, however the land is utilized as an existing stormwater detention basin that serves the master-planned Kehalani community. See **Figure 7**.

The University of Hawai‘i, Land Study Bureau (LSB) developed the Overall Productivity Rating, which classified soils according to five (5) levels, with “A” representing the class of highest productivity soils and “E” representing the lowest. These letters are followed by numbers which further classify the soil types by conveying information such as texture, drainage, and stoniness. The ratings are based on soil properties, topography, climate, and other factors. On the island of



**Figure 7 Proposed Central Maui Wastewater Reclamation Facility Agricultural Lands of Importance in the State of Hawai'i**



Prepared for: County of Maui, Department of Environmental Management

 MUNEKIYO HIRAGA

Maui, LSB “A” and “B” designated lands comprise approximately 21 percent of the island’s State LUC “Agricultural” lands. A portion of the Kehalani Sewage Pipeline (within the existing Wai’ale Road) and the Kehalani WWPS are not within the State Agricultural District and, therefore, not classified by the LSB. The WWRF and SAT project site is rated “E”, the lowest productivity level. The rest of the project area traverses through land containing soil ratings “A”, “B”, and “E”. However, as noted previously, these portions of the project area are either existing or future roadways or easements that are not suitable for agricultural production. See **Figure 8**.

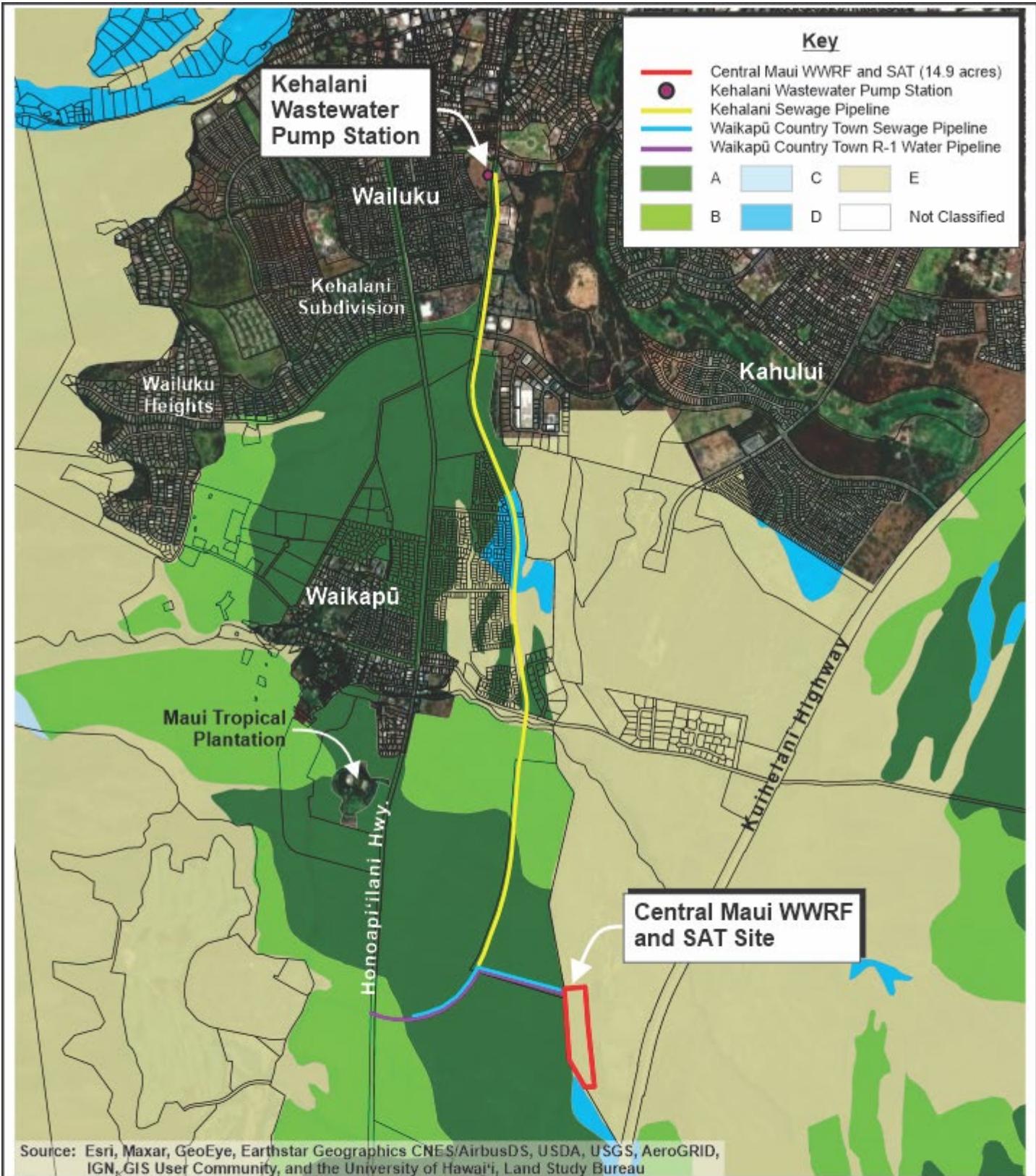
Chapter 205, Hawai‘i Revised Statutes (HRS) declared that the people of Hawai‘i have a substantial interest in conserving the agricultural resources of the State. The State calls for the identification of Important Agricultural Lands (IAL) to identify and plan for the maintenance of a strategic agricultural land resource base that can support a diversity of agricultural activities and opportunities that expand agricultural income. The proposed project is located outside of IAL. See **Figure 9**.

With the exception of the existing Wai’ale Road and the County of Maui’s stormwater detention basin for the master-planned Kehalani community, the project area is currently vacant. An Agricultural Impact Assessment Report will be prepared as part of the environmental review process to assess the potential impact of the proposed project on the availability of productive agricultural lands on Maui. A copy of the Agricultural Impact Assessment Report will be included and discussed in the Draft EIS.

## **5. Groundwater Resources**

Groundwater resources have the potential to be affected by uses that occur on land, including wastewater treatment and disposal facilities. In addition, because much of Hawai‘i’s aquifers depend on recharge from rain events, the development of non-porous surfaces may have an effect on the availability and quality of groundwater resources in the area.

A Hydrogeological Assessment Report will be prepared to evaluate potential effects on groundwater in the area resulting from implementation of the proposed SAT system. A copy of this report will be included and discussed in the Draft EIS.

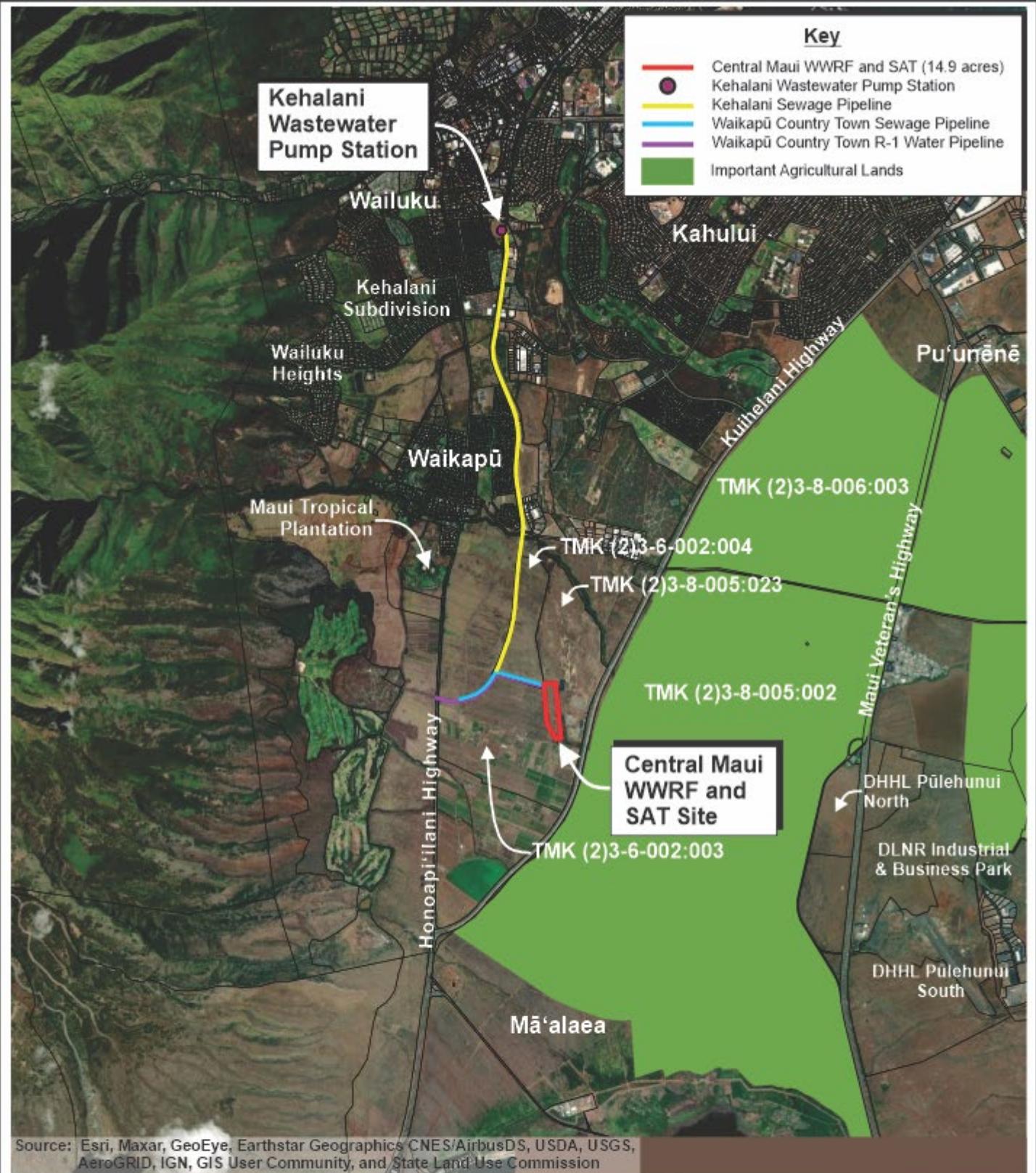


**Figure 8 Proposed Central Maui Wastewater Reclamation Facility Land Study Bureau Map**



Prepared for: County of Maui, Department of Environmental Management

 MUNEKIYO HIRAGA



**Figure 9 Proposed Central Maui Wastewater Reclamation Facility  
Important Agricultural Lands**



Prepared for: County of Maui, Department of Environmental Management

0 2250 4500  
1125 Feet

## **6. Nearshore Water Quality and Marine Environment**

The project area is situated in the central valley of Maui a substantial distance from coastal areas. Kahului Harbor is located approximately 4 miles to the north and Mā'alaea Bay approximately 2.5 miles to the south. Nearshore water quality and the marine environment have potential to be affected by the proposed uses, particularly the onsite SAT system, because groundwater will ultimately flow into the ocean. In addition, runoff from the project area also has potential to impact nearshore water quality and marine environment.

A Hydrogeological Assessment Report for the project will be prepared to evaluate the SAT system's potential effects on groundwater that ultimately flows to the nearshore marine environment. A PEDR will also be prepared for the project to evaluate drainage conditions and propose a conceptual drainage plan. These reports will be included and discussed in the Draft EIS.

## **7. Streams and Wetlands**

The Waikapū Stream and another unnamed gulch/stream intersect with the proposed alignments for the pipelines for this project. Coordination will be undertaken with the Department of the Army (DA), U.S. Army Corps of Engineers (USACE) to determine the applicability of DA permit requirements for proposed channel crossings. The proposed project does not involve any work within wetlands. See **Figure 10**.

In addition, and as available, information regarding consultation with the USACE will also be included in the Draft EIS.

## **8. Flood and Tsunami Hazards**

The Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) indicates that the majority of the project area is located within Flood Zone X (unshaded), an area of minimal flooding located outside the 0.2 percent annual chance floodplain. The proposed Kehalani Sewage Pipeline will cross small areas (Waikapū Stream) designated as Zone AE. Zone AE includes areas subject to inundation by the 1-percent-annual-chance flood event. See **Figure 11**.

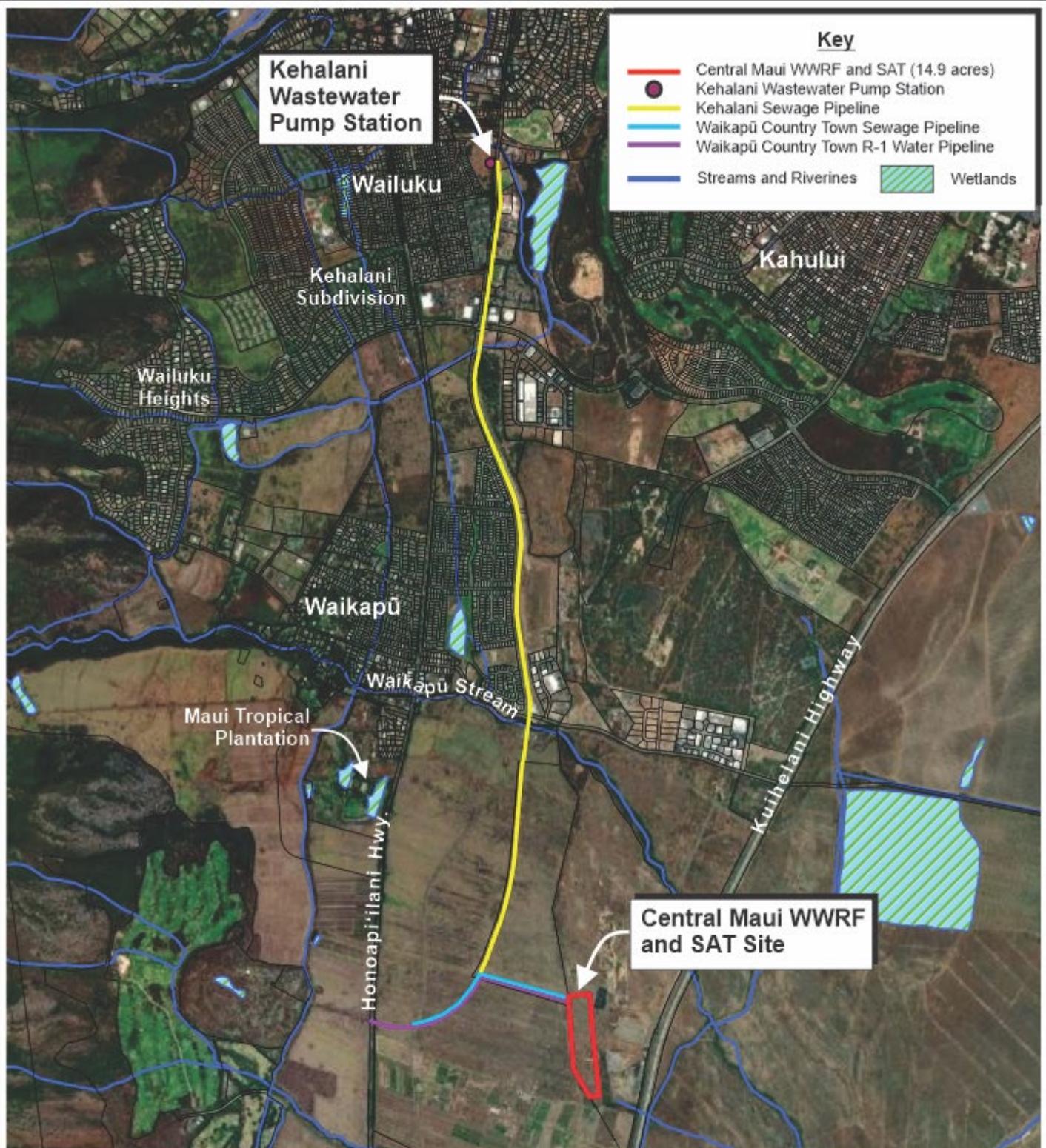


Figure 10 Proposed Central Maui Wastewater Reclamation Facility Streams and Wetlands



0 1250 2500  
Feet

Prepared for: County of Maui, Department of Environmental Management

MUNEKIYO HIRAGA

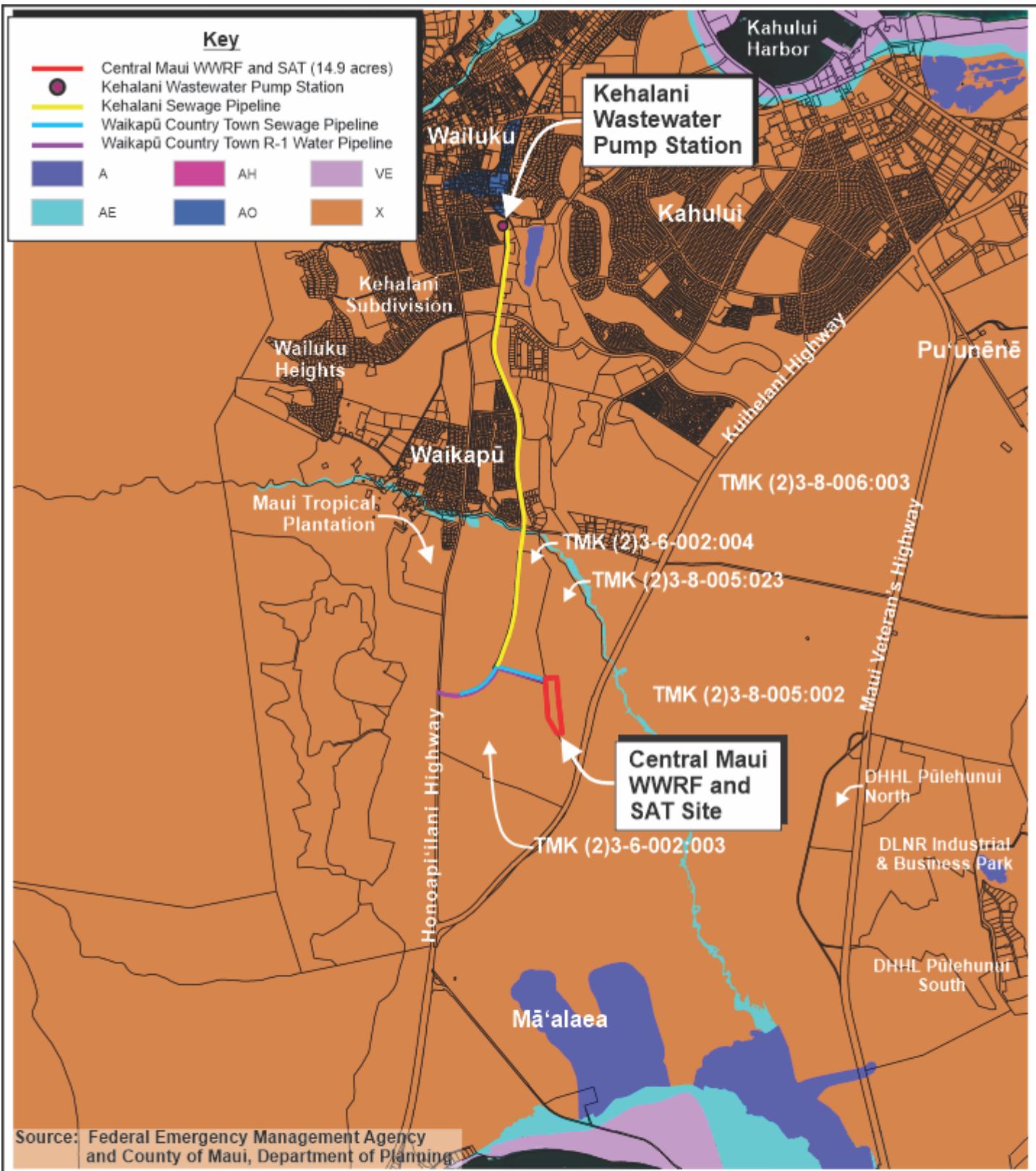


Figure 11 Proposed Central Maui Wastewater Reclamation Facility Flood Insurance Rate Map



0 2250 Feet  
1125 4500

Prepared for: County of Maui, Department of Environmental Management

MUNEKIYO HIRAGA

The updated County of Maui's Tsunami Evacuation Maps designate three (3) areas: 1) the Safe Zone, illustrated in green on the maps, identifies the area to which people should evacuate in the event of a tsunami; 2) the Extreme Tsunami Evacuation Zone, shown in yellow, designates areas which should be evacuated during an Extreme Tsunami Warning; and 3) the Tsunami Evacuation Zone, shown in orange, identifies areas which should be evacuated in the event of any type of Tsunami Warning. During a Tsunami Warning, destructive waves may inundate all coastlines, while during an Extreme Tsunami Warning waves may move more significantly inland. The Tsunami Evacuation Zone Map shows the project area as being within the Safe Zone. See **Figure 12**.

