ALAN M. ARAKAWA Mayor STEWART STANT Director MICHAEL MIYAMOTO **Deputy Director**



MICHAEL RATTE Solid Waste Division ERIC NAKAGAWA, P.E. Wastewater Reclamation Division

COUNTY OF MAU! DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

2050 MAIN STREET, SUITE 2B WAILUKU, MAUI, HAWAII 96793

June 13, 2017

Mr. Scott Glenn, Director Office of Environmental Quality Control Department of Health. State of Hawaii 235 S. Beretania Street, Room 702 Honolulu, Hawaii 96813



SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE FOR MAUI ALL NATURAL ALTERNATIVE, LLC's "RENEWABLE ENERGY CONVERSION AND SLUDGE PROCESSING FOR THE WAILUKU-KAHULUI WASTEWATER RECLAMATION FACILITY (WKWWRF)" **PROJECT**

Dear Mr. Glenn:

With this letter, the County of Maui, Department of Environmental Management, hereby transmits the Environmental Impact Statement Preparation Notice (EISPN) for Maui All Natural Alternative, LLC's project for production of renewable electrical energy and provision of sludge drying services at the Wailuku-Kahului Wastewater Reclamation Facility.

The County of Maui, Department of Environmental Management has determined through its judgment and experience that an EIS is required. The County will be the accepting authority for the Draft Environmental Impact Statement (DEIS).

We understand that publication of the EISPN in the Environmental Notice will initiate a 30day public consultation period for parties to comment on the proposed action and to request to become consulted parties in the preparation of the DEIS.

Enclosed is a completed Office of Environmental Quality Control (OEQC) Publication Form. one copy of the EISPN, an Adobe Acrobat PDF file of the same, and an electronic copy of the publication form in MS Word. Simultaneous with this letter, we have submitted the summary of the action in a text file by electronic mail to your office.

We understand that the applicant will prepare a DEIS following the conclusion of the public comment period for simultaneous filing with your office and our agency.

If there are any questions, please contact me at (808) 270-8230.

Sincerely,

STEWART STANT

Director of Environmental Management

Enclosures

Xc: Jeff Walsh, Maui All Natural Alternative, LLC

APPLICANTPUBLICATION FORM

Project Name:	Renewable energy conversion and sludge processing for the Wailuku - Kahului Wastewater Reclamation Facility (WKWWRF)
Project Short Name:	WKWWRF Renewable Energy Project
HRS §343-5 Trigger(s):	Use of state or county lands, and use of land classified as conservation district.
Island(s):	Maui
Judicial District(s):	Wailuku District
TMK(s):	(2) 3-8-001:188 (portion)
Permit(s)/Approval(s):	Environmental Impact Statement(EIS), Special Management Area application and approval, Conservation District Use Permit, Department of Health Clean Air Branch, Non-Covered Source Air Permit, County of Maui Construction and Building Permits (Electrical, Fire, Plumbing, Grading) Community Noise Permit, as applicable; Special Flood Hazard Area Development Permit, as applicable, Federal Aviation Administration Notice of Proposed Construction, Stormwater Pollution Prevention Plan.
Approving Agency:	County of Maui, Department of Environmental Management
Contact Name, Email, Telephone, Address	Director Stewart Stant, stewart.stant@co.maui.hi.us, 808-270-7431, 2050 Main Street, Suite 2B, Wailuku, HI 96793
Applicant:	Maui All Natural Alternative, LLC (MANA)
Contact Name, Email, Telephone, Address	Jeff Walsh, jeff.walsh@anaergia.com (808) 729-1495; (760) 436-8870 X-108 5780 Fleet Street, Suite 310, Carlsbad, CA 92008
Consultant:	None
Contact Name, Email, Telephone, Address	