**9. Sea Level Rise**

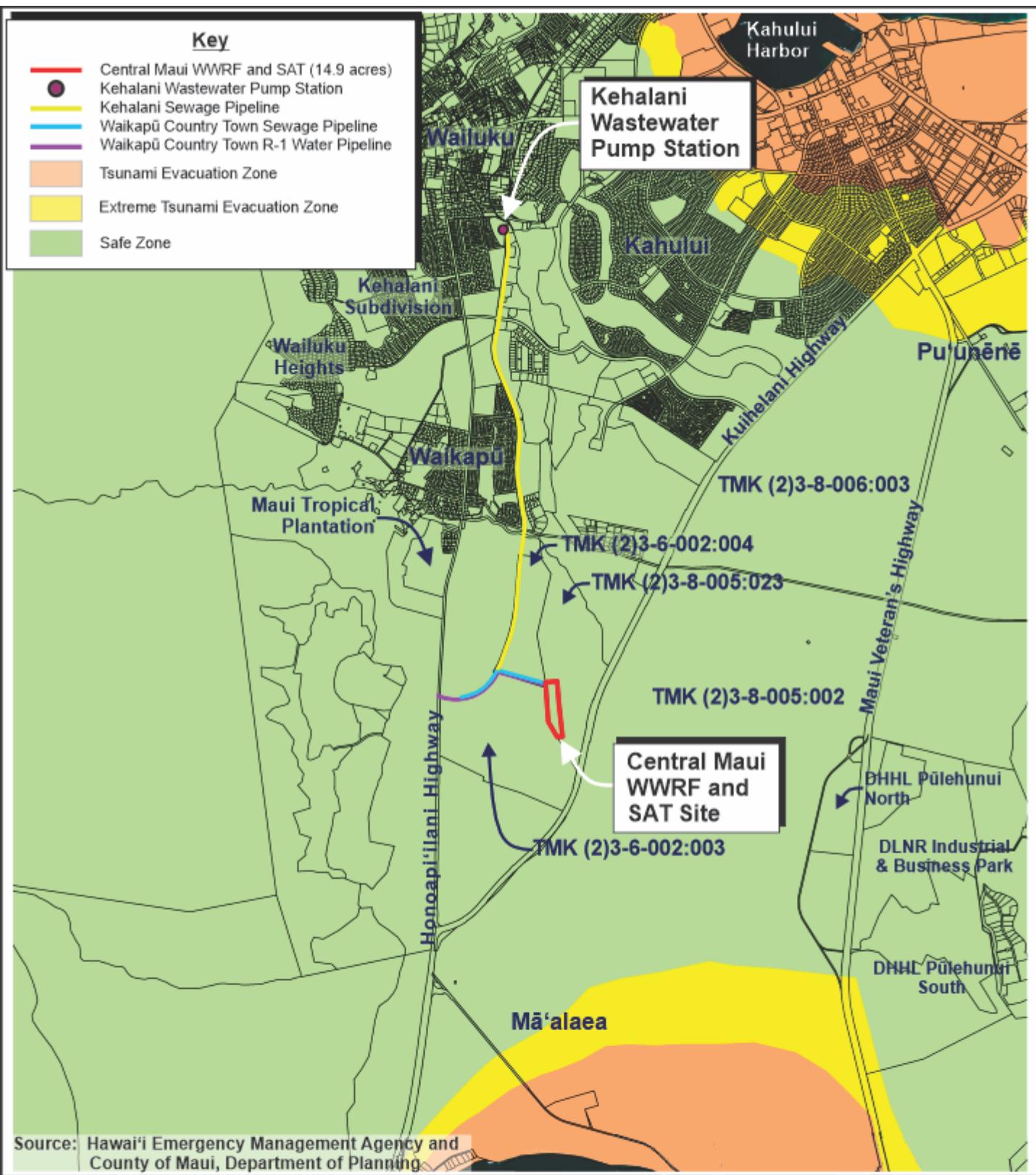
Due to Hawai'i's location in the Pacific, it is often faced with risks due to extreme weather events. Changing climatic patterns caused by global warming result in impacts, including rising sea levels, storm surge, increased flood potential, and beach erosion for oceanfront and shoreline parcels. To evaluate potential risks due to sea level rise, several resources that are available for planning for sea level rise in Hawai'i were consulted. These include the Hawai'i Sea Level Rise Vulnerability and Adaptation Report that was prepared in 2017 by the Hawai'i Climate Change Mitigation and Adaptation Commission that projects a 3.2-foot rise in sea level for the Hawaiian Islands by the mid-to-latter half of the 21st century. It is noted that the project area is located inland and entirely outside of the projected 3.2-foot sea level rise exposure area. See **Figure 13**.

**10. Flora and Fauna**

The project area is mainly characterized as either former agricultural lands, the existing Wai'ale Road, or the existing stormwater detention basin owned by the County of Maui. A site specific Flora and Fauna Survey will be carried out as part of the environmental review process for the project. A copy of the Flora and Fauna Survey will be included and discussed in the Draft EIS.

**11. Air Quality**

The area in general does not experience adverse air quality conditions. Notable point sources of air contaminants in the local area can be attributed to vehicle exhaust, as well as periodic events such as Hawai'i Island volcanic eruptions and Central Maui range fires. The above-noted sources are relatively intermittent, however, and the prevailing tradewinds disperse suspended particulates to maintain a relatively high level of air quality in and around the project area.



**Figure 12 Proposed Central Maui Wastewater Reclamation Facility Tsunami Evacuation Zone Map**



0 2250  
1125 4500  
Feet

Prepared for: County of Maui, Department of Environmental Management

 MUNEKIYO HIRAGA

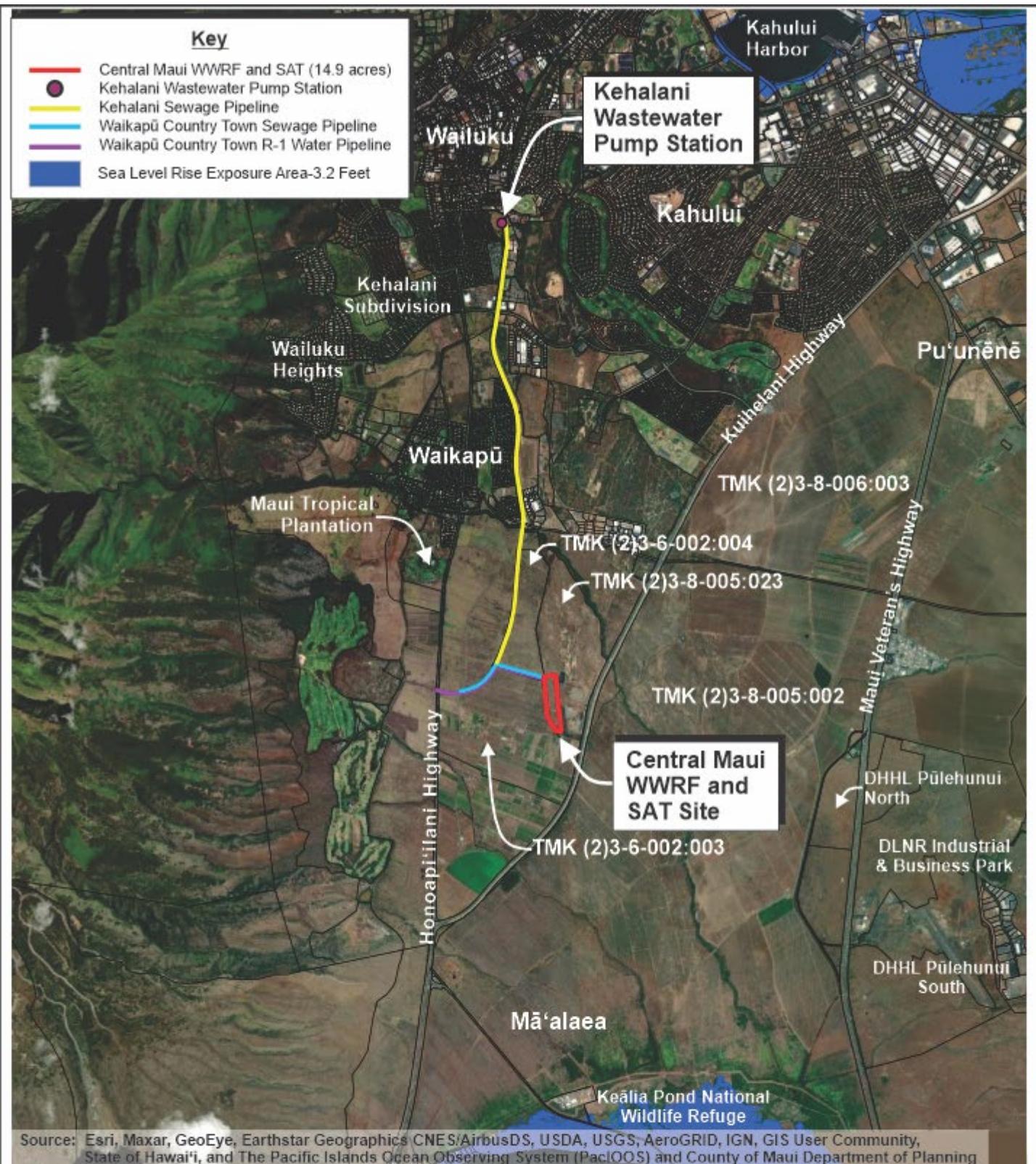


Figure 13 Proposed Central Maui Wastewater Reclamation Facility  
3.2-Foot Sea Level Rise Exposure Map

Prepared for: County of Maui, Department of Environmental Management



Implementation of the project would result in impacts from dust generated by short-term construction-related activities. Site work, such as clearing, grubbing, grading, and utilities/roadway improvements, for example, will generate wind-blown particulates. A comprehensive Best Management Practices (BMP) plan will be developed and implemented for the construction phase of the project. Examples of mitigation measures that may be included in the BMP program include the use of dust control measures, such as regular watering and sprinkling, installation of dust screens, and timely revegetation of graded areas.

An Air Quality Assessment Report will be prepared as part of the environmental review process, a copy which will be included and discussed in the Draft EIS.

## **12. Greenhouse Gas Emissions**

Within the State of Hawai'i, the energy sector (including fossil fuel burning to produce electricity, transportation, waste incineration, and natural gas systems) is identified as the source of approximately 89 percent of greenhouse gas (GHG) emissions. Other sources of GHG emissions include industrial facilities, agriculture and forestry, and waste treatment such as landfills, composting, and wastewater treatment (State of Hawai'i, Department of Health, 2021).

On Maui, the facilities operating at or above the 25,000 metric ton level include Hawaiian Electric Company's Kahului Power Plant, Mā'alaea Power Plant, the Hawaiian Commercial Sugar Company Industrial Waste Landfill, and the Central Maui Landfill (United States Environmental Protection Agency, 2020).

A GHG Emissions Study will be prepared as part of the environmental review process for the project, which will also include a discussion relating to GHG emissions. A copy of this report will be included and discussed in the Draft EIS.

## **13. Noise**

Existing background noise in the vicinity of the project area is principally attributed to vehicular traffic traversing through the area, and wind circulation.

Ambient noise conditions will be temporarily impacted by construction activities. Heavy construction equipment and construction activities would be the dominant source of noise during construction. Equipment mufflers or other noise attenuating equipment, as well as proper equipment maintenance, will be used during construction activities in order to mitigate potential impacts to ambient noise conditions in the vicinity. Also, construction activities are anticipated to be limited to daylight working hours. Contractors will be required to avoid sensitive areas and comply with the maximum allowable noise levels for stationary equipment established by Hawai'i Administrative Rules (HAR), Chapter 11-46, "Community

Noise Control". Should a community noise permit be required, said permit will be obtained prior to the commencement of construction.

A Noise Study will be prepared as part of the environmental review process, a copy of which will be included and discussed in the Draft EIS.

**14. Scenic and Open Space Resources**

The majority of the project area is situated within the vicinity of Waikapū, and the proposed Kehalani Sewage Pipeline and Kehalani WWPS span north towards Wailuku. Vacant, undeveloped lands surround the project area with the West Maui Mountains visible to the west and Haleakalā visible to the east.

The proposed project will be designed with careful consideration given to the placement of buildings during design process to arrive at a plan that will be both sensitive and place appropriate to the surrounding area. A view analysis, providing "before" and "after" perspectives of the proposed WWRF structures and Kehalani WWPS from various public vantage points will be prepared and included in the Draft EIS.

**15. Archaeological and Historic Resources**

Archaeological documentation will be prepared for the project area and coordination undertaken with the State Historic Preservation Division (SHPD) as part of the environmental review process. This documentation and consultation with SHPD will be reported in the Draft EIS to document the manner in which archaeological resources may be impacted and how such impacts will be mitigated.

**16. Cultural Resources**

In terms of traditional Hawaiian perspectives of the island, the project area is situated within the moku (traditional land district) of Wailuku. Each Moku is further subdivided into land divisions called ahupua'a. The moku of Wailuku is divided into four (4) ahupua'a which include Waihe'e, Waiehu, Wailuku, and Waikapū. Collectively, these four (4) ahupua'a were known as "Nā Wai 'Ehā", or "the four waters", which refers to the valleys and streams in each of these ahupua'a.

Following Western settlement in the islands, land uses on Maui underwent a transition away from subsistence cultivation and communal land use. The Great Māhele of 1848 precipitated the acquisition of substantial tracts of land by mainland businessmen for the establishment of plantations and ranches. As the sugar industry developed in the mid-1800s, sugar cane took over the traditional taro lands. Land use in the project area in the mid-19th and early 20th century was

largely devoted to the sugar industry. During the 1860s, the sugar business grew, with plantations and mills operating at Wailuku, Waihe'e, Waikapū, and Ha'ikū (Scientific Consultant Services, Inc., 2020).

A Cultural Impact Assessment (CIA) study for the project area will be prepared as part of the environmental review process. A copy of the CIA report will be included and its findings will be discussed in the Draft EIS.

#### **17. Use of Chemicals and Fertilizers**

The project area consists of an existing roadway, an existing stormwater detention basin, and former agricultural lands. Agricultural production has ceased in the project area and the land has been mainly vacant. There may be limited potential for hazardous materials to be present within surrounding uses such as motor oil or fertilizers.

A drainage system will be implemented as part of the proposed project to retain stormwater increases due to increased amount of impermeable surface areas and prevent impacts to downstream properties. As mentioned previously, a PEDR will be prepared for the proposed project, which will include a drainage assessment of the WWRF and SAT project site. A more detailed discussion of the project's drainage system in relation to this resource parameter will be included in the Draft EIS.

### **B. SOCIO-ECONOMIC ENVIRONMENT**

#### **1. Regional Setting**

From a regional standpoint, the project is located within the Wailuku-Kahului Community Plan area. The Wailuku-Kahului Community Plan region stretches from Poelua Bay on the northwestern shore of Kahakuloa to Baldwin Park in Pā'ia and extends south to Waikapū. The region is the population center of Maui and encompasses the island's commerce and industrial center, hosting the Kahului Harbor, the Kahului Airport, various government agencies, professional services, retail shopping centers and residential communities.

The proposed project will be designed to be low profile and will be compatible with the surrounding agricultural lands and residential neighborhoods near Waikapū, Kehalani, and Wailuku. The proposed sewage pipelines and R-1 recycled water pipeline will be located underground.

## **2. Population, Demography, and Social Impacts**

The County of Maui's population in 2010 was 154,834 residents, including 144,444 people who lived on the island of Maui. According to the 2020 Census, the County's population grew to 164,836 residents, an increase of 6.4 percent since 2010 (U.S. Census Bureau, 2020). Maui County's population is expected to grow to 207,310 people by 2030 (State of Hawai'i, Department of Business, Economic Development, and Tourism, 2012). As previously mentioned, the proposed project is located in Central Maui, within the Wailuku-Kahului Community Plan region. The population of the Wailuku-Kahului region accounts for approximately 33 percent of Maui island's population (U.S. Census Bureau, 2020).

Further discussion of the proposed project in the context of population, demography, and social parameters will be provided in the Draft IES.

## **3. Economy and Labor Force**

The economy of Maui is heavily dependent upon the visitor industry and, in turn, this industry fosters the retail and service industries. Hotel and resort amenities are primarily located in South and West Maui, with smaller, non-resort hotels in Central Maui. The Wailuku-Kahului region is the business and commercial center of the island and is anchored by government and professional services, commercial, retail and industrial uses.

Hawai'i's economy through 2019 was strong, with record-setting visitor arrivals and low unemployment. However, the COVID-19 pandemic greatly impacted the economy on Maui, in Hawai'i, and across the nation and world. Stay-at-home regulations and travel quarantines aimed to curb the spread of the COVID-19 virus in Hawai'i caused many businesses to shut down or drastically reduce operations.

Due to the COVID-19 pandemic, unemployment rates in Maui County peaked at 33 percent in April 2020, compared to just 2.1 percent the previous month in March 2020. As the State has slowly reopened, unemployment has gradually decreased. In April 2023, Maui County's unemployment rate was 2.8 percent, recovering closer to pre-pandemic levels (Department of Business, Economic Development & Tourism, 2023).

An Economic and Fiscal Impact Assessment Report will be prepared, as part of the environmental review process, to evaluate the effects of the proposed project on the local economy. A copy of the Economic and Fiscal Impact Assessment Report will be included and discussed in the Draft EIS.

## **C. PUBLIC SERVICES**

### **1. Police and Fire Protection**

The headquarters of the County of Maui Police Department (MPD) are located at its Wailuku Station. The department consists of several patrol, support, administrative, and investigative divisions that service the Hāna, Lāna'i, Lāhainā, Moloka'i, Wailuku, and Kīhei regions. The MPD's Wailuku and Kahului Stations service the Wailuku-Kahului region.

Fire prevention, protection, and suppression services are provided by the County of Maui, Department of Fire and Public Safety. The department has two (2) stations to service the Wailuku-Kahului region in proximity of the project area.

The project is located within the vicinity of existing communities in the central valley of Maui which are currently afforded similar services. The proposed project will not extend the service area for emergency service providers.

### **2. Medical Facilities**

The only major medical facility on the island is Maui Memorial Medical Center, which is located in Wailuku. This 214-bed facility provides general, acute, and emergency care services.

In addition, smaller-scale clinics, doctors and dentist offices are situated throughout the central valley area, including Maui Medical Group and Kaiser Permanente, to provide health care for the island of Maui. The proposed project is not anticipated to impact medical facilities in Central Maui.

### **3. Education Facilities**

The State DOE operates several schools in the Wailuku-Kahului region. Public school facilities within the Wailuku-Kahului District area include: two (2) high schools, Henry Perrine Baldwin High and Maui High (grades 9 to 12); two (2) intermediate schools, Iao Intermediate and Maui Waena Intermediate School (grades 6 to 8); and six (6) elementary schools (Grades K to 5), Wailuku Elementary, Waihe'e Elementary, Pōmaika'i Elementary, Kahului Elementary, Lihikai Elementary, and Pu'u Kukui Elementary School. The area is also served by several privately operated schools providing education for elementary, intermediate, and high school students. Privately operated schools serving the Wailuku-Kahului region include St. Anthony School (grades K to 12), Ka'ahumanu Hou Christian School (grades K to 12), Emmanuel Lutheran School (preschool to grade 8), and Maui Adventist School (grades 1 to 8).

The University of Hawai'i Maui College (UHMC), located in Kahului, is a branch of the University of Hawai'i system. UHMC is the primary higher education institution serving Maui.

The proposed project is not anticipated to impact educational facilities in Central Maui.

#### **4. Recreational Facilities**

Within the Wailuku-Kahului Community Plan Region, there are many recreational activities, including shoreline and boating activities at the Kahului Harbor and adjoining beach parks, and organized recreational activities provided/offered at County Parks. In the vicinity of the WWRF and SAT project site are Waikapū Park and Community Center as well as the Central Maui Regional Sports Complex. In Wailuku town are Wells Park, the Wailuku Elementary School Park, the Īao Valley State Park, the Kehalani Mauka Park, the Velma McWayne Santos Community Center, Papohaku Park, War Memorial Athletic complex, Wailuku Little League baseball fields, the 65-acre Maui Regional Park, Maui Lani Parkway Park, Sakamoto Swimming Pool, and Keōpūolani Regional Park. In addition, there are several golf courses in the Wailuku-Kahului region. These include the Kahili and Kamehameha Golf Courses, The Dunes at Maui Lani Golf Course, and the Maui County-owned Waiehu Golf Course.

The proposed project is not anticipated to impact recreational facilities in Central Maui.

#### **5. Solid Waste Collection**

Single-family residential solid waste collection service is provided by the County of Maui. Residential solid waste collected by County crews is disposed of at the County's Central Maui Landfill facility, located four (4) miles southeast of the Kahului Airport. In addition to County-collected refuse, the Central Maui Landfill also accepts commercial waste from private collection companies. In addition, a County-supported green waste recycling facility is located at the Central Maui Landfill.

During the construction phase of the project, waste and recyclable materials will be transported to appropriate processing facilities. A construction waste management plan will be developed by the DEM in coordination with the contractor to ensure waste is properly disposed of and to identify construction efficiency opportunities.

A discussion of solid waste considerations will be included in the Draft EIS.

## **D. INFRASTRUCTURE**

### **1. Roadways**

The proposed project area includes the existing Wai'ale Road and its future extension area, Waiko road, and the intersection of Wai'ale Road and Kuikahi Drive. In order to mitigate potential traffic impacts during the construction period, a Construction Traffic Management Plan (CTMP) will be prepared prior to the start of construction and will be included and discussed in the Draft EIS.

In addition, a Traffic Impact Analysis Report (TIAR) will be prepared as part of the environmental review process to assess the potential traffic impacts associated with the proposed project. A copy of the project's TIAR will be also included and discussed in the Draft EIS.

### **2. Water System**

As the proposed action is to develop a new wastewater treatment facility with related improvements, the use of potable water is anticipated to be minimal. A PEDR for the proposed project will be prepared as part of the environmental review process to assess water needs for the proposed development. A copy of the PEDR will be included and discussed in the Draft EIS.

### **3. Wastewater**

The DEM Wastewater Reclamation Division (WWRD) operates a total of five (5) WWRF in Maui County. In regards to the Wailuku-Kahului community plan region, the Wailuku-Kahului WWRF located near the Kahului Harbor services the Wailuku-Kahului region and has the capacity to treat approximately 7.9 million gallons per day (mgd). The Wailuku-Kahului WWRF utilizes injection wells to dispose treated effluent. As mentioned in Chapter I, the Central Maui WWRF project is being proposed to alleviate pressure on the Wailuku-Kahului WWRF. A Facility Plan for the proposed project will be prepared as part of the environmental review process to describe infrastructure needs and service areas, including collection, treatment, and reuse options. A copy of the Facility Plan will be included and discussed in the Draft EIS.

### **4. Drainage System**

As previously mentioned, a PEDR for the proposed project will be prepared as part of the environmental review process to assess the potential drainage impacts of the project and develop a conceptual drainage plan to mitigate any identified impacts. A copy of the PEDR will be included and discussed in the Draft EIS and will describe the design of the proposed drainage system for the project.

## **5. Electrical, Telephone, and Cable Television**

Electrical power, telephone, and cable television services to the region are provided by Maui Electric Company, Hawaiian Telcom, and Spectrum, respectively. As previously mentioned, a PEDR will be prepared as part of the environmental review process, a copy of which will be included and discussed in the Draft EIS.

## **E. CUMULATIVE AND SECONDARY IMPACTS**

Cumulative impacts are defined by Title 11, Chapter 200.1, HAR, Environmental Impact Statement Rules as:

*[T]he impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.*

The proposed project is not a part of a larger action, nor is it dependent upon other actions or projects. An assessment of the project's potential cumulative impacts will be examined in further detail in the Draft EIS.

"Secondary impacts" or "indirect effects" are defined by Title 11, Chapter 200.1, HAR as:

*An [e]ffect which is caused by the action and is later in time or farther removed in distance, but is still reasonably foreseeable. An indirect effect may include a growth inducing effect and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems including ecosystems.*

Secondary impacts are those which have the potential to occur later in time or farther in the distance, but are still reasonably foreseeable. They can be viewed as actions of others that are taken because of the presence of the project. Secondary impacts from highway projects, for example, can occur because they can induce development by removing one of the impediments to growth. Secondary impacts will be addressed in further detail in the Draft EIS.



## **RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES, AND CONTROLS**



### **III. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES, AND CONTROLS**

The following chapter sets forth the land use regulatory context for the implementation of the proposed project.

#### **A. STATE LAND USE DISTRICTS**

Pursuant to Chapter 205, Hawai'i Revised Statutes (HRS), all lands in the State have been placed into one (1) of four (4) major land use districts by the State Land Use Commission (LUC). These land use districts are designated "Urban", "Rural", "Agricultural", and "Conservation". The majority of the project area is located within the "Agricultural" district, and the Kehalani Wastewater Pump Station (WWPS) is located within the "Urban" district. The approximately 14.9-acre project site for the Wastewater Reclamation Facility (WWRF) and onsite Soil Aquifer Treatment (SAT) is located within the State "Agricultural" District in its entirety. See **Figure 14**.

A District Boundary Amendment (DBA) will be sought to designate the 14.9-acre WWRF and SAT site as State "Urban" District. Pursuant to Section 205-3.1 (b), HRS, a DBA involving land areas of 15 acres or less shall be determined by the appropriate county land use decision-making authority. For the County of Maui, the Maui County Council is the decision-making authority for DBAs. Inasmuch as the proposed WWRF and SAT site is less than 15 acres, the County of Maui, Department of Environmental Management (DEM) will seek a DBA from the Council. By letter dated February 10, 2023, the Department of Planning confirmed that the uses and areas of the proposed Central Maui WWRF and SAT site would qualify for DBA processing under the approval authority of the Council. Refer to **Appendix "B"**. It is noted that the DBA application will be initiated by the Planning Director.

The offsite project components, which include an access/utility corridor (easement), sewage pipelines, a WWPS, and a R-1 recycled water pipeline, are also located within the State "Agricultural" district. Pursuant to HRS, Chapter 205-4.5(7), sewage pipelines, pump stations, and roadways are considered permitted uses within the State "Agricultural" district:

*"Public, private, and quasi-public utility lines and roadways, transformer stations, communications equipment buildings, solid waste transfer stations, major water storage tanks, and appurtenant small buildings such as booster pumping stations, but not including offices or yards for equipment, material, vehicle storage, repair or maintenance, treatment plants, corporation yards, or other similar structures."*

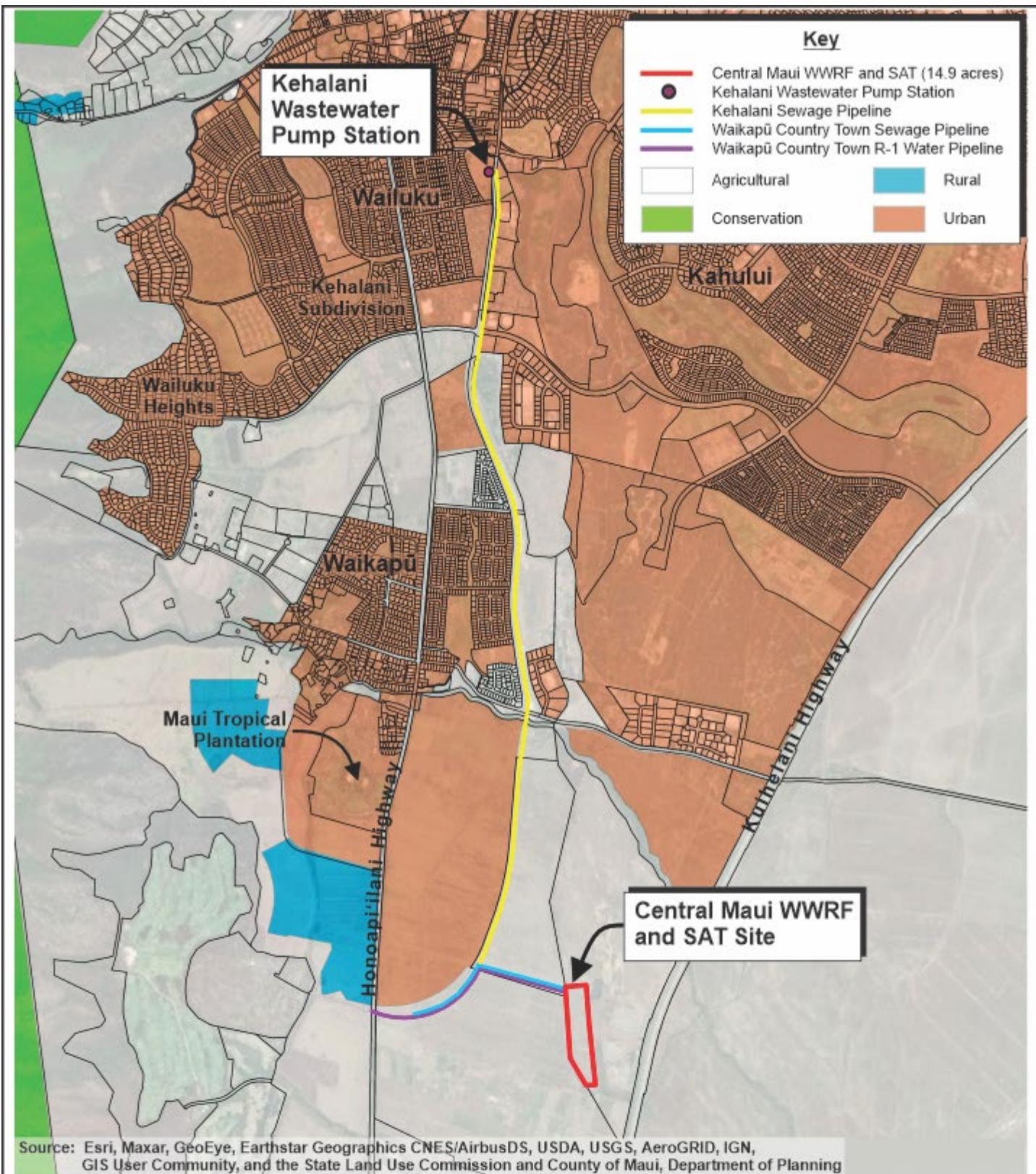


Figure 14 Proposed Central Maui Wastewater Reclamation Facility State Land Use District Map



0 1250 2500 Feet

Prepared for: County of Maui, Department of Environmental Management

MUNEKIYO HIRAGA

This allowed use is further reflected in Maui County Code (MCC), Chapter 19.30A.050 which classifies minor utility facilities as a principal permitted use within the County “Agricultural” zoning District. Minor utility facilities as defined by MCC 19.04.040, “means transmission lines used directly in the distribution of utility services that have minor impact on adjacent land uses which include, but which are not limited to, twenty-three kilovolt transmission substations, vaults, water wells, tanks and distribution equipment, sewage pump stations, and other similar type uses.” As such, the offsite supporting infrastructure components of the proposed project located in the State “Agricultural” district are a permitted use and will not require a DBA.

## **B. HAWAI'I STATE PLAN**

Chapter 226, HRS, also known as the Hawai'i State Plan, is a long-range comprehensive plan which serves as a guide for the future long-term development of the State by identifying goals, objectives, policies, and priorities, as well as implementation mechanisms. An assessment of the proposed project in the context of the Hawai'i State Plan will be presented in the Draft EIS.

## **C. STATE FUNCTIONAL PLANS**

A key element of the Statewide Planning System is the Functional Plans which set forth the policies, statewide guidelines, and priorities within a specific field of activity. There are 13 Functional Plans which have been developed by the State agency primarily responsible for a given functional area. Together with the County General Plans, the State Functional Plans establish more specific strategies for implementation. In particular, State Functional Plans provide for the following:

- Identify major Statewide priority concerns
- Define current strategies for each functional area
- Identify major relationships among functional areas
- Provide direction and strategies for departmental policies, programs, and priorities
- Provide a guide for the allocation of resources
- Coordinate State and County roles and responsibilities in the implementation of the Hawai'i State Plan

The Draft EIS will provide an assessment of the relationship between the proposed project and the 13 State Functional Plans.

## **D. GENERAL PLAN OF THE COUNTY OF MAUI**

As indicated by the Maui County Charter, the purpose of the general plan shall be to:

*...indicate desired population and physical development patterns for each island and region within the county; shall address the unique problems and needs of each island and region; shall explain opportunities and the social, economic, and environmental consequences related to potential developments; and shall set forth the desired sequence, patterns and characteristics of future developments. The general plan shall identify objectives to be achieved, and priorities, policies, and implementing actions to be pursued 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.*

Chapter 2.80B of the MCC, relating to the General Plan and Community Plans, implements the foregoing Charter provision through enabling legislation which calls for a Countywide Policy Plan and a Maui Island Plan. The Countywide Policy Plan was adopted as Ordinance No. 3732 on March 24, 2010, while the Maui Island Plan, which delineates areas for future urban and rural growth as part of a Directed Growth Strategy, was adopted as Ordinance No. 4004 on December 28, 2012.

Both documents are comprehensive in nature and address a number of functional planning areas which apply to all programs, plans, and projects. However, for purposes of addressing General Plan compliance requirements, policy considerations which are deemed most relevant to the proposed project in terms of compatibility and consistency will be identified in the Draft EIS.

### **1. Countywide Policy Plan**

Ordinance No. 3732 adopted the General Plan Countywide Policy Plan 2030 and took effect on March 24, 2010. With regard to the Countywide Policy Plan, Section 2.808.030 of the MCC states the following:

*The countywide policy plan shall provide broad policies and objectives which portray the desired direction of the County's future.  
The countywide policy plan shall include:*

1. *A vision for the County;*
2. *A statement of core themes or principles for the county; and*
3. *A list of countywide objectives and policies for population, land use, the environment, the economy, and housing.*

*Core principles set forth in the Countywide Policy Plan are listed as follows:*

1. *Excellence in the stewardship of the natural environment and cultural resources;*
2. *Compassion for and understanding of others;*
3. *Respect for diversity;*
4. *Engagement and empowerment of Maui County residents;*
5. *Honor for all cultural traditions and histories;*
6. *Consideration of the contributions of past generations as well as the needs of future generations;*
7. *Commitment to self-sufficiency;*
8. *Wisdom and balance in decision making;*
9. *Thoughtful, island-appropriate innovation; and*
10. *Nurturance of the health and well-being of our families and our communities.*

*Congruent with these core principles, the Countywide Policy Plan identifies goals, objectives, policies and implementing actions for pertinent functional planning categories, which are identified as follows:*

1. *Natural environment*
2. *Local cultures and traditions*
3. *Education*
4. *Social and healthcare services*
5. *Housing opportunities for residents*
6. *Local economy*
7. *Parks and public facilities*
8. *Transportation options*
9. *Physical infrastructure*
10. *Sustainable land use and growth management*
11. *Good governance.*

An assessment of the proposed project in the context of the goals, objectives, policies, and implementing actions of the Countywide Policy Plan will be presented in the Draft EIS.

## **2. Maui Island Plan**

The Maui Island Plan (MIP) is applicable to the island of Maui only, providing more specific policy-based strategies for population, land use, transportation, public and community facilities, water and wastewater systems, visitor destinations, urban design, and other matters related to future growth.

As provided by Chapter 2.80B, the MIP shall include the following components:

1. *An island-wide land use strategy, including a managed and directed growth plan*
2. *A water element assessing supply, demand and quality parameters*
3. *A nearshore ecosystem element assessing nearshore waters and requirements for preservation and restoration*
4. *An implementation program which addresses the County's 20-year capital improvement requirements, financial program for implementation, and action implementation schedule*
5. *Milestone indicators designed to measure implementation progress of the MIP*

It is noted that Ordinance No. 4004 does not address the component relating to the implementation program. Chapter 2.80B of the MCC, relating to the General Plan, was amended via Ordinance No. 3979, October 5, 2012, to provide that the implementation program component be adopted no later than one (1) year following the effective date of Ordinance No. 4004. In December 2013 and March 2014, the Council approved time extensions for approval and adoption of the implementation chapter of the MIP. The implementation program component of the MIP was adopted as Ordinance No. 4126 on May 29, 2014.