Status (select one) DEA-AFNSI	Submittal Requirements Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEA, and 4) a searchable PDF of the DEA; a 30-day comment period follows from the date of publication in the Notice.
FEA-FONSI	Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; no comment period follows from publication in the Notice.
FEA-EISPN	Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; a 30-day comment period follows from the date of publication in the Notice.
X Act 172-12 EISPN ("Direct to EIS")	Submit 1) the approving agency notice of determination letter on agency letterhead and 2) this completed OEQC publication form as a Word file; no EA is required and a 30-day comment period follows from the date of publication in the Notice.
DEIS	Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEIS, 4) a searchable PDF of the DEIS, and 5) a searchable PDF of the distribution list; a 45-day comment period follows from the date of publication in the Notice.
FEIS	Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEIS, 4) a searchable PDF of the FEIS, and 5) a searchable PDF of the distribution list; no comment period follows from publication in the Notice.
FEIS Acceptance Determination	The approving agency simultaneously transmits to both the OEQC and the applicant a letter of its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS; no comment period ensues upon publication in the Notice.

	February 2016 Revision
FEIS Statutory Acceptance	The approving agency simultaneously transmits to both the OEQC and the applicant a notice that it did not make a timely determination on the acceptance or nonacceptance of the applicant's FEIS under Section 343-5(c), HRS, and therefore the applicant's FEIS is deemed accepted as a matter of
	law.
Supplemental EIS Determination	The approving agency simultaneously transmits its notice to both the applicant and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is or is not required; no EA is required and no comment period ensues upon publication in the Notice.
Withdrawal	Identify the specific document(s) to withdraw and explain in the project summary section.
Other	Contact the OEQC if your action is not one of the above items.

Applicant Publication Form

Project Summary

Office of Environmental Quality Control

Provide a description of the proposed action and purpose and need in 200 words or less.

The County selected Maui All Natural Alternative, LLC ("MANA") at the conclusion of an RFP process for a renewable energy and sludge drying solution. MANA proposed to install an anaerobic digester and associated appurtenances onsite, which will anaerobically digest energy crops grown on former Hawaiian Commercial & Sugar (HC&S) plantation lands and sourced locally from Central Maui Feedstocks, LLC. The product of the anaerobic digestion process is renewable methane in the form of biogas that is treated on site and used to fuel a combined heat and power (CHP) engine for electrical power generation. Waste heat from the CHP with additional biogas will provide the required heat for the drying of all the municipally generated wastewater biosolids produced on Maui. The Project is not designed to export electrical energy to the grid. The entire facility will be located on the west side of the existing aerobic blower building and well within the confines of the WKWWRF. All energy crops will be grown on existing agricultural land.

The Project goals are to provide locally sourced renewable energy to assist the County of Maui in achieving its renewable goals and to provide a long term sustainable solution for biosolids management.

Environmental Impact Statement Preparation Notice

Renewable Energy Conversion and Sludge Processing for the Wailuku - Kahului Wastewater Reclamation Facility (WKWWRF)

> 281 Amala Place Kahului, Maui, Hawaii

> > Prepared for:



County of Maui
Department of Environmental Management

Prepared by:



June 2017

Project Background

The County of Maui (County), Department of Environmental Management expressed a specific need to incorporate a "Renewable Energy and Sludge Processing Facility for the Wailuku-Kahului Wastewater Reclamation Facility (WKWWRF)" ("Project"). Its goals were to have a sustainable supply of firm renewable electrical energy to power the operations of the WKWWRF and further to provide drying services for all the municipally generated wastewater sludge on Maui.

Currently, the WKWWRF procures energy from the Maui Electric Company's grid at a significantly high price despite unusually low cost of fossil fuels. Additionally, the energy used is largely non-renewable. The WKWWRF also has a high cost associated with the processing of municipally generated wastewater biosolids; the biosolids are presently being mixed with green waste to produce compost at the Central Maui Landfill.

The County published a request for proposal (RFP) in early 2016 to design, build, own, operate and maintain a renewable energy and dryer project through a power purchase agreement and sludge drying service contract. Maui All Natural Alternative, LLC (MANA) submitted a proposal using locally grown energy crops to produce renewable biogas for both energy production and biosolids drying. The County selected MANA to provide the services of the RFP and has entered into a 20 year service contract for the Project. The Project is consistent with the County's and State's goals of energy security and renewability.

Project Location

The proposed Project will be located on Amala Place on a site wholly within the WKWWRF property on the northern shore of Kahului See **Figure 1**. The property is owned by the State of Hawaii and the County's usage is pursuant to State Executive Order. The subject property is in the State Land Use Conservation District, is designated Public/Quasi-Public in the Wailuku-Kahului Community Plan, and is zoned Airport by Maui County Zoning. The subject property is adjacent to the Kanaha Pond Wildlife Sanctuary, is in the County of Maui Special Management Area, and is in the tsunami inundation area.

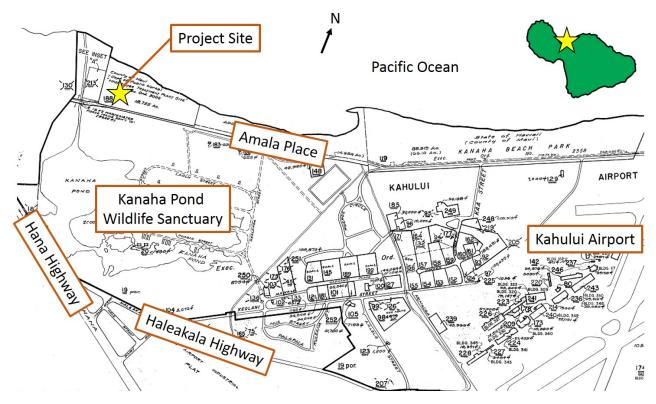


Figure 1 - Project Location Map

Project Overview

The County selected Maui All Natural Alternative ("MANA") at the conclusion of the RFP process. MANA proposes to install an anaerobic digester and associated appurtenances onsite, which will digest energy crops grown on former Hawaiian Commercial & Sugar (HC&S) plantation lands and sourced locally from Central Maui Feedstocks LLC. The primary product of this digestion process is a renewable natural gas (biogas) that is refined on site and used to fuel a combined heat and power (CHP) engine for electrical power generation. Waste heat derived from the combustion of the renewable fuel from the CHP combined with biogas fuel will provide the required heat for the drying of all the municipally generated wastewater sludge produced on Maui. The Project is not designed to export electrical energy to the grid.

The Project will be designed to provide the following related benefits.

- The use of renewable energy through this project will assist the County of Maui in working toward the statewide goal of 100 percent renewable energy for power generation.
- The energy crops ("feedstock") for the Project will be grown on the island of Maui, providing renewable energy security for the WKWWRF.
- The facility's carbon footprint is reduced through reduction in greenhouse gas emissions.

- Fossil fuels currently used for power generation will be displaced with firm renewable biogas.
- The conversion of wastewater biosolids into a Class A fertilizer product will provide a
 nutrient-rich soil amendment product for use on County properties or sold to private
 agricultural businesses, providing a potential source of revenue for the County as well as
 stimulating economic development and preserving agriculture.

The entire facility with all associated equipment will be located on the west side of the existing aerobic blower building and well within the confines of the WKWWRF. See **Figures 2 and 3**.

The project has been sited on the WKWWRF in coordination with County Staff to not interfere with the daily operations of the wastewater treatment operations. The Project is consistent with the existing industrial and commercial uses in the general vicinity and zoning.