The MIP addresses a number of planning categories with detailed policy analysis and recommendations which are framed in terms of goals, objectives, policies and implementing actions. These planning categories address the following areas:

1. *Population*
2. *Heritage Resources*

3. *Natural Hazards*
4. *Economic Development*
5. *Housing*
6. *Infrastructure and Public Facilities*
7. *Land Use*

An essential element of the MIP is its Directed Growth Plan which provides a management framework for future growth in a manner that is fiscally, environmentally, and culturally prudent. The proposed project will serve to support both existing developments as well as growth areas supported by the MIP. The proposed WWRF and SAT project site itself is located on land designated by the MIP for a regional park and County facilities. See **Figure 15**. The MIP also identifies preservation areas, regional parks, greenways, greenbelts, and sensitive land as Protected Areas. The proposed WWRF and SAT project site is located within the Park Protected Area and small portions of the proposed Kehalani Sewage Pipeline along the future Wai‘ale Road extension area are located within the Park and Preservation Protected Area. See **Figure 16**.

In addition, among the directed growth management tools developed through the MIP process are maps delineating urban growth boundaries (UGB), small town boundaries (STB) and rural growth boundaries (RGB). The respective boundaries identify areas appropriate for future growth and their corresponding intent with respect to development character. The WWRF and SAT project site is located within the UGB for the Wailuku-Kahului community and a small portion of the Kehalani Sewage Pipeline is located within the STB. See **Figure 17**.

The Draft EIS will include an assessment of the proposed project in the context of the goals, objectives, policies, implementing actions and directed growth of the plan of the MIP.

## **E. WAILUKU-KAHULUI COMMUNITY PLAN**

Within Maui County, there are nine (9) community plan regions. From a General Plan implementation standpoint, each region is governed by a Community Plan which sets forth desired land use patterns, as well as goals, objectives, policies, and implementing actions for a number of functional areas, including infrastructure-related parameters. The project area is located within the Wailuku-Kahului Community Plan region.

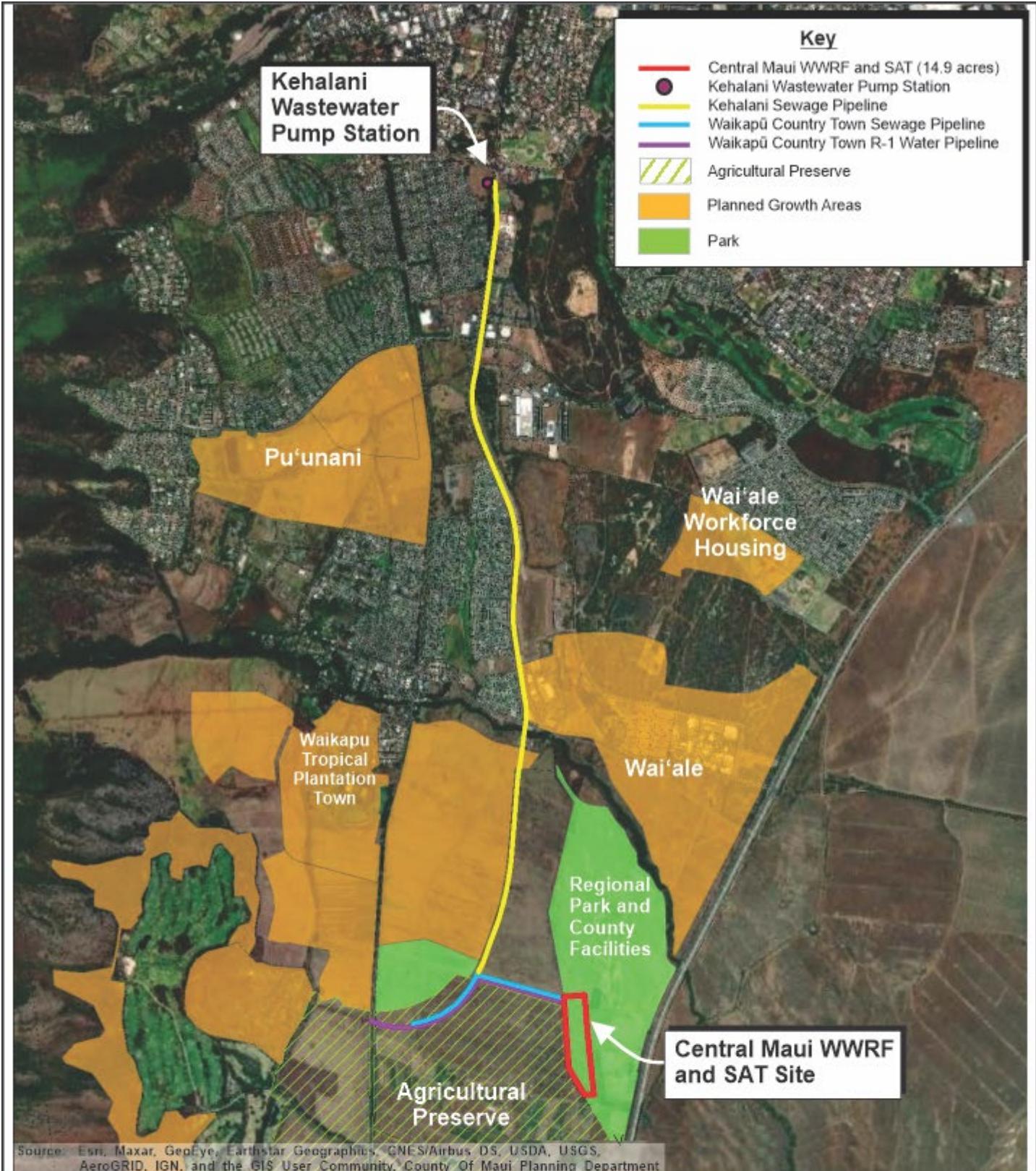


Figure 15 Proposed Central Maui Wastewater Reclamation Facility  
Maui Island Plan Growth Areas



0 1250 2500 Feet

Prepared for: County of Maui, Department of Environmental Management

MUNEKIYO HIRAGA

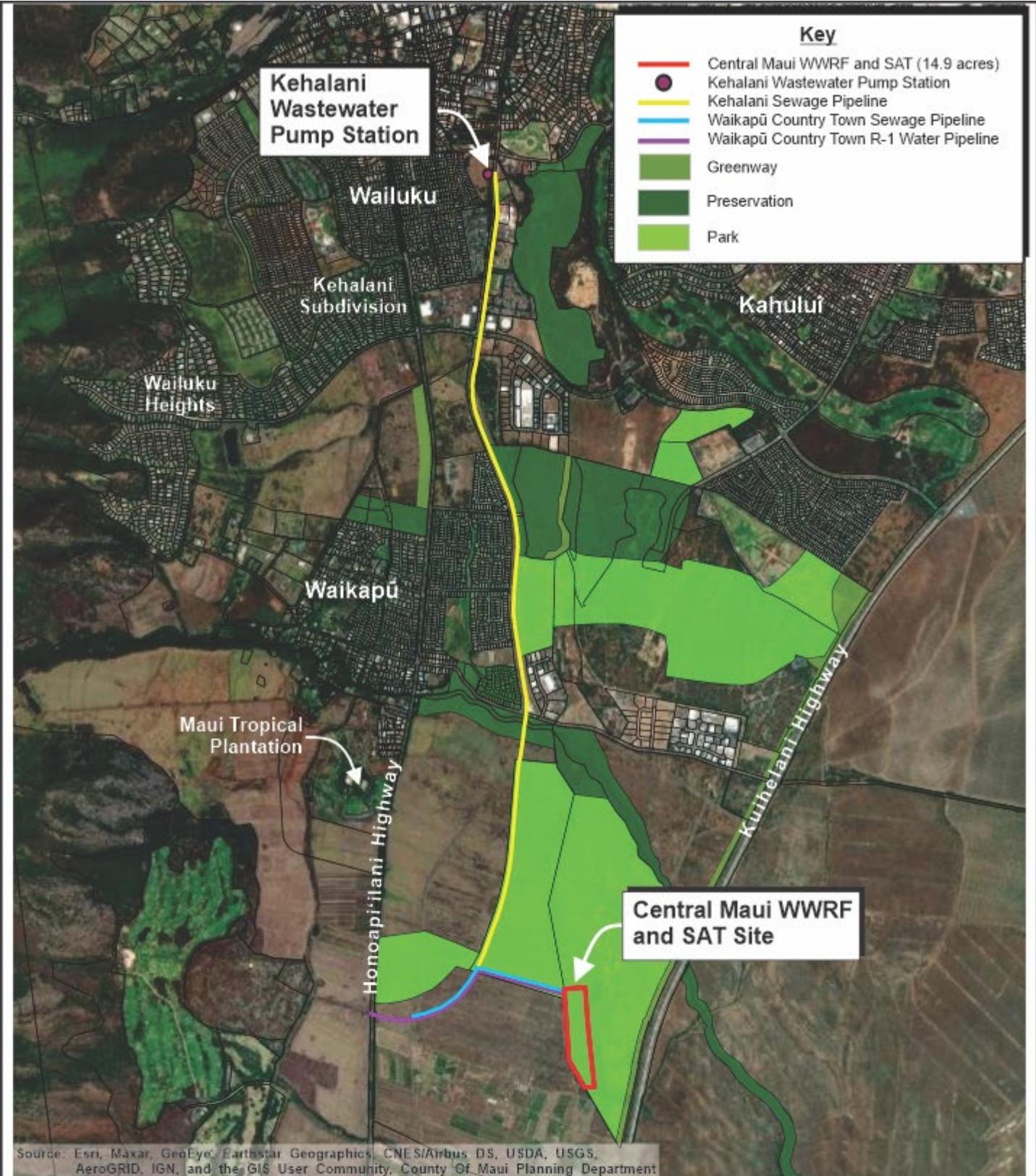


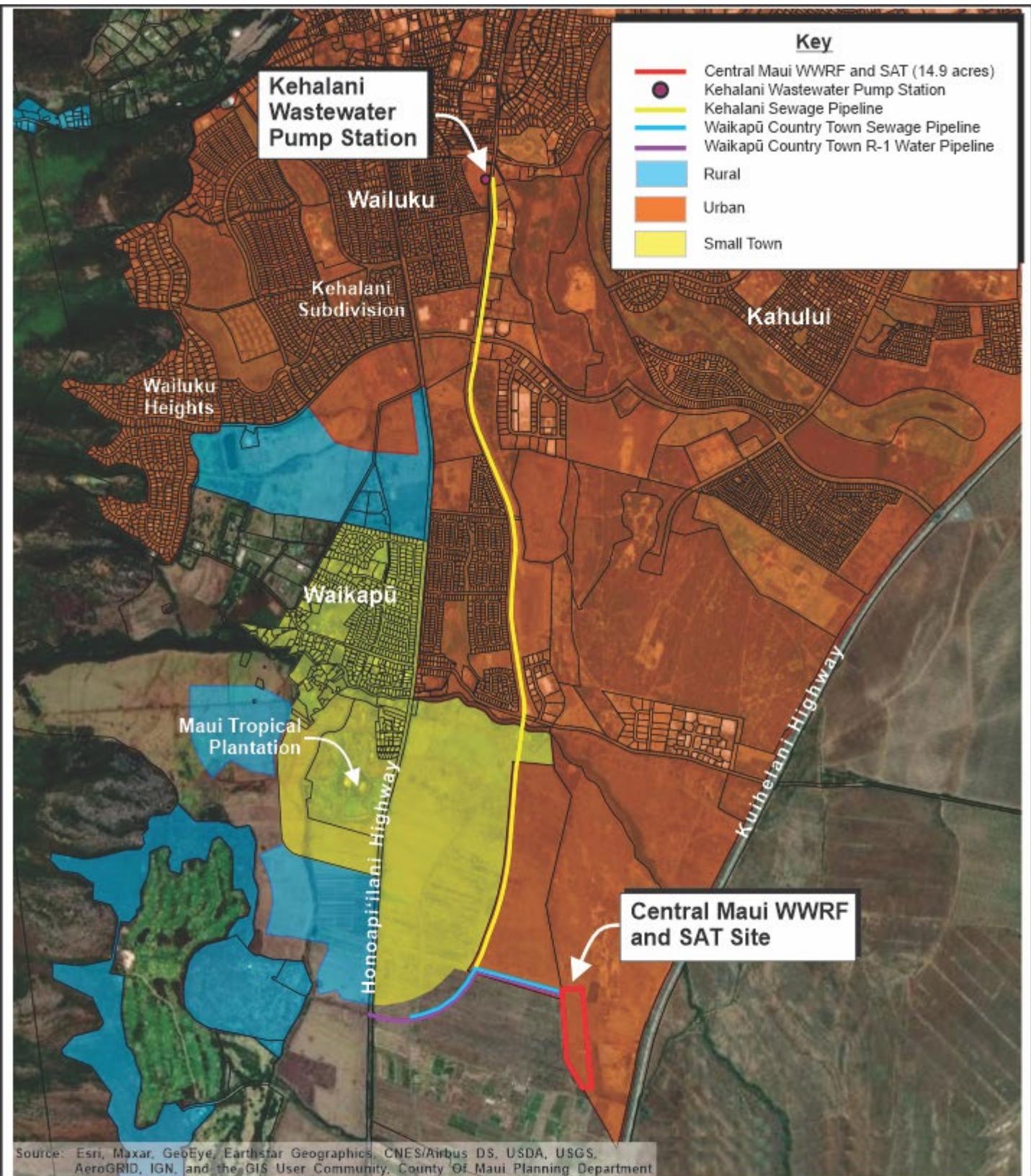
Figure 16 Proposed Central Maui Wastewater Reclamation Facility  
Maui Island Plan Protected Areas



0 625 1250 2500 Feet

Prepared for: County of Maui, Department of Environmental Management

MUNEKIYO HIRAGA



**Figure 17 Proposed Central Maui Wastewater Reclamation Facility  
Maui Island Plan Growth Boundaries**



Prepared for: County of Maui, Department of Environmental Management

 MUNEKIYO HIRAGA

Land use designations are set forth by the Wailuku-Kahului Community Plan Land Use Maps. See **Figure 18**.

Most of the project area is designated by the Wailuku-Kahului Community Plan for “Agricultural” use with exceptions of portions of the Kehalani Sewage Pipeline located within areas designated for “Public/Quasi-public” and “Project District” uses, and the Kehalani WWPS located in areas designated for “Project District” use. As the WWRF and SAT site is currently designated for “Agricultural”, the proposed project will seek a Community Plan Amendment (CPA) from the Maui County Council for “Public/Quasi-Public” designation. It is noted that the CPA application will be initiated by the Planning Director. A detailed assessment of the proposed project in the of the goals, objectives, and policies of the Wailuku-Kahului Community Plan will be presented in the Draft EIS.

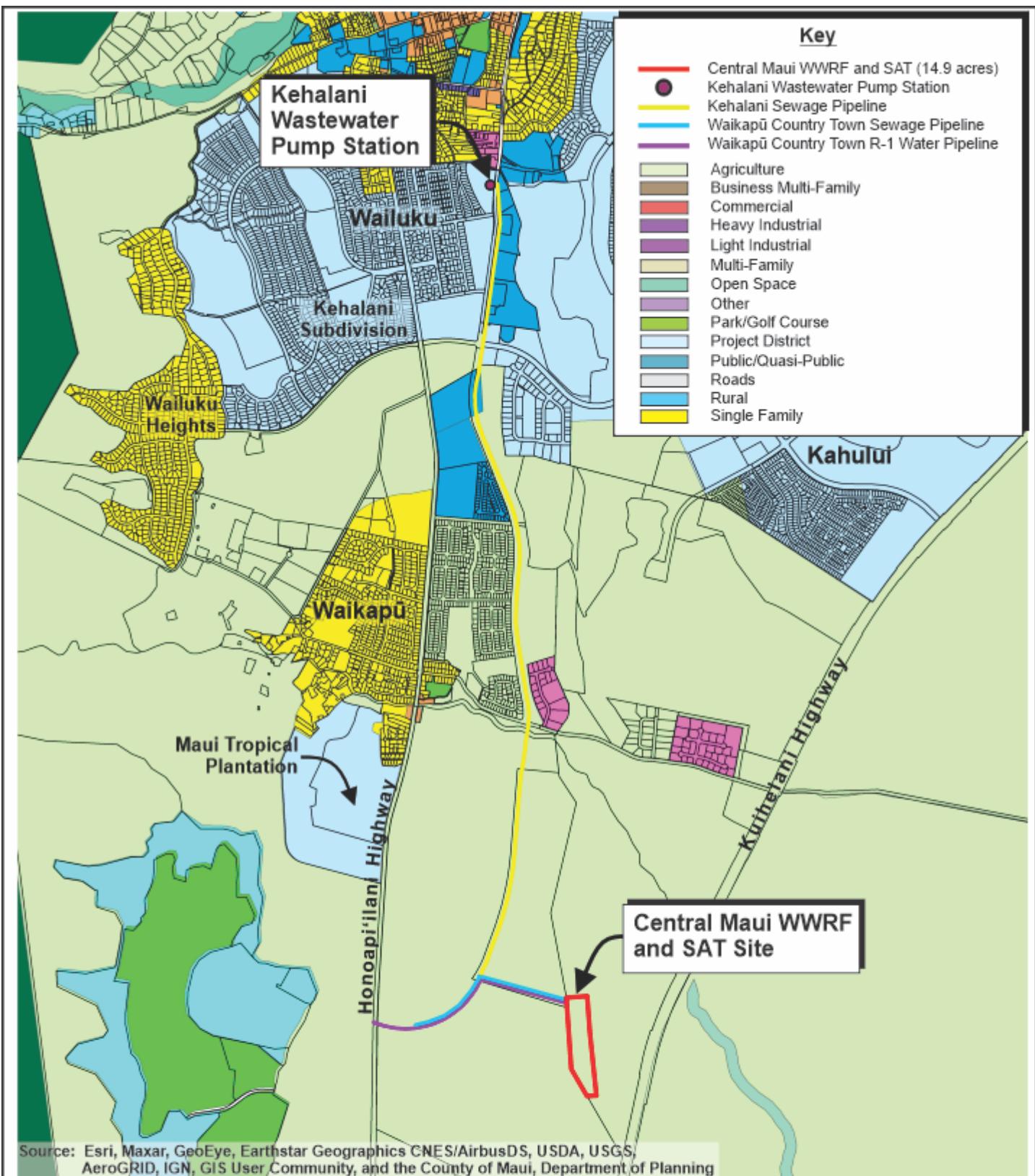
## F. **MAUI COUNTY ZONING**

Existing County zoning designations for the project area are set forth in **Figure 19**. A majority of the project area is zoned “Agriculture” with portions of the project within the existing Waiale Road zoned as “Road” and the Kehalani WWPS zoned as “Project District”. Pursuant to Chapter 19.31A, MCC, permitted uses in the “Agricultural” District are limited to agricultural production and related accessory and special use. The proposed Central Maui WWRF and SAT is not a permitted use within the County “Agricultural” District. To implement the project, a Change of Zoning (COZ) will be required from the “Agricultural” district to a more appropriate land use designation. To construct the proposed WWRF and SAT, the appropriate zoning district to be requested is the “Public/Quasi-Public (P-1)” District, which permits wastewater treatment facilities. It is noted that the COZ application will be initiated by the Planning Director.