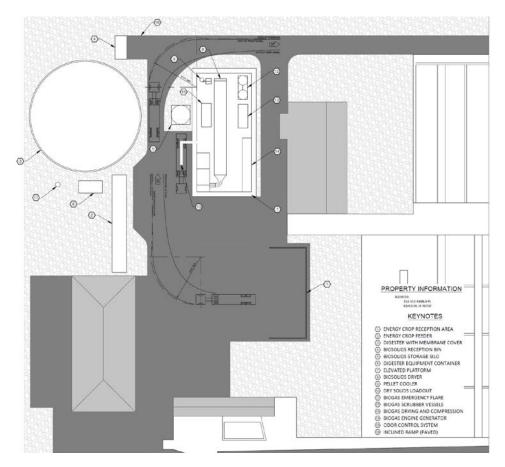


Figure 2 - MANA Plant Site Plan

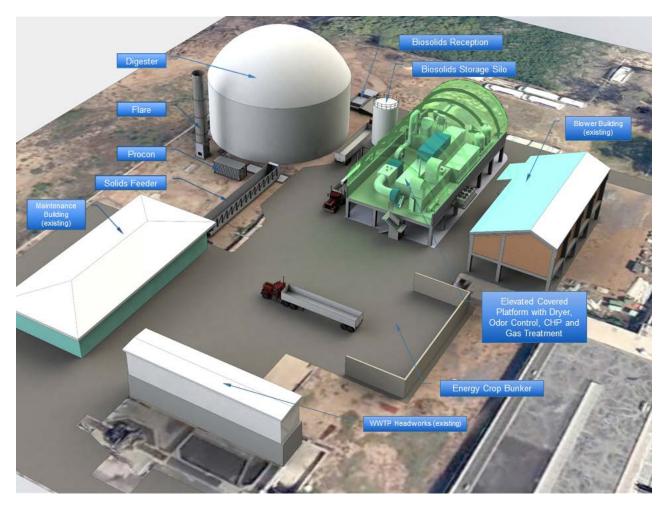


Figure 3 - MANA Project Site Rendering

Project Technical, Economic, Social, and Environmental Characteristics

The Draft Environmental Impact Statement (DEIS) will contain a detailed description of the existing land use designations and current uses of the subject property. The property owner and other attributes of the property will be identified in the DEIS. The DEIS will also contain a detailed Project description, including technical data and diagrams, as well as the economics, phasing, and timing of the proposed action. Site plans and renderings will be provided to describe the final appearance of the Project.

Description of the Affected Environment

The DEIS will contain applicable regional, location and site maps to ensure that the project site is appropriately identified. The DEIS will also contain an applicable Flood Insurance Rate Map,

United States Geological Survey topographic map, and other maps to adequately describe the physical environment of the region. The DEIS will also assess potential impacts and proposed mitigation measures related to the following topics: air and water, soils and topography, flora/fauna, drainage, traffic, ambient noise, cultural resources, archaeological resources, and coastal zone management resources. The DEIS will address the requirements of Hawaii Revised Statutes, Chapter 343, and Hawaii Administrative Rules Section 11-200.

Identification of Alternatives for the project

Alternatives were considered within the context of the need identified by the County in the RFP to have a self-sustainable supply of firm renewable energy to power the WKWWRF and not be reliant on fossil fueled generated grid power. The RFP also stipulated the need to address the high cost associated with the present processing of municipal sludge through use of a system to process and dry the sludge at the WKWWRF. The proposed Project met the economic needs of the County and was chosen by the County for implementation. The DEIS will provide an analysis of the following project alternatives.

Proposed Project (Alternative 1): Energy crop digestion with CHP and biosolids drying

The County RFP expressed a long-term clean energy and electric grid independence strategy in moving toward the ultimate goal of utilizing 100 percent renewable energy. One step is to provide firm renewable power to meet the needs of the WKWWRF. The costly processing of the sludge drying at the WKWWRF would make it prohibitively expensive and co-composting would need to be sustained. The DEIS will provide a complete analysis for Alternative 1.

<u>Status Quo - Do Nothing (Alternative 2): Continued use of utility supplied power and co-composting for sludge processing</u>

Currently, the WKWWRF procures energy from the Maui Electric Company's grid at a significantly high price despite unusually low cost of fossil fuels. Additionally, the energy used is largely non-renewable. The WKWWRF also has a high cost associated with the processing of municipally generated wastewater sludge; sludge is presently being mixed with green waste to produce compost at the Central Maui Landfill. Both the cost of non-renewable power and co-composting of sludge present budgetary uncertainty to the County with no fixed pricing. Additionally, the co-composting of waste sludge with green waste has proven to be challenging to market, as a compost product. The DEIS will provide an analysis for Alternative 2.

Alternative 3: Consideration of Solar with Battery Storage

A combination of a Solar and Storage Battery facility would have to provide the equivalent of 1800KW of combined firm energy and heat to satisfy the needs of the Project. The large footprint of suitable land required within close proximity of the Kahului Airport and the Kahana Pond Wildlife Sanctuary would make this alternative challenging. Supplemental power needed for non-

availability period due to weather would also have to be provided by other sources such as the existing utility. The DEIS will provide an analysis for Alternative 3.

Identification of an Analysis for Significant Criteria considerations

Identification of an analysis for Significant Criteria considerations will be fully analyzed in the DEIS. The EISPN used Hawaii Administrative Rules 11-200 Sub Chapter 6 Section 11-200-12, to identify with potential Significance Criteria. They include:

<u>Criteria B1: "Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;"</u>

The PROJECT does not identify a significant impact under this Criteria.

Criteria B2: "Curtails the range of beneficial uses of the environment;"

The PROJECT does not identify a significant impact under this Criteria.

<u>Criteria B3: "Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;"</u>

The PROJECT does not identify a significant impact under this Criteria.

<u>Criteria B4: "Substantially affects the economic welfare, social welfare, and cultural practices of the community or State;"</u>

The PROJECT does not identify a significant impact under this Criteria.

Criteria B5: "Substantially affects publichealth;"

The PROJECT does not identify a significant impact under this Criteria.

<u>Criteria B6: "Involves substantial secondary impacts, such as population changes or effects on public facilities;"</u>

The PROJECT does not identify a significant impact under this Criteria.

Criteria B7: "Involves a substantial degradation of environmental quality;"

The PROJECT does not identify a significant impact under this Criteria.

<u>Criteria B8: "Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;"</u>

The PROJECT does not identify a significant impact under this Criteria.

Criteria B9: "Substantially affects a rare, threatened, or endangered species, or its habitat;"

The DEIS will perform an analysis of construction and operation of the MANA project providing mitigating steps and controls ensuring protection of all wildlife, plant and fauna within the confines of the Kanaha Pond Wildlife Sanctuary, The waterfowl sanctuary is home to over fifty species of birds, including three endangered Hawaiian bird species, the Hawaiian stilt (ae'o), the Hawaiian coot ('alae) and the Hawaiian duck (koloa). The DEIS analysis will include "mitigation measures" by incorporating and scheduling activities during construction to avoid impacts to the protected wildlife. The DEIS will also include mitigating measures to protect any nesting grounds found within the project area and perform an analysis of all species of the birds classified as "endangered" and "migratory". This analysis will include guidance provided by the Federal Endangered Species Act and the Migratory Bird Treaty Act.

Criteria B10: "Detrimentally affects air or water quality or ambient noise levels;"

The DEIS will address and include all mitigating measures and controls for compliance with State and Federal statutory regulations for the required State Air and Water permits and all related testing to obtain these permits. Noise and odor impacts as well as any controls and mitigation measures that to be implemented by the Project will be discussed in the DEIS.

<u>Criteria B11: "Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion – prone area geologically hazardous land, estuary, fresh water or coastal waters:"</u>

The existing WKWWRF is located within the flood and tsunami inundation zone. The DEIS will address and include any mitigating measures required by the Project to comply with County Building requirements and construction requirements within these areas.

Criteria B.12: "Substantially affects scenic vistas and view planes;"

The DEIS will address and include any mitigating measures to minimize impact to with views from Hana Highway looking north across the Kanaha Pond Wildlife Sanctuary and any impairment of views along the shoreline from Amala Place.

Criteria B.13: "Requires substantial energy consumption;"

The PROJECT does not identify a significant impact under this Criteria.

Project Approvals

The proposed project will be sited on land located within the State Land Use Conservation District and the County of Maui Special Management Area. Thus, a Conservation District Use Permit and a Special Management Area Use Permit will be required. In addition, applicable grading and building permits will be required prior to project implementation.

Project Schedule

The EIS process is anticipated to be complete by the end of 2017. Permitting activities are anticipated to be complete by the middle of 2018. The project is anticipated to be operational by the end of 2019.

Summary

The EISPN is the first step in the process to provide a full EIS for this project, which will provide the County of Maui with a pathway to firm renewable energy produced on Maui and a reduction of co-composting of a product that is not sustainable. The responses, from all stakeholders, to this EISPN will provide valuable advice and feedback to the applicant and the County for development of the DEIS.