As mentioned previously, the offsite infrastructure components for the project in County-zoned agricultural lands are anticipated to qualify as minor utilities and, as such, a permitted use within such lands.

Applicable Project District processing requirements will be complied with for the Kehalani WWPS which is located within the Kehalani Project District.

Further discussion of the proposed project in relation to County zoning will be provided in the Draft EIS.



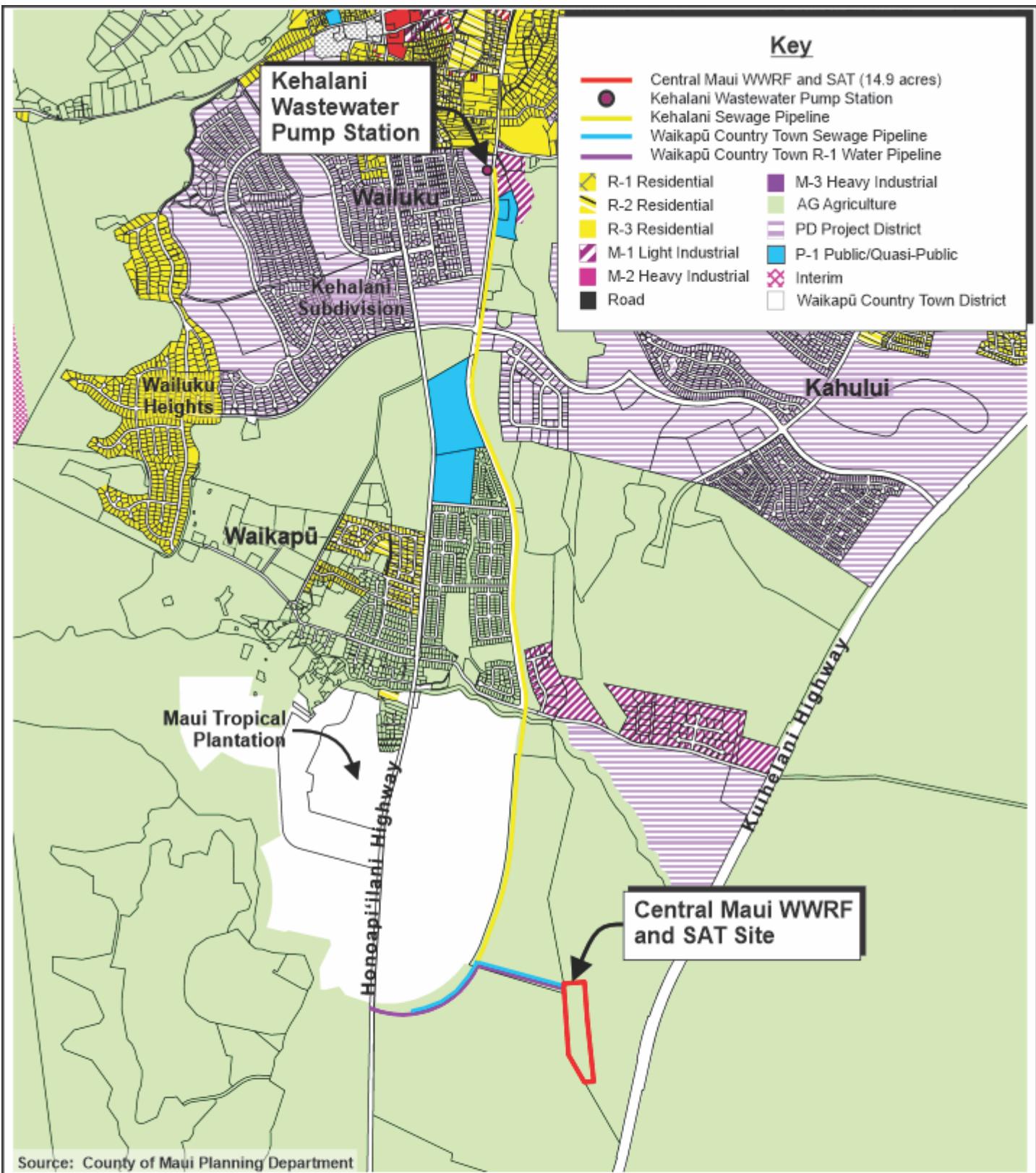
**Figure 18 Proposed Central Maui Wastewater Reclamation Facility  
Wailuku-Kahului Community Plan**



Prepared for: County of Maui, Department of Environmental Management

 MUNEKIYO HIRAGA

COM/DEM CMaui W/W Infrastructure Applications/Figures/WKCP



**Figure 19 Proposed Central Maui Wastewater Reclamation Facility  
Maui County Zoning Map**



0 1250 2500  
Feet

Prepared for: County of Maui, Department of Environmental Management

MUNEKIYO HIRAGA

## **G. COASTAL ZONE MANAGEMENT PROGRAM**

The Hawai'i Coastal Zone Management Program (HCZMP), as formalized in Chapter 205A, HRS, establishes objectives and policies for the preservation protection and restoration of natural resources of the Hawai'i Coastal Zone. The Coastal Zone Management (CZM) area is defined as all lands of the State and the area extending seaward from the shoreline to the limit of the State's police power and management authority, including the United States territorial sea. The County of Maui utilizes its SMA regulatory mechanism to implement the HCZMP.

The project area is located outside of the County of Maui's SMA. See **Figure 20**. Although the proposed project is not within the County of Maui's SMA, the applicability of coastal zone management considerations applies to all lands in the State of Hawai'i and, as such, will be reviewed and assessed in the Draft EIS.

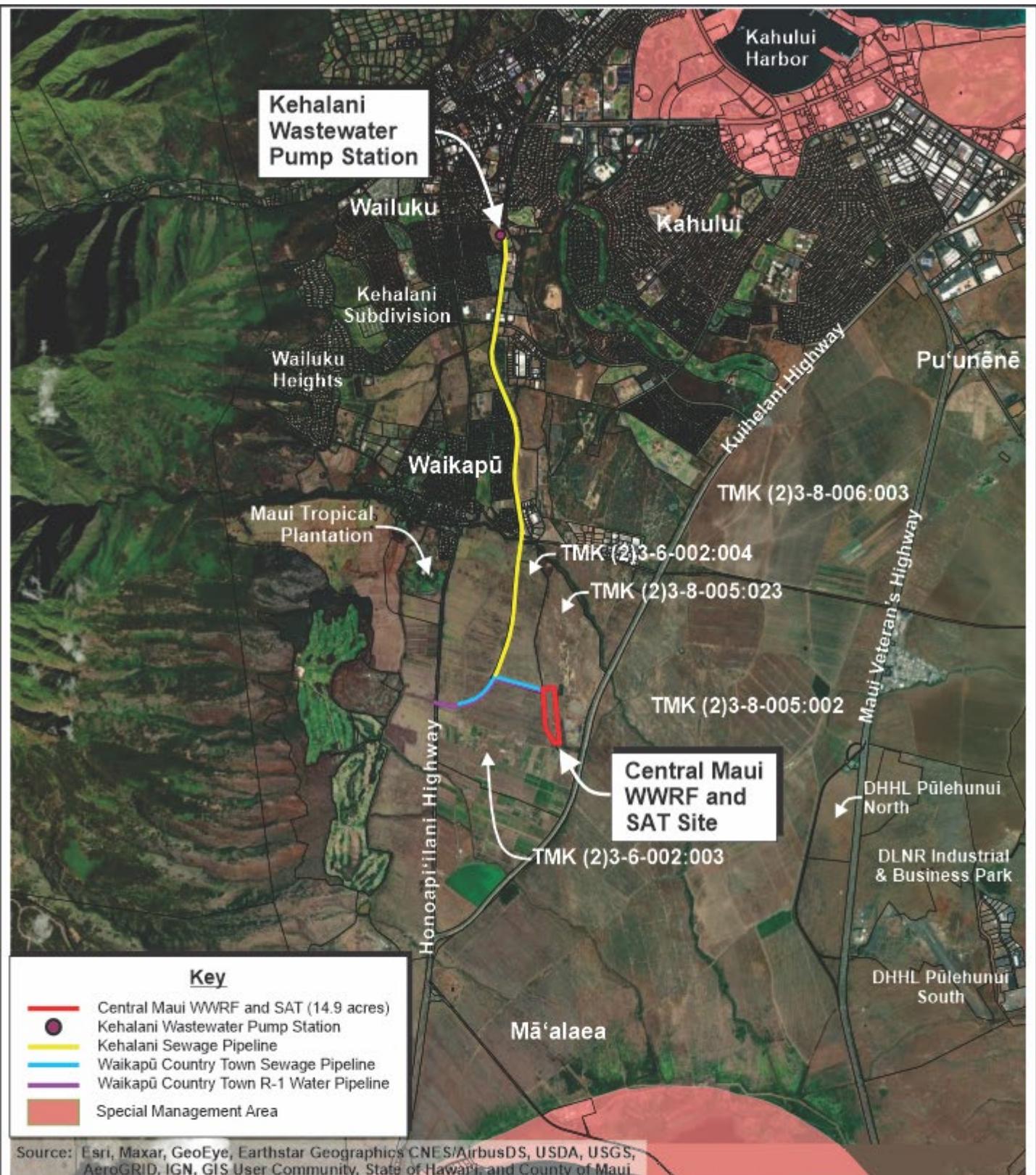


Figure 20 Proposed Central Maui Wastewater Reclamation Facility Special Management Area Map

Prepared for: County of Maui, Department of Environmental Management





## **ALTERNATIVES TO THE PROPOSED ACTION**

# **IV**

## **IV. ALTERNATIVES TO THE PROPOSED ACTION**

As outlined in Chapter I, the Applicant is proposing the development of a new Central Maui Wastewater Reclamation Facility (WWRF) to service the Central Maui region. The proposed project is needed to alleviate pressure on the Wailuku-Kahului WWRF and provide adequate wastewater treatment facilities to accommodate increased wastewater flows and support both existing planned developments in the region. The following is a summary of possible alternatives that may be considered and discussed further in the Draft Environmental Impact Statement (EIS).

### **A. NO ACTION ALTERNATIVE**

With the no action alternative, a new WWRF for Central Maui would not be developed and the County of Maui, Department of Environmental Management (DEM) would continue to rely on the existing Wailuku-Kahului WWRF to provide sewer service to the communities in the central valley. The existing facility has limited capacity to support planned growth. The no action alternative is not considered a viable scenario in the context of the limitations of the existing Wailuku-Kahului WWRF. The no action alternative is not consistent with the objectives of the proposed action, but will nevertheless be presented in the Draft EIS in accordance with Section 11-200.1-24(h), Hawai'i Administrative Rules (HAR).

### **B. LOCATION ALTERNATIVES**

Various private and County-owned parcels were considered for the WWRF and Soil Aquifer Treatment (SAT) project site, as well as the Kehalani Wastewater Pump Station (WWPS). Based on evaluation of underlying soils as well as land ownership, the preferred alternative location for the Central Maui WWRF and SAT is on land owned by the County of Maui and identified as TMK (2)3-8-005:023. Based on preliminary engineering assessment, the preferred alternative for the Kehalani WWPS is the existing stormwater basin parcel for the master-planned Kehalani community owned by the County of Maui and identified as TMK (2)3-5-020:036. Only a small portion of this parcel (maximum 10,000 square feet) would be utilized for the WWPS. The WWPS would be designed to maintain the existing performance of the basin such that detention capabilities would not be significantly impacted.

The DEM assessed various alternatives for the Kehalani WWPS location, which included a portion of Maui Community Correctional Center parking lot along Wai'ale Road (TMK (2)3-8-046:005 and 006) and a portion of the County of Maui baseyard at TMK (2) 3-4-003:001 and (2)3-4-003:022. See **Figure 21**. These alternative locations were not selected due to their existing uses and need for those existing uses to be relocated, as well as flood zone considerations.



Figure 21

## Proposed Central Maui Wastewater Reclamation Facility



Kehalani Wastewater Pump Station Location Alternatives

NOT TO SCALE

Prepared for: County of Maui, Department of Environmental Management

 MUNEKIYO HIRAGA

### **C. LIQUID AND SOLID MANAGEMENT ALTERNATIVE**

There are two (2) alternative methods considered for liquid and solids management for the proposed WWRF. The preferred alternative treatment method involves R-1 and Biological Nutrient Removal (BNR) via Modified Ludack-Ettinger (MLE) Activated Sludge. Filtration and disinfection would be conducted with Aerobic Digestion, dewatering, and composting. The second alternative treatment method also uses R-1 and BNR, however, the BNR is conducted via a Membrane Bioreactor (MBR). Although BNR via MBR leaves a smaller footprint than BNR via MLE, the preferred alternative requires less energy consumption overall. Further discussion of this alternative will be provided in the Draft EIS.

### **D. EFFLUENT MANAGEMENT ALTERNATIVES**

Three (3) alternatives are being considered for the effluent management with all alternatives involving water recycling/re-use as the primary disposal method. The preferred alternative involves the use of an onsite SAT for back-up effluent disposal. Due to the soils in the project area, the SAT was determined to be the most suitable land treatment system and offers greater environmental protection when compared to other alternatives. Another alternative would be to use injection wells for effluent management, which is the method currently used at four (4) of the County operated WWRFs including the Wailuku-Kahului WWRF. However, injection wells have been the subject of concerns in recent years regarding potential impacts to near-shore reef environments. Furthermore, state law prohibits DOH from issuing permits for construction of new injection wells if other options are feasible. A final alternative for effluent management involves effluent disposal via ocean outfall which poses both ecological and human health risks. As such, the SAT has been selected as the most environmentally safe back-up disposal method for effluent management for the proposed WWRF.

Further discussion of the effluent management alternatives for the project will be provided in the Draft EIS.

**SUMMARY OF ADVERSE  
ENVIRONMENTAL EFFECTS  
THAT CANNOT BE  
AVOIDED**

**V**

## **V. SUMMARY OF ADVERSE ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED**

The development of the project will result in certain unavoidable construction-related impacts as will be further discussed in the Draft Environmental Impact Statement (EIS).

Potential effects include short-term noise, air, and water quality impacts occurring during the site preparation and construction phases of the project. These impacts will arise as a direct result of construction activities, such as the generation of noise from construction equipment, the generation of dust and other airborne pollutants, and erosion from wind and stormwater runoff during grading and other construction activity. Appropriate Best Management Practices (BMPs), such as use of sound attenuating construction equipment, will be used, where practicable, to mitigate noise impacts caused by construction; as well as installation of dust fences and watering of exposed areas to mitigate air quality impacts, and temporary drainage measures to handle water quality impacts from stormwater runoff.

Further, assessment of the proposed project will be carried out during preparation of the Draft EIS, which will identify other potential impacts and mitigation measures. The Draft EIS will include a range of technical studies including Noise and Air Quality studies, as well as a Preliminary Engineering and Drainage Report. The Draft EIS will include the results of these studies and potential mitigation measures to minimize any adverse impacts resulting from the project. A complete list of the proposed studies is noted in Chapter I.

Implementation of the proposed project is expected to result in the irreversible and irretrievable commitment of land and fiscal resources. Other resource commitment categories relate to energy, labor, and material resources. This commitment, however, is considered appropriate in the context of the project's objectives and long-range land use goals.

# **SIGNIFICANCE CRITERIA ASSESSMENT**

**VI**

## **VI. SIGNIFICANCE CRITERIA ASSESSMENT**

The proposed project, its expected primary and secondary consequences, as well as the short-and long-term effects of the action, have been evaluated in accordance with the Significance Criteria of the Department of Health (DOH), Section 11-200.1-13 of the Hawai'i Administrative Rules (HAR), Title 11, Chapter 200.1, "Environmental Impact Statement Rules". A more thorough review and assessment of the significance criteria will be presented in the Draft Environmental Impact Statement (EIS) once technical studies have been completed. Considerations for preliminary significance criteria assessment are presented below:

**1. Irrevocably commit a natural, cultural, or historic resource.**

Archaeological documentation and Cultural Impact Assessment (CIA) will be prepared for the project area. Copies of these studies and appropriate mitigation measures, as may be necessary, will be included and discussed in the Draft EIS.

Consultation with the State Historic Preservation Division (SHPD) and Office of Hawaiian Affairs (OHA) will be conducted to ensure historic, archaeological, and cultural concerns are addressed and appropriate mitigation measures identified.

The proposed project's potential impact to natural and cultural resources and proposed mitigation measures, as may be necessary, will be assessed through the preparation of appropriate studies, including preliminary engineering and environmental studies which will be provided in the Draft EIS.

**2. Curtail the range of beneficial uses of the environment.**

Technical studies will be prepared and included in the Draft EIS and will contribute to the environmental review process. For example, assessment of drainage will be investigated during the EIS preparation phase and the findings will be used to assess potential impacts and appropriate mitigation measures to minimize any reduction in the beneficial uses of the environment.

**3. Conflict with the State's environmental policies or long-term environmental goals established by law.**

The State's Environmental Policy and Guidelines are set forth in Chapter 344, Hawai'i Revised Statutes (HRS). Upon completion of the technical reports for the Draft EIS document, an assessment of the project relative to the State's environmental policies and guidelines will be undertaken.

**4. Have a substantial adverse effect on the economic welfare, social welfare, or cultural practices of the community and State.**

The project will directly benefit the local economy by providing construction and construction-related employment. The project will also provide adequate infrastructure to support both existing and future development projects in the area, including affordable housing, which will have a beneficial effect on the economic and social welfare on Maui. A more detailed analysis of the proposed project's potential impact on economic welfare, social welfare, or cultural practices of the community or State will be discussed in the Draft EIS. A Fiscal and Economic Impact Assessment and CIA for the project will be undertaken, and copies will be included and discussed in the Draft EIS.

**5. Have a substantial adverse effect on public health.**

Technical studies addressing health-related issues, such as air quality, noise emissions, and water quality will be prepared and discussed in the Draft EIS. In addition, upon completion, the project is expected to have positive impacts on public health through the treatment of wastewater for communities in the central valley of Maui.

**6. Involve adverse secondary impacts, such as population changes or effects on public facilities.**

Technical studies addressing public infrastructure and services will be included in the Draft EIS. Coordination will be undertaken during the environmental review process with State and County agencies, as well as with utility service providers, to address services and facilities requirements for the project.

**7. Involve a substantial degradation of environmental quality.**

A full range of technical studies will be carried out in preparation of the Draft EIS to identify impacts and offer appropriate mitigation measures to minimize potential for environmental degradation. For example, preliminary engineering work will investigate drainage options to mitigate adverse impacts to downstream and adjacent properties. Archaeological, cultural, and biological investigations will be conducted to ensure that valued historical, cultural, and biological resources are appropriately managed. Copies of the foregoing studies will be included and discussed in the Draft EIS.

**8. Be individually limited but cumulatively have substantial adverse effect upon the environment or involves a commitment for larger actions.**

The proposed project is not part of a larger action, nor is it dependent upon other actions or projects. Inasmuch as the proposed project provides wastewater treatment infrastructure, the project will support both existing and planned development in the area, including affordable housing. A further analysis of the project's potential cumulative and/or secondary impacts will be included in the Draft EIS.

**9. Have a substantial adverse effect on a rare, threatened, or endangered species, or its habitat.**

A Flora and Fauna Survey will be conducted within the project area to assess the existence of rare, threatened, or endangered species or habitats. A copy of the Flora and Fauna Study report will be included and discussed in the Draft EIS.

**10. Have a substantial adverse effect on air or water quality or ambient noise levels.**

Construction activities will result in short-term noise, air, and water quality impacts. Appropriate noise, air, and water quality control measures, such as maintenance of construction equipment, dust control measures (regular watering and sprinkling, and installation of dust fences), and erosion control measures, will be implemented during grading and construction activities. State and County regulations, such as the HAR, Title 11, Chapter 46, "Community Noise Control", will be complied with, as applicable. Appropriate permits, if required, such as a noise permit and National Pollutant Discharge Elimination Permit System (NPDES), will be obtained prior to the initiation of any construction activity.

Potential impacts on noise, air, and water quality resulting from the project will be assessed in technical studies, copies of which will be included and discussed in the Draft EIS.

**11. Have a substantial adverse effect on or be likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, sea level rise exposure area, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.**

The proposed project is located within the central valley of Maui, inland of coastal areas and associated hazards. Assessments relating to environmentally sensitive areas, impacts, and potential mitigation measures will be carried out and the results incorporated into the Draft EIS document. The majority of the project (with the exception of the Waikapū Stream crossing) is located in Flood Hazard Zone X, an area of minimal flood hazard and is located within the Tsunami Safe Zone. In addition, the project is located outside of the projected 3.2-foot sea level rise exposure area.

**12. Have a substantial adverse effect on scenic vistas and viewplanes, during day or night, identified in county or state plans or studies.**

The proposed project will be limited to development of low-rise buildings such as WWRF-related structures and a wastewater pump station including at-grade and below grade improvements such as an access road and pipelines. Potential effects on scenic and open space resources and scenic view corridors resulting from the proposed project will be evaluated in greater detail and discussed in the Draft EIS document.

**13. Require substantial energy consumption or emit substantial greenhouse gases.**

The project will involve the commitment of fuel for construction equipment, vehicle and machinery during construction and maintenance activities. A Greenhouse Gas study will be undertaken for the project and included in the Draft EIS. Further, sustainability measures to reduce overall energy consumption and greenhouse gas emissions associated with the project will be evaluated by the design team as project planning progresses.

Given the size of the proposed project and the potential impacts that need to be addressed in greater detail, the DEM has determined that an EIS is warranted pursuant to Chapter 343, HRS, and Section 11-200.1-14(d)(2), HAR.

**LIST OF PERMITS AND  
APPROVALS**

**VII**

## **VII. LIST OF PERMITS AND APPROVALS**

The following is a preliminary list the permits and approvals that are anticipated to be required for implementation of the proposed project:

**Federal:**

1. National Environmental Policy Act (NEPA) compliance, as applicable, including related federal consultation requirements.
2. U.S. Department of Army (DA) Permit, as applicable

**State of Hawai‘i:**

1. Chapter 343, Hawai‘i Revised Statutes (HRS), Environmental Impact Statement
2. Chapter 6E, HRS, Historic Preservation Compliance
3. National Pollutant Discharge Elimination System (NPDES) Permit
4. Noise Permit, as applicable
5. Section 401 Water Quality Certification, as applicable (if DA permit required)
6. Coastal Zone Management Consistency Determination, as applicable (if DA permit required)
7. Hawai‘i Administrative Rules (HAR) 11-62, Wastewater Systems, Approval to Construct
8. HAR 11-62, Wastewater Systems, Approval to Operate

**County of Maui:**

1. District Boundary Amendment/Community Plan Amendment/Change of Zoning (for WWRF/SAT site which is less than 15 acres in area)
2. Building Permits
3. Other Construction Permits (i.e., grading, electrical, plumbing)

**PUBLIC SCOPING  
MEETING**

**VIII**

## **VIII. PUBLIC SCOPING MEETING**

A public scoping meeting for the project, as required by Chapter 11-200.1-23, Hawai'i Administrative Rules for the Department of Health, will be held on Wednesday, August 16, 2023 at 6:00 p.m. at the Waikapū Community Center located at 22 East Waiko Road, Waikapū, Hawai'i, 96793.

**PARTIES TO BE CONSULTED  
DURING THE PREPARATION  
OF THE DRAFT  
ENVIRONMENTAL IMPACT  
STATEMENT**

**IX**

## **IX. PARTIES TO BE CONSULTED DURING THE PREPARATION OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT**

### **Federal Agencies**

1. Gerald Gregory, District Conservationist  
Natural Resources Conservation Service  
U.S. Department of Agriculture  
77 Ho'okele Street, Suite 202  
Kahului, Hawai'i 96732
2. Kay Zukeran  
NOAA Inouye Regional Center  
NMFS/PIRO  
1845 Wasp Blvd., Building 176  
Honolulu, Hawai'i 96818
3. Leah Fisher, Interim Chief  
U.S. Department of the Army  
U.S. Army Corps of Engineers  
Honolulu District  
Regulatory Branch, Building 230  
Fort Shafter, Hawai'i 96858-5440  
**Via email:**  
[CEPOH-RO@usace.army.mil](mailto:CEPOH-RO@usace.army.mil)
4. U.S. Environmental Protection Agency  
Region 9 (Pacific Southwest)  
Pacific Islands Contact Office  
300 Ala Moana Blvd., Room 5124  
Honolulu, Hawai'i 96850
5. Earl Campbell, Project Leader  
U.S. Fish and Wildlife Service  
Pacific Islands Fish and Wildlife Office  
300 Ala Moana Blvd., Rm. 3-122  
Honolulu, Hawai'i 96850
7. Sharon Hurd, Chairperson  
Department of Agriculture  
State of Hawai'i  
1428 South King Street  
Honolulu, Hawai'i 96814-2512
8. James Kunane Tokioka, Director  
Department of Business, Economic Development & Tourism (DBEDT)  
State of Hawai'i  
P.O. Box 2359  
Honolulu, Hawai'i 96804
9. Keith Hayashi, Superintendent  
Department of Education  
State of Hawai'i  
P.O. Box 2360  
Honolulu, Hawai'i 96804
10. Department of Education, Office of Planning  
State of Hawai'i  
3633 Waialae Avenue, Room C-209  
Honolulu, Hawai'i 96816
11. Kali Watson, Chair  
Department of Hawaiian Home Lands  
State of Hawai'i  
P.O. Box 1879  
Honolulu, Hawai'i 96805
12. Kenneth S. Fink, MD, MGA, MPH,  
Director  
Department of Health  
State of Hawai'i  
1250 Punchbowl St., Room 325  
Honolulu, Hawai'i 96813
13. Kathleen Ho, Deputy Director  
Department of Health, Environmental Health Administration  
State of Hawai'i  
1250 Punchbowl Street  
Honolulu, Hawai'i 96813

### **State Agencies**

6. Keith A. Regan, Comptroller  
Department of Accounting and General Services  
State of Hawai'i  
1151 Punchbowl Street, #426  
Honolulu, Hawai'i 96813

14. Alec Wong, P.E., Chief  
Department of Health  
Clean Water Branch  
State of Hawai'i  
Hale Ola, Room 225  
2827 Waimano Home Road  
Pearl City, Hawai'i 96782
15. Sina Pruder, P.E., Chief  
Department of Health, Wastewater Branch  
Environmental Management Division  
State of Hawai'i  
Hale Ola Building  
2827 Waimano Home Road, Room 207  
Pearl City, Hawai'i 96782
16. Patti Kitkowski, District Environmental Health Program Chief  
Department of Health  
Maui Sanitation Branch  
State of Hawai'i  
54 South High Street, Room 301  
Wailuku, Hawai'i 96793
17. Lene Ichinotsubo  
Department of Health  
Solid and Hazardous Waste Branch  
State of Hawai'i  
2827 Waimano Road, Suite 100  
Pearl City, Hawai'i 96782-1407
18. Dawn N. S. Chang, Chairperson  
Department of Land and Natural Resources  
State of Hawai'i  
P.O. Box 621  
Honolulu, Hawai'i 96809  
**Via email:** [dlnr@hawaii.gov](mailto:dlnr@hawaii.gov) and [dlnr.land@hawaii.gov](mailto:dlnr.land@hawaii.gov)
19. M. Kaleo Manuel, Deputy Director  
Department of Land and Natural Resources  
Commission on Water Resource Management  
State of Hawai'i  
P.O. Box 621  
Honolulu, Hawai'i 96809  
**Via email:** [dlnr@hawaii.gov](mailto:dlnr@hawaii.gov) and [dlnr.land@hawaii.gov](mailto:dlnr.land@hawaii.gov)
20. Michael Cain, Administrator  
Department of Land and Natural Resources  
Office of Conservation and Coastal Lands  
State of Hawai'i  
1151 Punchbowl Street, Room 131  
Honolulu, Hawai'i 96813  
**Via email:** [dlnr@hawaii.gov](mailto:dlnr@hawaii.gov) and [dlnr.land@hawaii.gov](mailto:dlnr.land@hawaii.gov)
21. Edwin Sniffen, Director  
Department of Transportation  
State of Hawai'i  
869 Punchbowl Street, Room 509  
Honolulu, Hawai'i 96813-5097
22. Denise Iseri-Matsubara, Executive Director  
Hawai'i Housing Finance and Development Corporation  
State of Hawai'i  
677 Queen Street  
Honolulu, Hawai'i 96813
23. Sylvia Hussey, Ed.D., Chief Executive Officer  
Office of Hawaiian Affairs  
State of Hawai'i  
560 N. Nimitz Highway, Suite 200  
Honolulu, Hawai'i 96817
24. Mary Alice Evans, Acting Director  
Office of Planning and Sustainable Development  
Environmental Review Program  
State of Hawai'i  
235 South Beretania St., Room 702  
Honolulu, Hawai'i 96804
25. Dan Orodenker, Executive Officer  
Land Use Commission, DBEDT  
State of Hawai'i  
P.O. Box 2359  
Honolulu, Hawai'i 96804
- County of Maui Agencies**
26. Bradford Ventura, Chief  
Department of Fire and Public Safety  
County of Maui  
200 Dairy Road  
Kahului, Hawai'i 96732

27. Lori Tsuhako, Director  
 Department of Housing and Human Concerns  
 County of Maui  
 2200 Main Street, Suite 546  
 Wailuku, Hawai'i 96793
28. Patrick McCall, Director  
 Department of Parks and Recreation  
 County of Maui  
 700 Halia Nakoa Street, Unit 2F  
 Wailuku, Hawai'i 96793
29. Kathleen Ross Aoki, Director  
 Department of Planning  
 County of Maui  
 2200 Main Street, Suite 315  
 Wailuku, Hawai'i 96793
30. Jordan Molina, Director  
 Department of Public Works  
 County of Maui  
 200 South High Street, 4th Floor  
 Wailuku, Hawai'i 96793
31. Marc Takamori, Director  
 Department of Transportation  
 County of Maui  
 110 Ala'ihhi Street, Suite 210  
 Kahului, Hawai'i 96732
32. John Stufflebean, P.E., Director  
 Department of Water Supply  
 County of Maui  
 200 South High Street, 5th Floor  
 Wailuku, Hawai'i 96793
33. Maui County Cultural Resources Commission  
 County of Maui  
 2200 Main Street, Room 315  
 Wailuku, Hawai'i 96793
34. Herman Andaya, Administrator  
 Maui Emergency Management Agency  
 County of Maui  
 200 South High Street, 1st Floor  
 Wailuku, Hawai'i 96793
35. John Pelletier, Chief  
 Maui Police Department  
 County of Maui  
 55 Mahalani Street  
 Wailuku, Hawai'i 96793
36. Luana Mahi, Director  
 Office of Economic Development  
 County of Maui  
 2200 Main Street, Suite 305  
 Wailuku, Hawai'i 96793
- Maui County Council**
37. Alice Lee, Council Chair  
 Maui County Council  
 County of Maui  
 200 High Street, 8th Floor  
 Wailuku, Hawai'i 96793
38. Keani Rawlins-Fernandez, Vice Chair  
 Maui County Council  
 County of Maui  
 200 High Street, 8th Floor  
 Wailuku, Hawai'i 96793
39. Shane Sinenci, Councilmember  
 Maui County Council  
 County of Maui  
 200 High Street, 8th Floor  
 Wailuku, Hawai'i 96793
40. Tasha Kama, Councilmember  
 Maui County Council  
 County of Maui  
 200 High Street, 8th Floor  
 Wailuku, Hawai'i 96793
41. Gabe Johnson, Councilmember  
 Maui County Council  
 County of Maui  
 200 High Street, 8th Floor  
 Wailuku, Hawai'i 96793
42. Tom Cook, Councilmember  
 Maui County Council  
 County of Maui  
 200 High Street, 8th Floor  
 Wailuku, Hawai'i 96793
43. Nohelani U'u-Hodgins, Councilmember  
 Maui County Council  
 County of Maui  
 200 High Street, 7th Floor  
 Wailuku, Hawai'i 96793
44. Yuki Lei Sugimura, Councilmember  
 Maui County Council  
 County of Maui  
 200 High Street, 8th Floor  
 Wailuku, Hawai'i 96793

45. Tamara Paltin, Councilmember  
Maui County Council  
County of Maui  
200 High Street, 8th Floor  
Wailuku, Hawai'i 96793

**County of Maui Organizations**

46. Hawaiian Telcom  
Plan Review Department  
**Via email:**  
[HT-PlanReviews@hawaiiantel.com](mailto:HT-PlanReviews@hawaiiantel.com)

47. Scott Matsuura, President  
Kehalani Community Association  
P.O. Box 1530  
Wailuku, Hawai'i 96793

48. Pamela Tumpap, President  
Maui Chamber of Commerce  
62 N. Market Street, #302  
Wailuku, Hawai'i 96793

49. Debbie Cabebe, Chief Executive Officer  
Maui Economic Opportunity  
99 Mahalani Street  
Wailuku, Hawai'i 96793

50. Michael Grider, Manager, Engineering  
Maui Electric Company, Ltd.  
P. O. Box 398  
Kahului, Hawai'i 96733

51. Albert Perez, Executive Director  
Maui Tomorrow  
P. O. Box 880390  
Pukalani, Hawai'i 96788  
**Via mail and email:**  
[director.mauitomorrow@gmail.com](mailto:director.mauitomorrow@gmail.com)

52. Sierra Club Maui  
P.O. Box 791180  
Paia, Hawai'i 96779

53. Spectrum  
158 Ma'a Street  
Kahului, Hawai'i 96732

54. Brad Harger, President  
Waikapu Community Association  
**Via email:** [waikapuca@gmail.com](mailto:waikapuca@gmail.com)

55. Glenn Adolpho  
Waikapu Gardens Homeowners  
Association  
**Via email:** [gncadolpho@hawaiiantel.net](mailto:gncadolpho@hawaiiantel.net)

56. Kristin Holmes, President & Treasurer  
Wailuku Community Association  
P.O. Box 1966  
Wailuku, Hawai'i 96793

**Aha Moku Representatives**

57. Ke'eaumoku Kapu, CEO  
'Aha Moku O Maui  
**Via email:** [kapukapuakea@gmail.com](mailto:kapukapuakea@gmail.com)

58. U'ilani Kapu  
'Aha Moku O Maui  
Lahaina Moku  
**Via email:** [uilani.kapu@gmail.com](mailto:uilani.kapu@gmail.com)

59. Kaipo Kekona  
'Aha Moku O Maui  
Kā'anapali Moku  
**Via email:** [kekona83@gmail.com](mailto:kekona83@gmail.com)

60. Clyde Kahalehau  
'Aha Moku O Maui  
Wailuku Moku  
**Via email:** [rkkahalehau@gmail.com](mailto:rkkahalehau@gmail.com)

61. Ki'ai Collier  
'Aha Moku O Maui  
Hāmākuapoko Moku  
**Via email:** [kiai.collier@hilt.org](mailto:kiai.collier@hilt.org)

62. Joyclyn Costa  
'Aha Moku O Maui  
Hāmākualoa Moku  
**Via email:** [ikalai.kauihou@gmail.com](mailto:ikalai.kauihou@gmail.com)

63. Nichole Inouye-Nohara, Interim  
'Aha Moku O Maui  
Ko'olau Moku  
**Via email:** [nic.mkf@gmail.com](mailto:nic.mkf@gmail.com)

64. Sam Akoi  
'Aha Moku O Maui  
Hāna Moku  
**Via email:** [ulupono@gmail.com](mailto:ulupono@gmail.com)

65. Lind 'Ohana, Interim  
'Aha Moku O Maui  
Kīpahulu Moku  
**Via email:** [terrance\\_lind@yahoo.com](mailto:terrance_lind@yahoo.com)

66. Lyons Cabacungan  
'Aha Moku O Maui  
Kaupō Moku  
**Via email:** [ahamokuokaupo@gmail.com](mailto:ahamokuokaupo@gmail.com)

67. Chad Newman  
‘Aha Moku O Maui  
Kahikinui Moku  
**Via email:** [kahikinui93@yahoo.com](mailto:kahikinui93@yahoo.com)
68. Ka’onohi Lee  
‘Aha Moku O Maui  
Honua’ula Moku  
**Via email:** [kaonohi66@gmail.com](mailto:kaonohi66@gmail.com)
69. Timothy Bailey  
‘Aha Moku O Maui  
Kula Mauka Moku  
**Via email:** [paulokaleioku@hawaiiantel.net](mailto:paulokaleioku@hawaiiantel.net)
70. Cody Nemet, Interim  
‘Aha Moku O Maui  
Kula Makai Moku  
**Via email:** [kokoroots@gmail.com](mailto:kokoroots@gmail.com)

### **Libraries**

71. Hawai‘i Document Center, Hawai‘i State Library  
State of Hawai‘i, Department of Education  
478 South King Street  
Honolulu, Hawai‘i 96813
72. Wailuku Public Library  
State of Hawai‘i  
251 S. High Street  
Wailuku, Hawai‘i 96793

## **REFERENCES**

**X**

## X. REFERENCES

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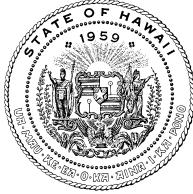
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<http://www.fws.gov/wetlands/Data/Mapper.html>.

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**LETTER FROM GOVERNOR  
DATED JUNE 2, 2023  
DESIGNATING COUNTY OF  
MAUI, DEPARTMENT OF  
ENVIRONMENTAL  
MANAGEMENT AS  
ACCEPTING AUTHORITY**

**APPENDIX**

**A**



EXECUTIVE CHAMBERS  
KE KE'ENA O KE KIA'ĀINA

JOSH GREEN, M.D.  
GOVERNOR  
KE KIA'ĀINA

June 2, 2023

Shayne Agawa, Director  
Department of Environmental Management  
County of Maui  
200 South High Street  
Wailuku, Hawai'i 96793

SUBJECT: Accepting Authority for the Proposed Central Maui Wastewater Reclamation Facility Project; Waikapū, Maui, Hawai'i

Aloha Mr. Agawa:

Pursuant to Hawai'i Revised Statutes § 343-5(d)(1) and Hawai'i Administrative Rules (HAR) § 11-200.1-7(b), Environmental Impact Statement (EIS) Rules, agency actions involving State and County lands, or State and County funds, or both State and County lands and funds, the Governor or the Governor's authorized representative shall have the final authority to accept an environmental impact statement.

As the Central Maui Wastewater Reclamation Facility project is a regional wastewater infrastructure action being undertaken by the County of Maui with the assistance of State funds, I hereby designate the County's Department of Environmental Management as the authorized representative for reviewing, processing, and accepting the EIS for the project.

Mahalo,

A handwritten signature in black ink that reads "Josh Green M.D."

Josh Green, M.D.  
Governor, State of Hawai'i

c: Scott Rollins, County of Maui, Department of Environmental Management  
Juan Rivera, County of Maui, Department of Environmental Management  
Irina Constantinescu, Brown and Caldwell  
Yukino Uchiyama, Munekiyo Hiraga  
Emily Murai, Munekiyo Hiraga

**LETTER FROM DEPARTMENT  
OF PLANNING DATED  
FEBRUARY 10, 2023  
REGARDING MAUI COUNTY  
COUNCIL PROCESSING OF  
DISTRICT BOUNDARY  
AMENDMENT**

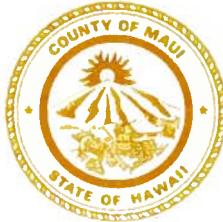
**APPENDIX**

**B**

**RICHARD T. BISSEN JR.**  
Mayor

**KATHLEEN ROSS AOKI**  
Acting Planning Director

**GARRETT E. SMITH**  
Deputy Director



**DEPARTMENT OF PLANNING  
COUNTY OF MAUI  
ONE MAIN PLAZA  
2200 MAIN STREET, SUITE 315  
WAILUKU, MAUI, HAWAI'I 96793**

February 10, 2023

Mr. Juan Rivera, P.E.  
Capital Improvements Program Manager  
Wastewater Reclamation Division  
Department of Environmental Management  
2200 Main Street, Suite 610  
Wailuku, Hawaii 96793

Dear Mr. Rivera:

**SUBJECT: CENTRAL MAUI WASTEWATER RECLAMATION  
FACILITY – AREA DETERMINATION FOR PROCESSING  
OF DISTRICT BOUNDARY AMENDMENT FOR  
PROPERTY LOCATED OFF OF KUIHELANI HWY, MAUI,  
HAWAII; TMK: (2) 3-8-005:023**

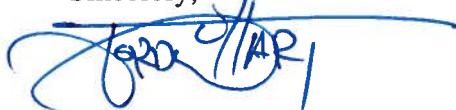
The Department of Planning (Department) is in receipt of your letter dated February 3, 2023 and email communications requesting a determination for the above-referenced project.

After reviewing the February 3, 2023 letter describing the project scope, transmitted from Irinia Constantinescu, Brown and Caldwell to Ms. Yukino Uchiyama, Munekiyo and Hiraga, it has been determined that the uses and areas as described and depicted would qualify for processing under the approval authority of the Maui County Council pursuant to *HAR 15-15-77 Decision-making criteria for boundary amendments*.

Mr. Juan Rivera, P.E.  
Wastewater Reclamation Division  
Department of Management  
February 10, 2023  
Page 2

If you require further clarification or discussion, feel free to contact me at (808) 270-7253  
or by email at [Jordan.Hart@mauicounty.gov](mailto:Jordan.Hart@mauicounty.gov).

Sincerely,



JORDAN E. HART  
Planning Program Administrator

For KATHLEEN ROSS AOKI  
Acting Planning Director

Attachment: February 3, 2023 project scope letter

Kathleen Ross Aoki, Acting Planning Director

Shayne Agawa, P.E., Acting Director, Department of Environmental Management

Jordan Hart, Planning Program Administrator, Zoning Administration and Enforcement Division

Ann Cua, Planning Program Administrator, Current Planning Division

Eric Nakagawa, P.E., Wastewater Reclamation Division Chief

Carolyn Cortez, Supervising Planner

EG&AX

KRA:JEH:CEC:lt

K:\WP\_DOCS\Planning\LTR\2023\238005023\_CentralValleyWWRF\Response.docx

2261 Aupuni Street, Suite 201  
Wailuku, Maui, HI 96793

T: 808.244.7005

February 3, 2023



Ms. Yukino Uchiyama  
Munekiyo Hiraga  
735 Bishop Street, Suite 412  
Honolulu, HI 96813

158098.305

Subject: Central Maui Wastewater Reclamation Facility - Project Description for Environmental Impact Statement Preparation Notice (EISPN)

Dear Ms. Uchiyama,

The County of Maui Department of Environmental Management (County) proposes to construct a new wastewater recycling facility (WWRF) in the Central Valley of Maui Island. The new Central Maui WWRF will provide a number of benefits to the community:

1. Provide wastewater treatment service to growth areas in the Central Valley area, as established in the Maui Island Plan. Wastewater treatment service is required to construct affordable and market rate housing in the area.
2. Divert a portion of the wastewater flow that is currently treated at the Wailuku-Kahului WWRF, reducing the volume of treated effluent that is currently disposed via injection wells at the facility.
3. Provide recycled water to irrigation users located near the Central Maui WWRF.

Figure 1 provides an overview of the Central Maui WWRF elements to be implemented by the County.

## 1. Wastewater Service Areas

Figure 2 presents the wastewater service areas that are expected to contribute wastewater to the Central Maui WWRF. Wastewater will be conveyed to the Central Maui WWRF by gravity sewers, pump stations, and pressurized pipelines.

The Central Maui WWRF will produce effluent that complies with State of Hawaii Department of Health (DOH) R-1 recycled water requirements. R-1 water will be available for potential users nearby, including the Waikapu Country Town development, nearby agricultural areas, and County properties.

## 2. Preliminary Flow Projections

Table 1 provides a summary of the projected average dry weather flow (ADWF) contributions from the wastewater service areas. As shown in the table, approximately half of the flow is expected to originate from areas that currently contribute flow to the Wailuku-Kahului WWRF. Diversion of the flow from the Wailuku-Kahului WWRF to the Central

Maui WWRF will reduce disposal volumes at the current facility. The remaining half of the flow is projected to originate from new and future growth areas within the wastewater service areas. The future potential development shown in the table is not defined at this time but could potentially include the existing Maalaea community if a decision is made to connect it to the Central Maui WWRF.

**Table 1. Anticipated Buildout Wastewater Flow from Developments in Service Area**

Wastewater Flow Source	Average Dry Weather Flow (mgd)	Percent of Total Buildout Capacity of 4 mgd
Existing Development (Diverted Flow from Wailuku-Kahului WWRF)	1.78	45%
New Anticipated Development Growth	1.93	48%
Future Potential Development	0.29	7%
Total	4.00	100%

Note: mgd = million gallons per day

The Central Maui WWRF will have an average dry weather flow capacity of 4 million gallons per day (mgd). Construction of the WWRF may be phased.

### 3. Summary of County of Maui Project Elements

The project elements to be implemented by the County of Maui are described in this section.

#### 3.1 New Kehalani Wastewater Pump Station and Force main

A new Kehalani Wastewater Pump Station (WWPS) located near Waiale Road, will be designed to divert all of the flow from the existing 18-inch sewer in Waiale Road away from the Wailuku-Kahului WWRF and instead pump it to the new Central Maui WWRF. A new wastewater forcemain will be designed to deliver flow from the new WWPS to the new Central Maui WWRF. Figure 1 shows the route of the forcemain.

The Kehalani WWPS will be constructed on parcel tax map key (TMK) number (2)3-5-020:036. The parcel is a stormwater detention basin that serves the Kehalani development. The new WWPS will be constructed on the edge of the detention basin, and modifications will be made to the detention basin to retain its full function as originally designed. Additional information will be presented in the Draft Environmental Impact Statement.

## 3.2 Central Maui Wastewater Reclamation Facility

The Central Maui Wastewater Reclamation Facility will provide wastewater treatment and effluent management for the service area.

### 3.2.1 Site

The Central Maui WWRF will be located on a portion of parcel TMK (2)3-8-005:023, owned by the County of Maui. The 209.04-acre parcel will be subdivided to provide a separate 14.9-acre parcel for the WWRF. Figure 3 shows the proposed WWRF location within the larger parcel. The WWRF location within the larger parcel was chosen to take advantage of the soil conditions present there for effluent disposal purposes, as described below.

The WWRF will be accessed from an extension of Waiale Road to be constructed by the County of Maui. A 100-foot-wide access and utility easement will be developed across parcel TMK (2) 3-6-002:004 for the new WWRF.

### 3.2.2 Liquid Treatment Processes

The Central Maui WWRF will include:

- **Preliminary treatment:** screening and grit removal to remove coarse debris prior to further treatment.
- **Secondary treatment with biological nutrient removal:** activated sludge process with anoxic zones, intermediate mixed liquor recycling, and clarification: to remove carbon and nitrogen.
- **Tertiary treatment:** filtration to remove suspended solids and turbidity.
- **UV disinfection:** to inactivate bacteria and viruses from the effluent.

Figure 4 includes a conceptual site plan for the facility.

### 3.2.3 Effluent Quality

The anticipated recycled water uses include irrigation of agricultural fields, parks, school yards, and streetscapes. The effluent from the Central Maui WWRF will comply with DOH requirements for R-1 recycled water. In addition, the effluent total nitrogen concentration will be 10 mg/L or less to ensure that the amount of total nitrogen applied to land with the recycled water does not exceed the needs of the crops that are irrigated with the R-1 water and to minimize the potential environmental impact of the effluent disposal system.

### 3.2.4 Water Recycling Program

A recycled water program is planned to be a major part of the effluent management system at the Central Maui WWRF. The water recycling program will extend Maui's freshwater resources by putting treated effluent to beneficial non-potable use, freeing up valuable potable and raw water resources for other uses. These uses include facilitating growth within the community and enhancing the environment.

Figure 5 shows the County-constructed portion of the pipeline that will be used to deliver recycled water to a recycled water storage facility to be constructed by Waikapu Country

Town. The portion of the pipeline located within the Waikapu Country Town Development will be constructed by the developer and was included in the Waikapu Country Town Final EIS. The portion of the pipeline located on the Waiale Road Extension will be constructed by the County of Maui.

Recycled water will be used for non-potable purposes at approved sites in accordance with DOH regulations and guidelines. Recycled water will also be used for agricultural irrigation purposes in the area shown in Figure 5.

### 3.2.5 Effluent Disposal

A wastewater effluent disposal system is necessary for the proposed WWRF. Hawaii Administrative Rules (HAR) Chapter 11-62 and the DOH's Recycled Water Guidelines require a backup effluent disposal system for all water reuse applications. This backup system ensures effluent can be safely disposed when recycled water supply exceeds the demand or if the recycled water fails to meet the required treatment specifications. The backup disposal system must be designed to allow for disposal of 100 percent of the WWRF flow.

Soil aquifer treatment (SAT) appears to be a viable effluent disposal approach for the Central Maui WWRF. SAT consists of the intermittent application of effluent at high hydraulic loading rates to basins constructed in highly permeable soils, such as sand or gravel. Treatment in the SAT process is accomplished via biological, chemical, and physical interactions that occur as the water percolates through the soil matrix to groundwater. Treatment benefits can include nitrogen and phosphorus removal, heavy metal and trace organic removal, and removal of endocrine disrupting chemicals. Vegetation may or may not be present and doesn't play a significant role in the treatment that is provided due to the high hydraulic loading rate. Vegetation can also be used as a visual mitigation method. The draft EIS will include a hydrogeological study of the proposed SAT system.

### 3.2.6 Solids Management

The proposed liquid treatment processes will create residual solids that will require management:

- **Grit and Screenings:** Grit and screenings will be washed and dewatered prior to disposal at the Central Maui Landfill.
- **Secondary and Tertiary Solids:** Secondary and tertiary will be stabilized using aerobic digestion with decant thickening. The digested solids will be dewatered using screw press technology. The dewatered solids will be managed in accordance with wastewater solids generated by the County's other WWRFs. Currently dewatered solids are composted with green waste at the Central Maui Landfill.

### 3.2.7 Ancillary Systems

Ancillary systems needed for the WWRF include electrical service, potable water, non-potable water, fire protection, stormwater management, and odor control.

**Electrical Systems:** It is anticipated that a new electrical service from Hawaiian Electric Company (HECO) will need to be brought to the site via underground or aboveground

electrical lines from the intersection of Waiale Road and Waiko Road following along the proposed Waiale Road extension or from Honoapiilani Highway. An emergency power system will be provided to ensure uninterrupted wastewater treatment in the event of power failure.

**Potable Water:** Potable water needs will be met by connection to the County water system.

**Non-Potable Water:** Non-potable utility water needs like hose bibbs, water cannons, and foam sprays will be met with R-1 effluent. A pump system will be needed to provide adequate flow and pressure.

**Fire Protection:** Fire protection systems will be needed for certain WWRF elements in accordance with applicable codes.

**Stormwater Management:** A stormwater system that is compliant with applicable codes will be required. A stormwater pump station may be required.

**Odor Control:** Wastewater treatment plants can be a source of nuisance odors to the surrounding community if not properly designed and/or operated. Not all processes with a wastewater treatment plant generate odors; nuisance odors are most commonly associated with anaerobic (without oxygen) conditions and with residual solids processing. Foul air collection and treatment will be provided for treatment processes that can generate nuisance odors.

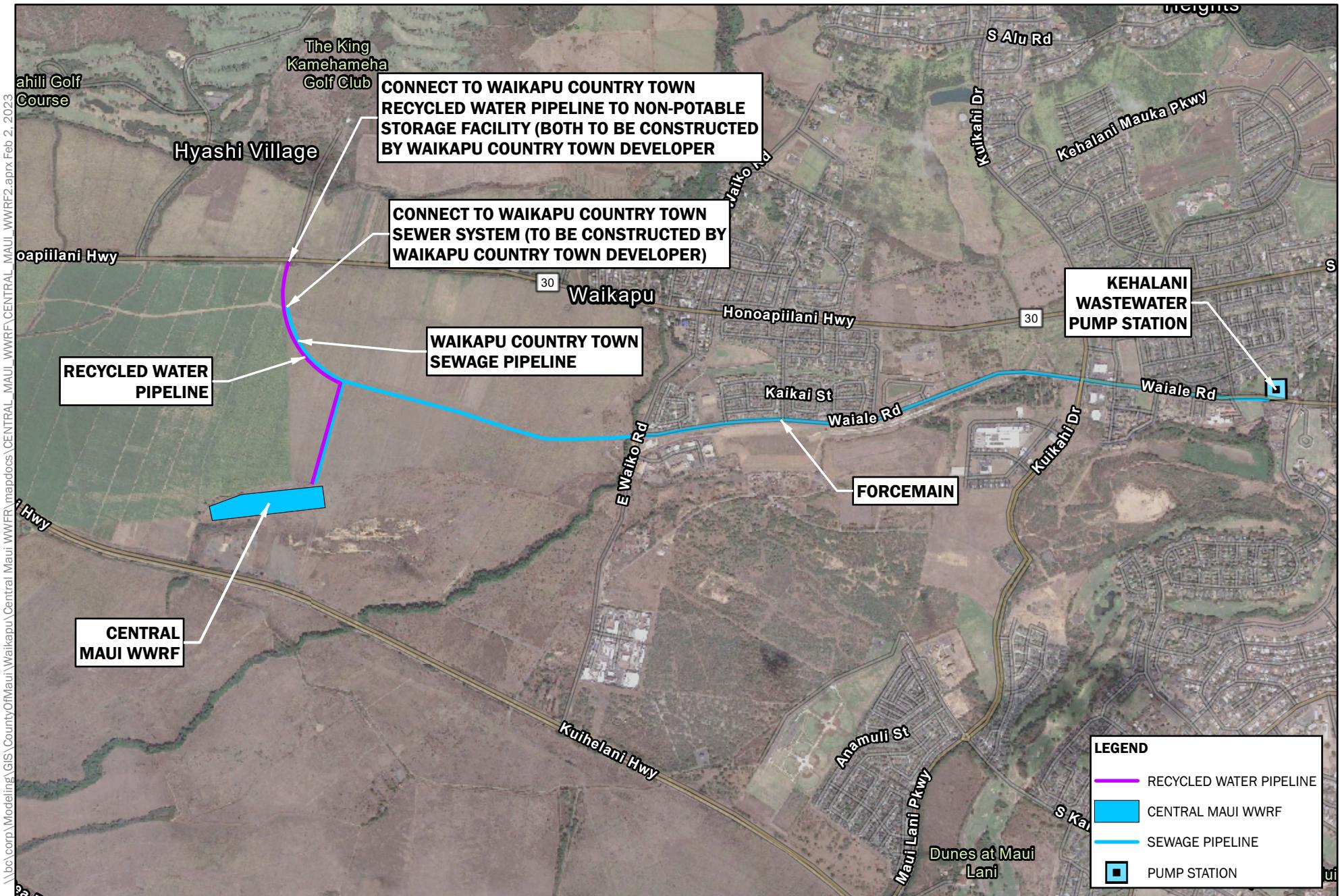
Should you have any questions, please do not hesitate to call Irina Constantinescu at (808) 442-3305, or Craig Lekven at (808) 442-3301.

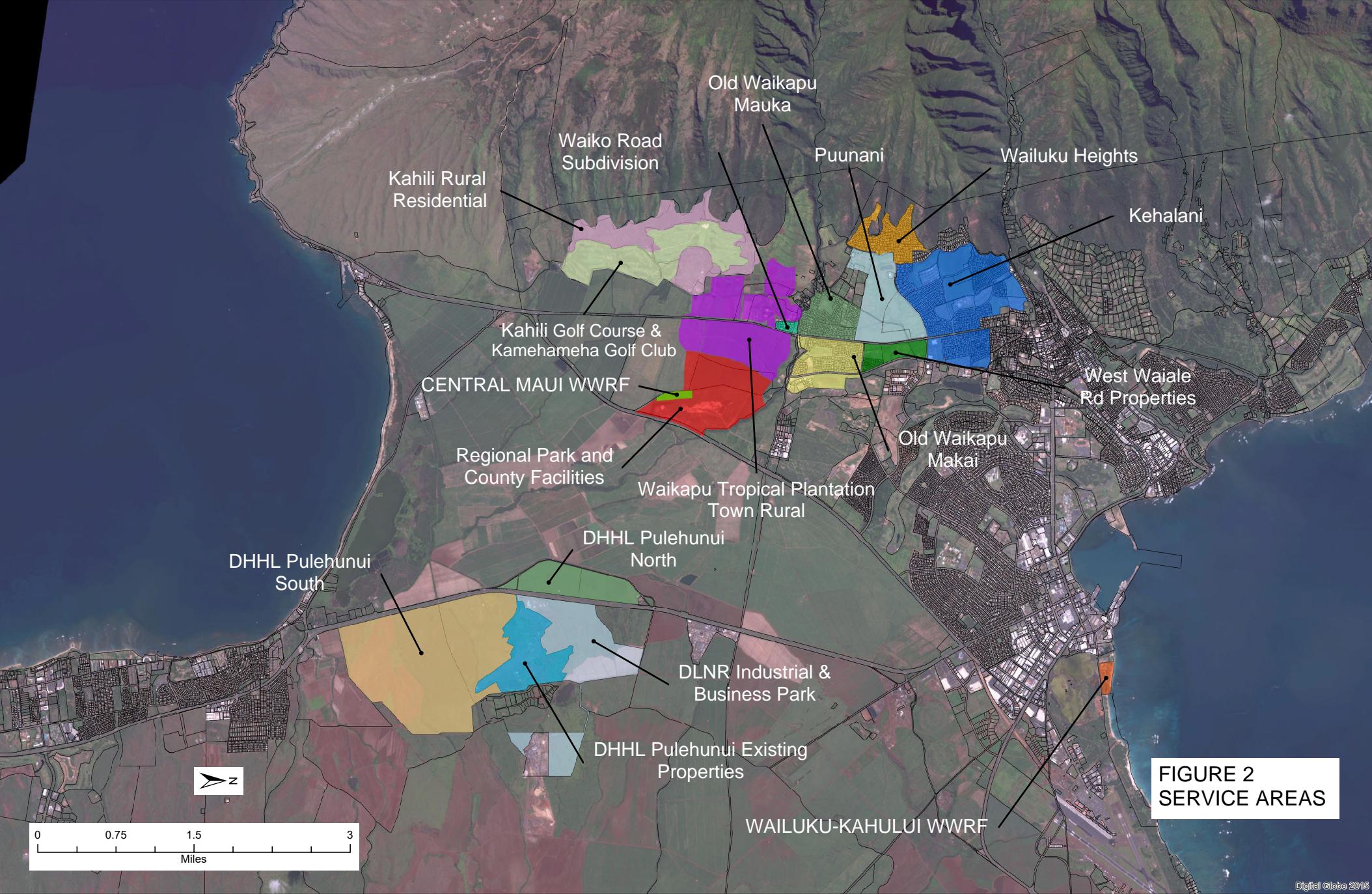
Very truly yours,

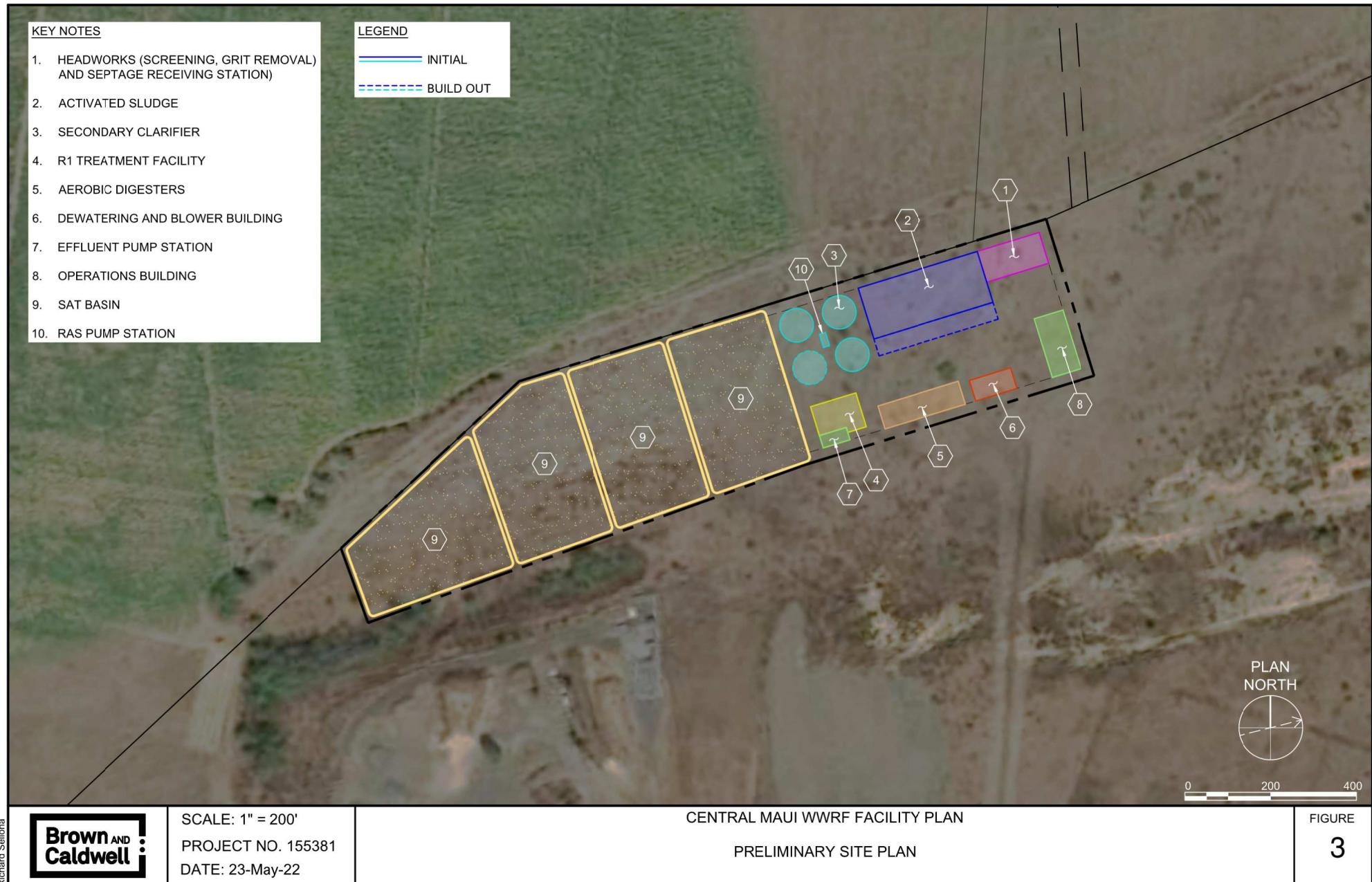
**Brown and Caldwell**

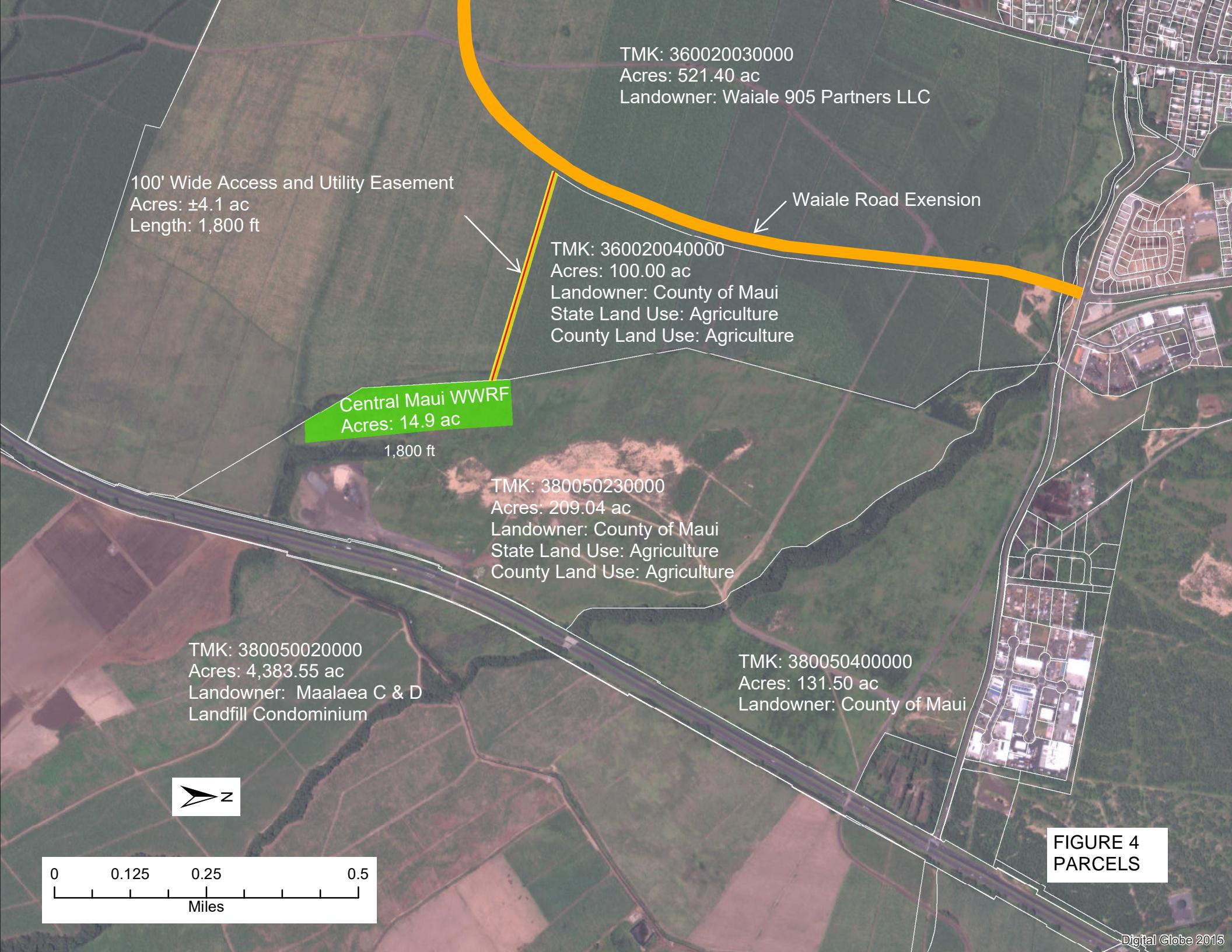
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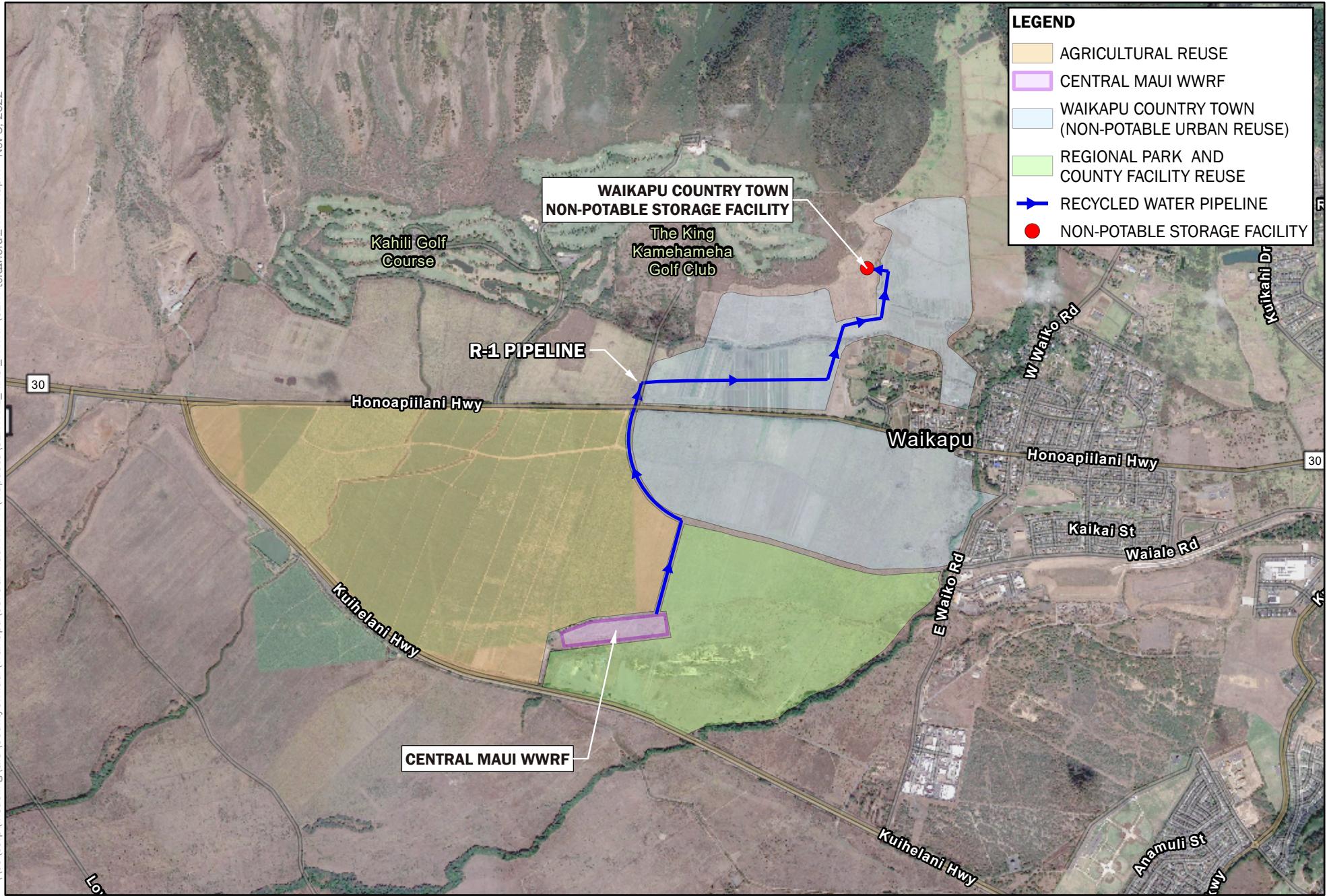
Irina Constantinescu  
Project Manager











COUNTY OF MAUI, HAWAII

CENTRAL MAUI WWRF EIS

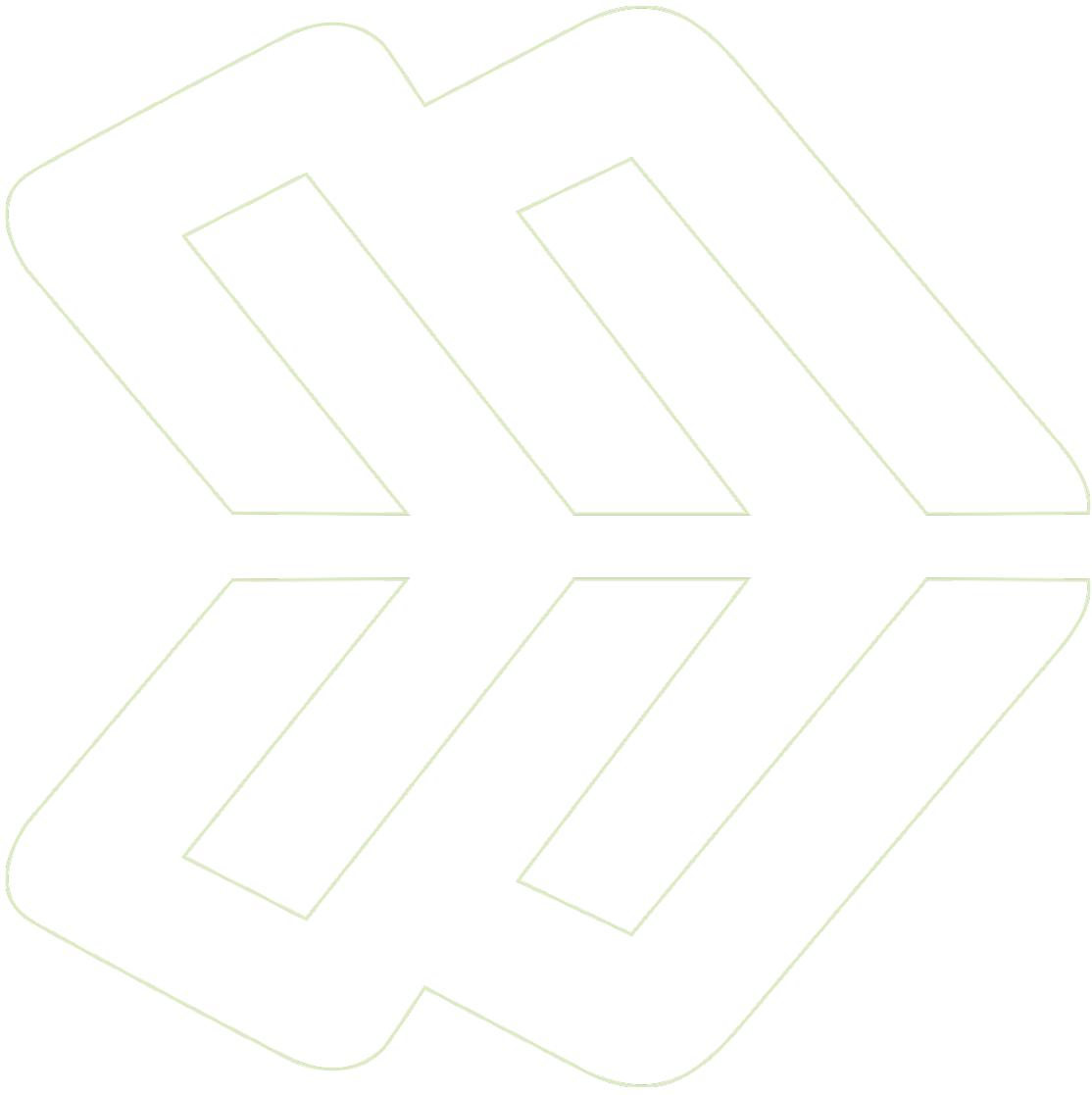
DATE: NOVEMBER 2022  
PROJECT: 158098

Notes:  
1. Aerial photo: Google Earth, 2019.



**FIGURE 5**

**CENTRAL MAUI WWRF  
RECYCLED WATER USE  
AREA BOUNDARIES**



**MUNEKIYO HIRAGA**

Planning. Project Management. Sustainable Solutions.